NATIONAL PLANNING AUTHORITY

THIRD NATIONAL DEVELOPMENT PLAN (NDPIII) 2020/21 – 2024/25

REPUBLIC OF UGANDA

January 2020

Uganda Vision 2040

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THIRD NATIONAL DEVELOPMENT PLAN (NDPIII) 2020/21 – 2024/25

VISION

"A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years"

GOAL

"To Increase Average Household Incomes and Improve the Quality of Life of Ugandans"

THEME

"Sustainable Industrialization for inclusive growth, employment and sustainable wealth creation"

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ABBREVIATIONS AND ACRONYMS

ACD Anti-Corruption Division

AfCFTA African Continental Free Trade Area

AfDB African Development Bank

AFROSAL African Organization of Supreme Audit Institutions

AGI Agro-Industrialization

ANC Antenatal Care

ASSIP Accountability Sector Strategic Investment Plan

BCCU Bugisu Coffee Cooperative Union

BTVET Business, Technical and Vocational Training

BOU Bank of Uganda

CCD Climate Change Department

CDOs Community Development Officers

CMA Capital Markets Authority

CME Community Mobilization and Empowerment

CNDPF Comprehensive National Development Planning Framework

COMESA Common Market for East and Southern Africa

CNOOC China National Oil Corporation

CSOs Civil Society Organisations

CTC Cut, Tear and Curl

DDA Dairy Development Authority

DDEG Discretionary Development Equalisation Grant

DFS Digital Financial Services

DIT Department of Industrial Training

DLG District Local Government

DPP Directorate of Public Prosecution

DPs Development Parnters

DRMS Domestic Revenue Mobilisation Strategy

EAC East African Community

EBA European Union Everything But Arms

ECCE Early Childhood Care and Education

ECD Early Childhood Development

ESIAs Environmental, Social and Impact Assessments

EPRC Economic Policy Research Centre

ERA Electricity Regulatory Authority

FBOs Faith Based Organizations

FDC Forum for Democratic Change

FDI Foreign Direct Investment

FID Final Investment Decision

FGM Female Genital Mutilation

FSDS Financial Sector Development Services

GAPR Government Annual Performance Report

GDP Gross Domestic Product

GER Gross Enrollment Ratio

GKMA Greater Kampala Metropolitan Area

HCs Health Centers

HCI Human Capital Index

HDI Human Development Index

HRBA Human Rights Based Approach

HTTI Hotel and Tourism Training Institute

IBP Integrated Bank of Projects

ICBT Informal Cross Border Trade

ICT Information and Communication Technology

IFMIS Integrated Finance Management Information System

IG Inspectorate of Government

ITNS Insecticides Treated Nets

IPP Integrated Personal and Payroll System

IRA Insurance Regulatory Authority

ISO International Organization for Standardization

KCCA Kampala Capital City Authority

KIBP Kampala Industrial and Business Park

KIIDP Kampala Capital Authority Infrastructure Development Project

LED Local Economic Development

LGs Local Governments

MAAIF Ministry of Agriculture Animal Industry and Fisheries

MATIP Market and Agricultural Trade Improvement Project

MDAs Ministries Departments and Agencies

MEMD Ministry of Energy and Mineral Development

MKCC & MA

MoTIC Ministry of Trade Industry and Cooperatives

MICE Meetings, Incentives, Conferences and Events

MAAIF Ministry of Agriculture Animal Industry and Fisheries

MoD Ministry of Defense

MoEACA Ministry of East African Community Affairs

MoES Ministry of Education and Sports

MoFA Ministry of Foreign Affairs

MoFPED Ministry of Finance Planning and Economic Development

MOH Ministry of Health

MoGLSD Ministry of Gender Labour and Social Development

MoIA Ministry of Internal Affairs

MoICT & NG Ministry of Information and Communication Technology and National Guidance

MoJCA Minsitry of Justice and Constitutional Affairs

MoLG Ministry of Local Government

MoLHUD Ministry of Lands Housing and Urban Development

MoPS Ministry of Public Services

MoSTI Ministry of Science Technology and Innovation

MoTWA Ministry of Tourism, Wildlife and Antiquities

MoWE Ministry of Water and Environment

MoWT Ministry of Works and Transport

MPs Members of Parliament

MSMEs Micro Small and Medium Enterprises

MTR Mid-Term Review

NAADS National Agricultural Advisory Services

NAGRC& DB National Animal Genetic Resource center and Data Bank

NARO National Agricultural Research Organization

NDCs Nationally Determined Contributions

NER Net Enrollment Ratio

NFA National Forestry Authority

NFLC National Farmer Leadership Centre

NRI Networked Readiness Index

NCHE National Council of Higher Education

NPA National Planning Authority

NARO National Agricultural Research Organization

NCDC National Curriculum Development Centre

NCDs Non Communicable Diseases

NDP National Development Plan

NEMA National Environmental Management Authority

NFA National Forestry Authority

NGOs Non-Governmental Organizations

NIMES National Integrated Monitoring and Evaluation Strategy

NITA National Information Technology Authority

NMT Non-Motorized Transport

NRM National Resistance Movement

NSS National Statistics System

NSSF National Social Security Fund

NTMs Non-Tariff Measures

OAG Office of the Auditor General

OP Office of the President

OPM Office of the Prime Minister

OWC Operation Wealth Creation

PAP Project Affected Persons

PAU Petroleum Authority of Uganda

PFM Public Finance Management

PFMA Public Finance Management Act

PIP Public Investment Plan

PIMS Public Investment Management Strategy

PPDA Public Procurement and Disposal of Public Assets Authority

PPP Public Private Partnership

PSFU Private Sector Foundation Uganda

PSRs Public Sector Reforms

PWDs Persons with Disabilities

QHSSE Quality Health Safety Security and Environment

QMS Quality Management Systems

REE Rear Earth Elements

R&D Research and Development

ROM Results Oriented Managment

ROW Right of Way

SACCOs Saving ad Credit Cooperative Organizations

SAGE Social Assistance Grant for Empowerment

SDGs Sustainable Development Goals

SDPs Sector Development Plans

SGR Standard Gauge Railway

STEM Science, Technology, Engineering and Mathematics

STI Science Technology and Innovation

STEI Science Technology, Engineering and Innovation

SMEs Small and Medium Enterprises

SOE State Owned Enterprises

TRWR Total Renewable Water Resources

TSA Tourism Satellite Account

TSA Treasury Single Account

TVET Technical and Vocational Education and Training

UBC Uganda Broadcasting Cooperation

UCAA Uganda Civil Aviation Authority

UBOS Uganda Bureau of Statistics

UCC Uganda Communications Commission

UCDA Uganda Coffee Development Authority

UCE Uganda Commodity Exchange

UDB Uganda Development Bank

UDC Uganda Development Cooperation

UEDCL Uganda Electricity Distribution Company Limited

UEGCL Uganda Electricity Generation Company Limited

UETCL Uganda Electricity Transport Company Limited

UEPB Uganda Export Promotions Board

UFZA Uganda Free Zones Area

UHRC Uganda Human Rights Commission

UIRI Uganda Industrial Research Institute

UK United Kingdom

UMA Uganda Manufactures Association

UNBS Uganda Bureau of Standards

UNDESA United Nations Department of Economics and Social Affairs

UNECA United Nations Economic Commission for Africa

UNMA Uganda National Metrological Authority

UNOC Uganda National Oil Company

UPC Uganda People's Congress

UPE Universal Primary Education

UPF Uganda Police Force

UNHS Uganda National Household Survey

UNRA Uganda Road Authority

URA Uganda Revenue Authority

URC Uganda Railway Cooperation

USE Uganda Securities Exchange

USSIA Uganda Small Scale Industries Association

USMID Uganda Support to Municipal Infrastructure Development

UIA Uganda Investment Authority

UIRI Uganda Industrial Research Institute

UNBS Uganda National Bureau of Standards

URA Uganda Revenue Authority

URSB Uganda Registration Service Bureau

UTB Uganda Tourism Board

UWA Uganda Wildlife Authority

UWEC Uganda Wildlife Education Centre

UWEP Uganda Women Empowerment Program

UWRSA Uganda Warehouse Receipt Systems Authority

UVRI Uganda Virus Research Institute

VHTs Village Health Teams

WHO World Health Organisation

YLP Youth Livelihood Program

FOREWORD

Uganda remains committed to the pursuit of socioeconomic transformation as envisioned in the country's long-term aspirations. I take this opportunity to present to you the third National Development Plan (NDPIII), whose goal is "Increased household incomes and improved quality of life". This goal is to be achieved under the overall theme of "Sustainable Industrialization for inclusive growth, employment and sustainable wealth creation". This is in line with Uganda Vision 2040, EAC Vision 2050, Africa Agenda 2063 and the Sustainable Development Goals (SDGs).

Since 1986, the National Resistance Movement (NRM) Government has been steadfast in ameliorating the living conditions and overall quality of life of the people of Uganda. The economy has done significantly well, most notably in the areas of improved peace and security, maintenance of macroeconomic stability, development of social and economic infrastructure and expansion of access to social services.

Over the years, a firm foundation for 'Take-Off' has been laid. This is evidenced by the doubled size of the economy's GDP from UGX64.23Bn in 2010/11 to 128.49Bn in 2018/19 in addition to significant expansion of economic and social Infrastructure in Energy, ICT, Transport, Health and Education.

The pursuit for industrialization is based on the need to accelerate growth of the economy, transform the lives of the people and strengthen the country's regional and international competitiveness. During the Plan period, we will focus on enhancing value addition in key growth opportunities (Agriculture, Tourism, Minerals, Oil & Gas and Knowledge) which have the highest potential to generate employment for our people and positive multiplier effects on other sectors. We will continue to invest in maintaining and developing productive infrastructure to reduce the cost of doing business and increase connectivity especially for those areas that are lagging behind. Increasing productivity, inclusiveness and wellbeing of the population will also be fundamental to improving the quality of life of the labourforce needed for industrialization as well as the life of Ugandans. In addition, the role of both the public and private sector will be strengthened in the delivery of services to the people and creation of jobs.

The Plan therefore, has laid out 18 programmes that comprehensively cover the development issues we face as a country. By 2025, effective implementation of these programmes is expected to lead to; average economic growth rate 7 percent, increase income per capita to USD 1,300, lower poverty rate to 15.4 percent, reduce income inequality (gini-coefficient) to 0.39; and further improve health and education outcomes of the population.

Achievement of the socioeconomic transformation aspirations is a concerted and collective effort. I urge all Ugandans including the Diaspora community to seize the investment opportunities presented in this Plan. Particularly, the Private Sector, Civil Society, Cultural Institutions, Faith-Based Organizations, and Development Partners have a significant role to play in the realization of the development aspirations. Leaders, policy makers and implementers should have the right attitude, ideological orientation and patriotism for effective and efficient service delivery and support to implementation. Similarly, the general public should have a positive mindset towards the Plan for its successful implementation.

With the assurance of sustained peace, stability and good-governance, which are very essential in development, we shall realize the goal of this Plan together.

I wish to appreciate all those who contributed towards the Development of this Plan.

For God and My Country.

Yoweri Kaguta Museveni

PRESIDENT OF THE REPUBLIC OF UGANDA

EXECUTIVE SUMMARY

This National Development Plan (NDP) is the third in a series of six NDPs that will guide the nation in delivering the aspirations articulated in Uganda Vision 2040. The NDPIII (2020/21 – 2024/25) is anchored on the progress made, challenges encountered and lessons learnt from previous planning and implementation experiences of NDPI and NDPII. The Plan defines the broad direction for the country and sets key objectives and targets for the sustainable socioeconomic transformation of Uganda.

Achievements, Challenges and Lessons learned

The key achievements that have been registered over the last decade include:

(i) Sustainable peace, security and macro-economic stability continued to prevail providing the basic anchor for economic growth and development.
(ii) The size of economy has doubled from UGX 64 trillion in FY 2010/11 to UGX 128 trillion in FY2018/19 in nominal terms.
(iii) GDP per capita has grown from USD 844 in FY2011/12 to USD 878 in FY 2018/19, despite the growth in population.
(iv) Domestic revenue collection increased from UGX 5.02 Trillion in FY2010/11 to UGX 16.359 trillion in FY2018/19 in nominal terms.
(v) Total exports of goods and services grew from USD 3.83 billion in FY2010/11 to USD 5.3 billion in FY2017/18, nominal terms.
(vi) Remittances increased from USD 819 million in FY2010/11 to over USD 1 billion in FY2017/18 in nominal terms.
(vii) The total paved roads network as a percentage of total national roads more than doubled from 8% in 1986 to 21.1% (or 4,551 km) as of May 2018.
(viii) Electricity generation capacity increased from 601MW in 2010 to 1839MW in 2020.
(ix) Access to and utilization of education services significantly increased, including increased enrollment for UPE as well as Business, Technical and Vocational Training (BTVET).
(x) Access to and utilization of health services also significantly increased.

However, there are a number of outstanding challenges, including:

(i) A large proportion of households (68.9 percent) still in the subsistence economy.
(ii) Insufficient creation of quality and gainful jobs in the economy, especially for the youth with an estimated unemployment rate of 13.3%. About 78% of the population is aged 30 years and below.
(iii) Whereas cost of electricity has reduced, it remains higher than the targeted 5 cents per unit.
(iv) Widening income inequality, particularly between the regions.
(v) Limited access to and high cost of capital
(vi) Low capacity in public service and prevalence of corruption
(vii) Severe reduction in the forest cover as well as wetland degradation and encroachment.
(viii) Dwindling local revenues insufficient to fund local service delivery.
(ix) Uncoordinated approaches to implementation planning.

(x) The Quality of education remains low characterized by the low levels of literacy and numeracy, coupled with the high rate of school dropout.
(xi) Inadequate functionality of health facilities and rising cases of non-communicable diseases.
(xii) Interest rate payments incurred on borrowed funds that are not immediately used for program and project implementation, coupled with poor program and project execution. In addition, many projects are not completed on time and within budget.

Based on the review of the country's performance during the past ten years of implementing the NDPs, a number of lessons have been learnt including:
(i) Increasing investment in the productive sectors of the economy to optimize use of the increased infrastructure capacity;
(ii) Revisiting the development approach, in particular the role of government in the development process. The market alone is unlikely to optimally drive Uganda's development process. A quasi market approach is required;
(iii) Re-focusing efforts on the production of appropriately skilled labour for the economy;
(iv) Improving the functionality and range of services provided by sub-counties and parishes in order to effectively address development needs at the local level;
(v) Increasing the effective utilization of alternative sources of development financing, like; the private sector, the pension fund, development partners and CSOs;
(vi) Breaking down the silo approach to planning, budgeting and implementation through the introduction of a program approach that brings together all stakeholders necessary to address a particular development issue;
(vii) Addressing the issue of land compensations for development projects;
(viii) Strengthening the role of government in increasing access to market opportunities in global and regional markets;
(ix) Strengthening Public Investment Management in order to increase the return on public investment.

Regional and Global Development Context

The Plan has also been designed with the regional and global development outlook. Key regional and global agenda informing the plan include; Africa Agenda 2063, Agenda 2030, EAC 2050 and other development frameworks. For example, the Africa Continental Free Trade Area (AfCFTA) which is likely to spur increased interest for foreign direct investment and open new markets for Ugandan products.

The plan is cognisant of the challenges and threats posed by the regional and global trends including: Climate change, regional conflicts leading to large scale population movements and loss of markets, cyber security, terrorism, epidemics, and brain drain stymying innovation, research and entrepreneurship capacity.

National Development Outlook

Over the Plan period, an economic growth rate of 7 percent is expected. The GDP per capita is expected to reach USUSD 1,301 therefore putting the country into middle income status. The economic growth strategy for the plan focuses on: Expanding the industrial base of the economy; consolidating and increasing the stock and quality of productive infrastructure; enhancing productivity especially in the agricultural sector; sustainable exploitation of natural resources; and supporting private sector development through providing affordable financing.

Developments in the external sector are expected to contribute positively to growth on account of growth in exports largely driven by agro-processing and increased domestic production. Core inflation is targeted within 5 percent and a prudent fiscal policy that includes a ceiling on debt to GDP of 50% in present value terms.

The overall development strategy of the plan is hinged on the need for rapid industrialization based on increased productivity and production in agriculture, while nurturing the potential of the tourism, minerals, oil and gas sectors.

Strategic Direction

The goal of this Plan is "To Increase Household Incomes and Improve Quality of Life of Ugandans". The goal will be pursued under the overall theme of **Sustainable Industrialization for inclusive growth, employment and sustainable wealth creation**. The key objectives of the Plan are:

1. Enhance value addition in key growth opportunities;
2. Strengthen the private sector to create jobs;
3. Consolidate and increase the stock and quality of productive infrastructure;
4. Enhance the productivity and social wellbeing of the population;
5. Strengthen the role of the state in guiding and facilitating development.

For successful implementation of the NDPIII, the following key development strategies will be pursued: i) Agro-Industrialization; ii) Fast-Track Oil, Gas and Mineral-Based Industrialization; iii) Import Replacement/Promotion of Local Manufacturing; iv) Export Promotion; v) Harness the Tourism Potential; vi) Provide a suitable fiscal, monetary and regulatory environment for the private sector to invest; vii) Increase local content participation; Institutionalize infrastructure maintenance; viii) Develop intermodal transport infrastructure to enhance interoperability; ix) Increase access to stable, reliable and affordable energy; x) Leverage urbanization as a driver for socio-economic transformation; xi) Improve access and quality of social services; xii) Institutionalize human resource planning for the economy; xiii) Enhance skills and vocational Development; xiv) Promote Science, Technology, Engineering and Innovation as well as ICT; xv) Increase access to social protection; xvi) Promote development-oriented mind-set; xvii) Increase government participation in strategic sectors; xviii) Increase Resource Mobilization for Implementation of National Development Programs; xix) Re-engineer the Public service to promote investment; and xx) Enhance partnerships with non-state actors for effective service delivery.

Expected results

At the end of the five-year period, the following key results are expected to be achieved: Reduced Poverty rates; from 21.4 percent to 14.2 percent; Reduced Income Inequality (Gini coefficient); from 0.41 to 0.38; Increased contribution of industry to GDP; from 18.6 percent to 25 percent; Rate of growth of the industrial sector from 6.1 percent to 8.1 percent; Rate of growth of the agricultural sector from 3.8 percent to 5.1 percent; Reduced Youth unemployment; from 13.3 percent to 6.6 percent; Increased value of manufactured exports in total exports; from 12.3 percent to 20 percent; Increase in the ratio of Exports to GDP from 12.7 percent to 20 percent; Increase in the share of intermediate goods (inputs for manufacturing) in total import bill from 18.6 percent to 25.5 percent; Reduction in the percentage of h/holds dependent on subsistence agriculture as a main source of livelihood from 68.9 percent to 55 percent; Increased electricity consumption per capita from 100kwh to 578kwh; Increased forest cover; from 9.5percent to 18percent; Reduction in the cost of electricity to USD 5 cents for all processing and manufacturing enterprises; Increased population with access to electricity; from 21 percent to 60 percent; Increased coverage of the national broadband infrastructure to 45% of total number households and 70% of the total number of schools.

NDPIII programmes

The Plan has identified eighteen (18) programs that have been designed to deliver the required results under this Plan. These programmes incorporate the country's commitments to regional and international development frameworks and cross cutting issues. The corresponding human resource requirements for each programme have also been outlined.

Agro-industrialisation programme: aims to increase commercialisation and competitiveness of agricultural production and agro processing. Key results include: increasing export value of selected agricultural commodities, increasing the agricultural sector growth rate, increasing labour productivity in the agro-industrial value chain, creating jobs in agro-industry, and increasing the proportion of households that are food secure.

Mineral Development Programme: aims to increase mineral exploitation and value addition in selected resources for quality and gainful jobs in industrialisation. Key results include: reducing the volume and value of imported iron and steel and inorganic fertilisers; increasing the volume and value of refined gold exports and copper; increasing investment into the exploration and processing of selected mineral; and creating more jobs in the mining sub-sector.

Sustainable Development of Petroleum resources: aims to attain equitable value from the petroleum resources and spur economic development in a timely and sustainable manner. Expected results: reducing the volume and value of imported petroleum and petroleum products, increasing revenue from oil and gas sub-sector and its contribution to GDP as well as creating more employment opportunities for Ugandans along the petroleum value chain.

Tourism Development Programme: aims to increase Uganda's attractiveness as a preferred tourist destination. Expected results include; increasing tourism arrivals and revenues as well as employment in the tourism sector.

Climate Change, Natural Resources, Environment, and Water Management: aims to stop and reverse the degradation of Water Resources, Environment, Natural Resources as well as the effects of Climate Change on economic growth and livelihood security. Expected results relate to; increasing land area covered under forests and wetlands, increasing compliance of water permit holders with permit conditions and enhancing the accuracy of meteorological information.

Private Sector Development Programme: aims to increase competitiveness of the private sector to drive sustainable inclusive growth. Tackling the challenges of the weak private sector will lead to the achievement of the following; reduction of the informal sector, strong and competitive Micro, Small and Medium Enterprises, increased proportion and value of public contracts and sub-contracts that are awarded to local firm, and increased volume of private sector investment in key growth areas.

Manufacturing Programme: aims to increase the product range and scale for import replacement and improved terms of trade. The expected results include: increased share of manufactured exports to total exports, growth in the industrial sector contribution to GDP, and increased share of labour force employed in the industrial sector.

Integrated Transport Infrastructure and Services Programme: aims to have a seamless, safe, inclusive and sustainable multi-modal transport system. Key expected results include: reducing the average travel time; reducing freight transportation costs; increasing the stock of transport infrastructure; increasing average infrastructure life span and reducing fatality and causalities from transport accidents.

Energy development Programme: aims to increase access and consumption of clean energy. Expected results include: increase in primary energy consumption; increase in the proportion of population accessing electricity; reduction in the share of biomass energy used for cooking; increase in transmission capacity; and enhanced grid reliability.

Digital Transformation Programme: aims to increase ICT penetration and use of ICT services for social and economic development. Expected results relate to: increasing ICT penetration; reducing cost of ICT devices and services; creating more direct jobs in the sector; and increasing government services online.

Sustainable Urbanisation and Housing Programme: aims to attain inclusive, productive and liveable urban areas for socioeconomic transformation. Expected results include: decreasing urban unemployment; reducing the housing deficit; enhanced economic infrastructure in urban areas; increasing efficient in solid waste collection; and more coverage of urban green spaces.

Human Capital Development Programme: aims to increase productivity of the population for increased competitiveness and better quality of life for all. Expected results include: increased proportion of labour force transiting to gainful employment; increased years of schooling; improved child and maternal outcomes; increased life expectancy; access to safe and clean water and sanitation; and increased access by population to social protection.

Innovation, technology development and Transfer Programme: aims to increase development, adoption, transfer and commercialization of Technologies & Innovations through the development of a well-coordinated STI eco-system. As a result, Gross Expenditure on R&D and business enterprise sector spending on R&D will be increased as well as improvement of the country's global innovation index.

Community Mobilisation and Mindset Programme: aims to empower families, communities and citizens to embrace national values and actively participate in sustainable development. Key results include: increased the participation of families, communities and citizens in development initiatives; enhanced media coverage of national programmes; and better uptake and/or utilisation of public services (education, health, child protection etc.) at the community and district level.

Governance and Security Programme: aims to improve adherence to the rule of law and capacity to contain prevailing and emerging security threats. Key results to be achieved over the plan period include: improvement in the corruption perception and democratic indices; increased case disposal rate; and increased percentage of districts with one stop frontline JLOS service points.

Public Sector Transformation Programme: aims to improve public sector response to the needs of the citizens and the private sector. As a result, improvements in the following indices are expected; government effectiveness, public service productivity, global competitiveness and corruption perception indices. In addition, there will be increased proportion of the population satisfied with public services.

Regional Development Programme: aims to accelerate equitable regional economic growth and development.

Development Plan Implementation Programme: aims to increase the efficiency and effectiveness in the implementation of the Plan. Over the plan period, the following results are expected: increased GDP growth rate, increased revenue, and improvements in alignment of plans and budgets.

Cost of the Plan

To achieve the planned objectives and results, the overall cost of financing all the NDPIII planned program interventions over the 5-year period is estimated at around UGX 342,607Bn. Of this, UGX213,913 Bn would be funded by the Public. The remaining UGX128,164 Bn would be funded by the private sector. This represents about 62.4 percent being public and 38.6 percent as private sector contribution. The costing follows both the Programme and the current sector approach

Implementation, Risk Management, Monitoring and Evaluation

Implementation reforms have been identified for each programme to ensure the delivery of the desired results.

The programme implementation architecture provides a coordinated framework to focus on delivery of common results and reduce 'silo' working modality and enhance synergies. This will require strengthening the coordinating role of the Office of the Prime Minister.

In order to ensure operationalization of the Plan, the Sector, Ministry, Agency and Local Government plans will be aligned to the NDPIII. Implementation of these plans will also be linked to the Programme Based Budgeting System (PBBS). In addition, development partners will align their frameworks to meet the aspirations of the Plan.

The Plan acknowledges the need for risk informed development as a process and not an event. This is because there is a continuous interaction across local, regional and global risks including; terrorism, epidemics, cybercrime, natural hazards and disasters, climate change, organized economic crimes and sabotage among others. The plan has therefore identified, analysed various potential risks and prescribed possible mitigation, continuous monitoring and management measures during the plan period.

Monitoring and Evaluation of the plan will be strengthened through the introduction of systemic and institutional reforms for improved effectiveness during NDPIII. Some of these include: rolling out and operationalizing an integrated Web based NDP performance monitoring system that interfaces with the Programme Budgeting System and IFMIS; as well as operationalization of a High-Level Public Policy Management Executive Forum (Apex Platform) to strengthen effective public policy management and promotion of good governance practices.

PART I: BACKGROUND AND DEVELOPMENT CONTEXT

CHAPTER 1: BACKGROUND

1.1 Introduction

1. **The Uganda Vision 2040 aims to transform the Ugandan society from a peasant to a modern and prosperous society**. This National Development Plan (NDP) is the third in a series of six NDPs that will guide the nation and deliver the aspirations of the people of Uganda, as articulated in Uganda Vision 2040. NDPIII (2020/21 – 2024/25) aims to build on the progress made, learn lessons from the planning and implementation experiences of NDPI and NDPII, and also seek to surmount some of the challenges encountered. At the end of its implementation, the country will be halfway through Vision 2040 30-year's timeframe. Consequently, this Plan has been drafted with this context in mind.
2. **The goal of the Plan is to increase household incomes and improve the quality of life of Ugandans**. This is expected to be achieved through resource-led industrialization. Successful resource-led sustainable industrialization will enable value addition in key growth opportunities (agriculture, tourism and minerals), trigger structural change and eventual movement of labour from low-paid agriculture to relatively better paid industrial employment. This transition should stimulate increased incomes and demand for agricultural output, quality education and health services and hence improvement in the quality of life of Ugandans.
3. **The focus on industrialization is meant to consolidate the achievements so far registered and drive take-off.** It provides unmatched potential for sustained accelerated growth by adding value to abundant resources in Agriculture, Minerals, Oil/Gas, Tourism and youthful labour force. This will further strengthen the national forward and backward linkages to stimulate production and productivity growth hence promoting gainful employment and wealth creation.
4. **The NDPIII industrialization strategy will pursue a two-pronged approach to expand markets for increased demand of locally produced goods**. First, Government will pursue an export-oriented strategy by increasing the value and share of manufactured goods in total exports in order to address the balance of payment deficit. Second, government will promote an expansion and diversification of local manufacturing activity, through both strategic public and private sector investment in industry. This will also ensure that some of the currently imported goods are produced locally.
5. **To ensure that the resource-led sustainable industrialization process is both sustainable and beneficial to its citizens, government will work closely with the private sector in two critical areas**. These include, Private Sector Development and Human Capital Development that will be at the centre of the country's efforts to build an educated, skillful, and productive labor force to drive the industrialization process. Further, strategic investment will be undertaken in critical national infrastructure projects to lower production costs, enhance international competitiveness and facilitate the sustainable exploitation of development opportunities.

1.2 Achievements, Challenges and Lessons learnt from NDPI and NDPII

6. NDPIII aims to build on the progress made, learn lessons from the planning and implementation experiences of NDPI and NDPII, and also seek to surmount some of the challenges encountered. Towards this, the final evaluation of NDPI, the mid-term review of NDPII, as well as a synthesis of other diagnostic studies provide useful insights that inform the NDPIII, as detailed below.

1.2.1 Summary of key achievements

7. Over the last decade, the country has registered some significant economy-wide achievements that have begun to lay the foundation for pursuing the industrialization and diversification agenda. Some of these key achievements are highlighted below.

(i) **Sustainable peace, security and macro-economic stability continued to prevail.** Sustained peace, security, and a stable macro-economic environment have provided the basic anchor for economic growth and development. During the period 2010 – 2019, Uganda has continued to enjoy peace and security in all regions of the country. Notably, the north and Karamoja regions have experienced sustained economic growth due to the restoration of peace and security. As a result, these two regions have registered a significant reduction in poverty levels over the ten-year period. Further, the economy has been characterized by a stable macroeconomic environment underpinned by low and stable inflation averaging 5 percent.

(ii) **The economy expanded more than 2 times from UGX 64 trillion in FY 2010/11 to UGX 128 trillion in FY2018/19 in nominal terms.** Over the NDPI and NDPII period, the economy has remained relatively resilient in spite of a challenging global economic environment, geopolitical challenges and the deepening impacts of climate change. The rebound in real GDP growth in FY2017/18 to 6.2% (after a sluggish growth of 3.6% in FY 2012/13) is evidence of a relatively robust economy. At present, the economy is projected to grow above 6.0 %. The relatively strong performance of the economy over the last ten years is a result of the aforementioned continued peace that the country has enjoyed, a stable domestic macro-economic environment and continued robust investment in the country’s infrastructure, particularly in roads and energy.

(iii) **GDP per capita has grown from USD 807 in FY2015/16 to USD 878 in FY 2018/19.** The size of the economy has consistently grown in excess of the population growth rate. This has resulted in an increase of the GDP per capita, in spite of the population growing from 34.9 million in 2015 to 40.3 million in June, 2019. However, the increase in the GDP per capita, remains below the NDPII target.

(iv) **Domestic revenue collection increased from UGX 5.02 Trillion in FY2010/11 to UGX 16.359 trillion in FY2018/19 in nominal terms.** The size of the domestic revenue is critical in determining the country’s ability to finance its development without relying excessively on development assistance. Domestic

Revenue collection by the Ugandan Revenue Authority (URA) between the period FY2010/11 to FY2016/17 has seen a steady increase. Gross revenue collections by URA grew from UGX 5.02 Trillion in FY2010/11 to UGX14.5 Trillion in FY2017/18. However, at 12.9% of Uganda's gross domestic product, the tax revenue collected remains too low to support Uganda's developmental requirements. The informal nature of much of the country's economy, tax avoidance and weak capacity in revenue collection deny Uganda of up to 40% of total revenue that may be collected. Reforms to reduce tax avoidance, expand the tax base by tapping into semi-formal economic activities, and improve the efficiency of the URA, remain tasks for the country and will be a major focus of NDPIII.

(v) **Total exports of goods and services grew from USD 4.9 billion in FY2013/14 to USD 5.4 billion in FY2017/18, nominal terms.** Growing the value of Uganda's exports is key to the country's efforts to maintain its debt sustainability and earn enough foreign capital to pay for the importation of required goods and services, particularly intermediate goods which will be critical for the early stages of the country's industrialization. Over the course of NDP I and NDP II period, Uganda's exports grew in value from USD 4.9 billion in FY2013/14 to USD 5.4 billion in FY2017/18. Tourism, in particular, remains one of the best performing sectors under service exports. Visitor arrivals increased from 945,899 in 2010 to 1,505,669 in 2018, which earned the country foreign exchange revenue amounting to USD 1.6 billion. The improved security situation in the country undoubtedly contributed to this healthy growth. The volume and value of commodity exports, however, remain comparatively low and stagnant. This growth is expected to be even stronger when the Africa Continental Free Trade Area (AfCFTA) is fully operationalized. In addition, the continuation of a policy of clustering through fully serviced and spatially concentrated industrial parks should be encouraged to deepen and broaden the knowledge base of companies, attract foreign investment and increase local employment while at the same time contributing to a diversification of the economy and the increased production of locally made products for the local market.

(vi) **Remittances increased from USD USD 819 million in FY2010/11 to over USD USD 1 billion in FY2017/18 in nominal terms.** Remittances from Ugandans abroad increased significantly from USD 819 million in FY2010/11 to USD 1.4 billion in FY17/18. The increased inflow of foreign exchange through remittances impacted positively on the economy through boosting aggregate demand and economic growth as well as the national savings pool available for investment. Consequently, gross domestic savings as a percentage of GDP have grown from 14.5% in FY 10/11 to 16.5 in FY17/18, while investment has grown from 21.1% to 28.5% of GDP over the same period.

(vii) **The total paved roads network as a percentage of total national roads more than doubled from 8% in 1986 to 21.1% (or 4,551 km) as of May 2018.** It is now possible to drive on a paved road from Arua to Kabale (an equivalent of 899 Kms) or from Busia to Arua in a single day. Further, the dual road carriage road network has increased from about 16 km to over 80km by December 2018 with the completion of the Kampala - Entebbe Express way. Though travel time has been reduced on national roads, increased cargo traffic on these roads has served to erode much of the positive gains. In this regard, total alignment of the Uganda National Physical Development Plan 2018-2040 with NDPIII is required.

(viii) **Electricity generation capacity increased from 601MW in 2010 to 1839MW by December 2019.** Investment in energy infrastructure has raised the country's generation capacity from 601MW in 2010 to 1839MW by the end of 2019 when Karuma hydro-electric power plant became operational. As a result, national access to electricity has increased from 11% in 2010 to 24% in FY 2018/19 and the cost of energy had reduced from 9 cents and 16 cents in FY2012/13 to 8 cents and 9.8 cents for extra-large and large industries by September 2018, respectively.

(ix) **The proportion of the labour force in paid employment increased from 17.3 % in 2011/12 to 19.5% in 2016/17.** The percentage of the working labour force increased from 79.1% to 81.1% over the same period. However, labour underutilization remains a challenge as a large population of Ugandans are underemployed i.e. being either highly skilled but working in low paying jobs or working part time.

(x) **Access to and utilization of education services has significantly increased.** Government continued to invest heavily in the education sector over the NDPI and NDPII period. Consequently, 92% of all parishes now have a government-aided primary school, while 71% of all sub-counties have a government aided secondary school. All major regions of the country also now have a public university. In addition, government has promoted participation of the private sector in the provision of education. As a result, primary school enrolment increased to 8,655,924 children and 1,457,277 for secondary education in FY2016/17. Enrolment at the tertiary level now stands at about 259,000 of which 162,299 are attending universities. The aggregate impact of all this is an increase in literacy rate (of persons aged 10 years and above) from 70% in FY2012/13 to 74% in 2016/17, and average years of schooling from 4.7 in FY2012/13 to 6.1 in FY2016/17.

Enrolment at Business, Technical and Vocational Training (BTVET) increase significantly. Skills development has also been facilitated by the refurbishment and establishment of technical and vocational institutions, especially at the district level. Currently, 42% of all districts have at least one government aided technical and vocational institution providing varying levels of skills development. Consequently, enrolment into BTVET increased from 25,262 to 129,000 between 2008 and 2017. Progress has also been registered towards the establishment of four centres of excellence at UTC Elgon for civil works and building technology; UTC Lira for highways construction and drainage, bridges and road construction; UTC Bushenyi for food manufacturing and food processing; and Bukalasa Agricultural College for crop and animal husbandry. More investment and closer alignment of the training provided with the principles of NDPIII will be required.

(xi) **Access to and utilization of health services has significantly increased.** By 2018, 75 percent of the population lived within a five-kilometer radius of a health facility. The health infrastructure network has improved in the country and currently consists of 2 national referral hospitals, 19 regional referral hospitals, 147 district hospitals, 193 HC4s (medical officers present); 1250 HC3s (clinical officers present), and 3610 HC2s (enrolled comprehensive nurses present). Significant progress has also been made in the provision of specialized medical care in cardiology and gynaecology. A modern state of the art women's hospital with a capacity of 320 beds was opened in Mulago in 2018, and the heart and cancer institutes of Mulago hospital have also been expanded and improved. This has increased access and utilization of health services. In-patient malaria deaths have reduced from 20 per 100,000 in 2016/2017 to 9.38 per 100,000 in 2017/2018 largely due to the effective distribution of insecticide treated nets (ITNS). In addition, between FY2012/13 and FY2016/17, infant mortality per 1,000 live births has gone down from 54 to 43 deaths of children, maternal mortality decreased from 438 to 336 deaths per 100,000 live births, and stunting has reduced from 33% to 29%, respectively. The aggregate impact of all this has been the increase in life expectancy by 9 years from 54.5 in 2012 to 63.3 years in 2017.

1.2.2 Challenges

8. There are areas where the country needs to do more. These include:

(i) **A large proportion of households (68.9 percent) is still stuck in the subsistence economy.** This segment of the population consists of largely small holder farmers, (living on fragmented pieces of land) that rely on peasant farming for home consumption and hardly realize any surplus for the market. Improving the incomes of this segment of the population will be central in the next NDPIII through increasing their land productivity and value addition to their products.

(ii) **Youth bulge (78% of the population are of age 30 years and below, representing 31.2 million people) creates both an opportunity and a challenge.** It creates an opportunity because of the potential demographic dividend from cheap labour and future demand. However, if the youth bulge is not well planned for, it creates a challenge and potentially missing the demographic dividend. This problem is compounded by a mismatch between skills required for labour markets and knowledge produced by training institutions. Equally the limitations of investment capital make it difficult for the youth to tap into the available opportunities. This creates the urgent need for skilled, technical and hands-on manpower personnel for the economy. Hence unless concerted effort is made to exploit the potential demographic dividends arising from youthful population, the unemployment problem will continue to increase.

(iii) **High Cost of electricity**. Progress has been made in the reduction of the cost of electricity over the last 4 years from 9 cents to 8 cents and from 16 cents to 9.8 cents for extra-large and large industrial consumers respectively. However, it is still higher than the target of 5 cents per unit and the cost is a further burden on both investors and private consumers. The cost is even higher for medium industrial consumers at 15.6 cents for a unit and for commercial consumers (cottage industries) at 17.5 cents per unit. This renders most such industries uncompetitive which is deeply problematic as small-scale cottage industries are the engines of growth and job creation in most economies in Africa and generate quicker returns to local communities.

(iv) **Persistent vulnerabilities and wide-regional disparities in attaining required poverty reduction targets**. The percentage of people living below the poverty line (1.00 USD USD per day) was 21.4% in FY2017/18 compared to the NDPII target of 14.2%. Moreover, there are wide regional disparities with Bukedi (47%), Busoga (42%), Bugisu (40.7%) and Teso (40.5%) experiencing reversals compared to the previous poverty levels. Households in these districts depend on crop agriculture as their biggest source of income and this highlights the urgent need for an industrialization strategy to add value to agricultural produce. At the same time, the mitigation of natural disasters due to climate change and the negative effect that this is having on poverty reduction strategies needs to be integrated into future planning.

(v) **Limited access to and high cost of capital.** The credit available to the private sector is characterized by high interest rates, high collateral requirements and short-term in nature. The main source of development finance for businesses is short-term credit mainly from commercial banks where lending rates average 20%. Furthermore, 20% of the adult population in 2018 access financial services informally, while 22% have no access at all. Currently, bank accounts per 1000 adults in Uganda stand at about 206. Improvements in affordable long and short-term credit are required.

(vi) **Low capacity in public service and prevalence of corruption.** The civil service is in general weak and not adequately equipped to drive development. For instance, the implementation of almost 50% of all NDP II core projects is unlikely to start before expiry of NDP II. This is due to a lack of capacity, a lack of will and diverse pressures placed on civil servants from other sources that all combine to frustrate the successful implementation of policy. This is compounded by prevalence of corruption that has increased the cost of doing business for both the public and the private sector. Addressing this will be key to transforming articulated goals into reality.

(vii) **Severe reduction in the forest cover as well as wetland degradation and encroachment.** The forest cover in Uganda has reduced from 20% in 1986/87 to 9.5% in FY17/18 while wetland cover was reduced from 13% to 10.9% over the same period. The implication is increased vulnerabilities and disparities in incomes as well as loss of livelihood to the population and reduction in GDP growth rates. The continued environmental degradation, loss of forest cover and wetlands is impacting negatively on Uganda's tourism, agriculture, among others; therefore, needs to be addressed urgently.

(viii) **Dwindling local revenues insufficient to fund local service delivery.** Local governments remain heavily reliant on the central government for funding. Despite an increase in the percentage share of the local government grants transferred from the National Budget from 12 per cent in FY 2017/18 to 14.8% in FY 2018/19, most subnational expenditures (around 60 per cent) are dedicated to recurrent expenditures, in particular the payment of wages and salaries. This leaves very little (around 30 per cent) for actual service delivery. This is in spite of the fact that the population and the amount of local governments have increased. To increase service delivery at the local level, this challenge needs to be addressed.

(ix) **Uncoordinated approaches to implementation planning.** Government institutions continue to operate in "silos" with little integrated thought as to how to deliver on pledges and policies of government. All aspects of the NDPs require national buy-in and this starts with government. It is unsustainable and counter-productive to have the planning of major development projects undermined by a lack of coordination. Development projects are not isolated stand-alone items but directly impact on a wide variety of competencies covered by numerous government departments and institutions. This is true, both within and between sectors. Fully functional sector working groups exist only in a few sectors such as health; the justice, law and order sector; education and energy. Coordination across governments needs to be revisited in order to strengthen results-based planning and implementation.

(x) **The Quality of education remains low characterized by the low levels of literacy and numeracy, coupled with the high rate of school dropout.** Although primary school dropout rate has reduced from 50.9 percent to 38.5 percent over the last 14 years, it still remains a problem. This has led to an increase in the number of unskilled Ugandans joining the labour market and there is no deliberate effort yet by government to trace and retrain the school drop-outs with the necessary skills as per the labour market demand.

(xi) **The functionality of health facilities is low as non-communicable diseases (NCDs) are rising.** Uganda has attained nearly 100 percent geographical coverage of the whole population living within a 5km access of any facility providing basic health services for communicable diseases. However, actual functional coverage is much lower. This is due to limited coverage of comprehensive services, especially for specialty and diagnostic services. In addition, the critical gap in human resources for health in the country has reduced the functionality of many health facilities at all levels, especially in the rural areas. Further, the burden of NCDs is rapidly increasing with high mortality incidences outstripping existing health investments.

(xii) **Slow Project Implementation.** The implementation of core projects under the former NDPs has been slow, adversely affecting growth and job creation and undermining Vision 2040. Out of the 42 NDP II core projects, only 17 are on schedule, while 5 are under implementation but behind schedule. The rest are either only at the feasibility stage or have not yet started (see Annex 1).

1.2.3 Lessons learnt

9. Based on the review of the country's performance during the past eight years of implementing the NDPs, a number of major lessons have been considered while developing NDPIII. These are:

(i) **The need to increase investment in the productive sectors of the economy in order to optimize use of the increased infrastructure capacity.** Heavy investment in economic and social service infrastructure has narrowed the huge deficits. However, there has been inadequate corresponding investment in the productive sectors of the economy resulting in low returns on infrastructure investments thus limiting optimal economic growth rates. Going forward, NDP III needs to re-prioritize investment in the productive sectors (particularly in agriculture, manufacturing and tourism) in order to optimize use of the infrastructure capacity that has been put in place in form of increased electricity generation capacity, all weather roads and telecommunications services. Additional investment in infrastructure should only be targeted to address specific gaps constraining rapid growth in the productive sectors.

(ii) **The need to balance social and infrastructure spending to achieve better development results**. Investment in productive sectors without corresponding investments in improving the quality of human capital would increase Uganda's GDP from the 2017/18 level of USD110 billion to USD 495 billion and GDP per capita of USD 825 in 2018 to USD 6,735 in 2040 respectively. However, Uganda's economy would grow faster if we concurrently prioritize and implement job-oriented economic reforms and investments in human capital, and attain the Vision 2040 target of being a higher middle-income country in 2040 with a GDP per capita of USD 9,523.

(iii) **The need to revisit the development approach particularly the role of government in the development process.** Under NDPI and NDPII, government relied on market forces and the power of competition to bring down interest rates, the cost of electricity, the cost of ICT services, and direct investment in strategic areas of the economy. However, interest rates remain above 18% even when the Central Bank Rate has been reduced to 10%. The cost of electricity remains above the targeted 5 cents per unit for all consumer categories. Access to the internet (specifically broadband) remains low due to limited coverage and the cost of accessing it remains high. There is considerable under-investment in manufacturing industry, the ultimate driver of the socio-economic transformation.

Therefore, it is unlikely that left on its own, the market alone will drive Uganda's Development. A quasi market approach is required. In which a strategic public sector crowds in private investments. Towards this, government needs to increase efficient and planned participation in the economy in order to direct development. Industrial policy and the construction of a developmental state needs to be central to NDPIII. In doing so, Uganda government needs to actively implement strategies aimed at unlocking investment in strategic areas of economy such as agro-industrialization, manufacturing, minerals, oil and gas as well as tourism. All of these have huge potential, but none of these sectors can be left to the market forces alone.

(iv) **The need to strengthen Public Investment Management.** There is need to strengthen the alignment between the planning, budgeting and budget implementation processes as well as coordination with development partners and civil society. Under NDPI and NDPII, alignment between the NDPs, the national budgets and ministerial annual work-plans remained weak and this contributed to under-performance in some areas (as identified above). While alignment at the macro (or strategic) level has been arguably better, it is much weaker at the sector and line ministries, departments and agencies and/or operational levels. Consequently, many priorities in the NDPs have not been implemented and the potential has not been reached. Under, NDPIII, the government at all levels needs to design and implement a mechanism that will require much stronger alignment and integration between the planning, budgeting and budget implementation processes in order to increase the rate of realisation of national priorities and maximise synergies. This mechanism should also bring on board development partners and civil society to ensure all stakeholders are implementing the same set of priorities.

In addition, there is need to strengthen project preparation and appraisal to improve the implementation of projects. The NDPIII Project Investment Plan (PIP) will be improved to categorize all investable ideas into bankable projects and match them to innovative financing available. Projects will be grouped as core (developed up to pre-feasibility stage), priority and others to guide sectors on project selection.

(v) **The need to re-focus efforts on the production of a minimum threshold of relevant and appropriately skilled labour for the economy.** A country that does not invest in its people only mortgages its future. The implementation of

NDPI and NDPII came with a number of huge investments that required skill sets that the formal and informal education systems are not producing, particularly in the electric power generation dams, transport infrastructure and the oil/gas industry. These skill gaps will be further amplified during the NDPIII period as the scale of investment in these new sectors of the economy increases. Drastic action is thus required to address the serious skills shortage in Uganda. Going forward, NDPIII should thus prioritize interventions aimed at forecasting human resource requirements for the economy and then re-engineering the formal and informal education systems to respond in a timely manner.

(vi) **The need to bring government closer to the people in order to effectively address their development needs.** The implementation of NDPI and NDPII was pegged at the MDA and district level and that is understandable as that is where service delivery occurs. At present, the sub-counties and parishes particularly, are largely dysfunctional with regard to the provision of production related services such as agricultural extension services, commodity bulking, cooperative development and community mobilization. As a result, rural poverty has become further entrenched as a disproportionate percentage of the population remains trapped in subsistence agriculture. In addition, regional income disparities are widening as the regions dependent on crop farming experience stagnation or experience a continuing reduction in household incomes. Starting with NDPIII and going forward, the government needs to strengthen the subcounty as the lowest planning unit and the parish as the administrative and operational hub for all government services at the local level.

In doing so, the recommendations are that government builds;

a) mechanisms into the NDPs to address/reduce regional inequalities. Regions have different development potentials and face different constraints that require different interventions. Spatial planning using the Area Based Commodity Planning approach should be used as a major driver for local economic development to address regional disparities. The localization of policy in this sense can be a useful mechanism to deliver.

b) a robust NDP monitoring and evaluation system that integrates sector and local government management information systems.

(vii) **Identify and exploit alternative revenue sources to complement domestic revenue collection.** For government to be able to finance this plan, there is need to explore other forms of financing, in addition to enhancing domestic revenue mobilization. In this regard, the private sector, the diaspora community and development partners all need to be involved in the drafting and implementation process of this plan to ensure all stakeholders are using their resources to implement the same set of development priorities. Using this approach, it should be possible to tap into resources held by pension sector, diaspora community, the private sector and development partners.

(viii) **The need to break down the silo approach to planning, budgeting and implementation.** Planning and implementation of government programs remains largely confined within sectors and MDAs, along sectoral/MDA mandates. As a result, the synergies and complementarities that could be derived from a more holistic approach are often forfeited. Under NDPIII, the program-based approach to planning has been adopted. A total of 18 programs have been designed to address the identified development challenges inhibiting growth. These programs address the different aspects of an identified development challenge along the value chain in a systematic and comprehensive manner.

(ix) **The requirement to place more effort on resolving the issue of land compensation.** Access to land for infrastructure development as well as other development activities such as manufacturing and agriculture have become prohibitive. In fact, costs associated with compensation of Project Affected Persons (PAP) have become more expensive than the actual cost of the projects themselves. This issue needs to be addressed in order to fast-track implementation of development activities. The possibility of corruption in increasing the costs of compensation cannot be discounted.

(x) **The need to incorporate risk planning and mitigation into the plans and budgets to cater for unforeseeable challenges.** NDPI and NDPII did not sufficiently address risk management. Hence, there were no mitigation measures inbuilt in the implementation of these two previous plans. Consequently, NDPIII has incorporated a Risk Management Plan that spells out the key risks that may materialize during implementation and the mitigation measures that will be undertaken in such an event.

(xi) **The requirement to prioritize efforts aimed at identifying market opportunities in global and regional protocol to which Uganda is signatory.** The country's trade balance remains negative and export receipts are far below their potential. However, there are significant market opportunities that are opening up through the various protocols to which Uganda is signatory or involved, such as the East African Community, the Africa Continental Free Trade Area (AfCFTA), FOCAC (Forum for China Africa Cooperation), the European Union Everything But Arms (EBA), and others. Until now, the country has not planned sufficiently to take advantage of these new trading arrangements and opportunities. The private sector remains inadequately informed about these arrangements and the opportunities they present. NDPIII aims to mainstreamed interventions aimed at increasing exports by exploiting new emerging market opportunities.

1.3 How NDPIII is different from NDPI and NDPII

10. **NDPIII builds on previous NDPs but to fast track realization of results, a programmatic approach to planning is adopted (discussed below)**. The priorities will remain: agriculture, tourism, minerals and petroleum development, manufacturing,

supported by human capital and infrastructure development. Nevertheless, the approach to delivery will change in NDPIII to focus on achievement of results through a programmatic approach to planning and budgeting. NDPIII will therefore focus on resource-led industrialization through Value addition in agriculture, minerals, petroleum and manufacturing.

11. **The increased role of the state**. Whereas in the previous NDPs the private sector was assumed to drive growth, under NDPIII the role of the state in guiding and facilitating development will be strengthened in order to fully exploit the quasi market and PPP approaches in development. In this case, Government will invest either wholly or jointly with the private sector and the communities in strategic enterprises to crowd in the private sector in order to spur growth in a balanced manner across the country.

12. **Increased investment in fundamentals (Human Capital Development, Transport, Energy and ICT) that will bridge the gaps between what is needed to exploit our development opportunities and what is currently available**. For instance, with regard to human capital, there are significant skill gaps in internationally certified welding, scaffolding, machine operators, assemblers and drivers. So, investment in skills development will be focussed on production of these in sufficiently large numbers to work in the expanding mineral and petroleum development sectors. With regard to Transport, focus will be on improving transport multi-modal interconnectivity in order to reduce the transportation costs of goods within the country and in the region, reduce travel times especially for the transportation of perishable goods, and improve efficiencies in connecting the different modes of transport. In Energy, focus will be on evacuation and transmission of the electricity being generated to areas where it can be used like in industrial parks and zones.

13. **Introduction of a program approach to planning complimented by area-based commodity and spatial planning to**:

    (i) Focus implementation on delivery of common results, including SDGs, East African Community targets and Africa Agenda 2063 targets. Achievement of results specified in these development frameworks does not neatly fall within any particular sector.

    (ii) Strengthen alignment and eliminate the ‘silo’ approach to service delivery and enhance synergies across sectors and other actors

    (iii) Provide a framework for the already existing programme-based budgeting

    (iv) Address area specific priorities and inequities in growth and household incomes

14. **Clear and interlinked results and targets at the Goal, Objective, Program and Project level that are directly linked to budget formulation and budget implementation processes**. NDPIII will be based on national programs and projects with clear results and targets. These programs and targets will be the basis for the formulation of the national budget in order to strengthen the link between planning, budgeting and budget implementation as well as between NDP targeted results and national budget expenditure.

1.4 Approach and formulation process of the NDPIII

15. **The production of NDPIII is in line with the planning process outlined in the Comprehensive National Development Planning Framework (CNDPF, 2007) and the National Development Planning Regulations (2018)**. A mix of top-down and bottom-up approach is used which aims to ensure that strategic guidance is provided at the national level and that the articulation of the identified development priorities is done at sectoral and local government levels through the development of national development programs and projects. The strategic direction of NDPIII was informed by an extensive consultation processes based on background analytical work on past industrialization efforts and strategies, trends in key growth areas (agriculture, tourism, minerals, oil and gas), export and import performances, and sector priority papers, among others.

16. **Contributions and inputs were also sought from targeted stakeholders, for example, high level political and technical leaders, industrial and business owners, as well as regulation and implementation authorities**. Consultations with sector, regional, district, and community level stakeholders were also conducted. Other stakeholders including the private sector, civil society, faith-based organizations, NGOs, academia and development partners also played a part in informing the process.

1.5 Structure of the Plan

17. This Plan is organized into four parts, namely:

    (i) **Part One: Background, performance under previous plans and development context**. This has Chapter 1 which presents the background to NDPIII, including review of performance under NDPI and NDPII; Chapter 2 which provides the global and regional development context within which NDPIII will be implemented; and Chapter 3 that discusses the national development outlook.

    (ii) **Part Two: Strategic direction.** This section comprises of Chapter 4 of NDPIII which discusses the strategic direction for the plan outlining the goal, theme, objectives, key results and strategies, the theory of change and flagship programmes.

    (iii) **Part Three: Development programmes and implementation strategy.** Chapters 5 to 22 present the detailed articulation of the National Development Programmes.

    (iv) **Part Four: Costing and Financing, Risk Management, Monitoring and Evaluation**. This is the final section of NDPIII and consists of Costing and financing, Risk Management, as well as Monitoring and Evaluation Strategy that will be used for assessing the success in implementing the Plan and for realising our country's developmental aspirations.

CHAPTER 2: REGIONAL AND GLOBAL DEVELOPMENT CONTEXT

2.1 Introduction

18. The global and regional perspectives provide both opportunities and threats that inform NDPIII strategic focus.

19. **Global growth remains subdued. Global growth is forecast at 3.2 percent in 2019, picking up to 3.5 percent in 2020**. This projected growth rate is expected to hover around the same level or reduce slightly over the NDPIII period. Asia will likely continue to generate much of the global growth; growth in the region will probably remain above 5%. The dispute between China and the United States is expected to continue to affect the continent. The African Development Bank (AfDB) has warned that the dispute could cause a 2.5 per cent reduction in GDP in resource-intensive African countries and a 1.9 per cent reduction for oil exporters by 2021. Meanwhile, apart from the oil-dependent nations (such as Nigeria and Angola), growth in Africa is projected to remain strong, with Uganda among the few countries in the greater East African region anticipated to be among the fastest growing economies in the world by 2025.

20. **The global population is expected to increase from an estimated 7.7 billion as of February 2019 to 8.1 billion by 2025 with just nine countries contributing to half of that increase**. These nine countries include five from Africa and three from Asia. Roughly the same countries that will drive global economic growth over the NDPIII period will be the same countries that will experience the fastest population growth rates signalling a shift in demand patterns and a significant rise in consumption of food and food products, the extractives and manufactured goods in those. These developments signal an opportunity for Uganda to benefit from expanded markets for her food and food products, extractives and manufactured goods if policies are prudently put in place and implemented.

21. **Global trade will moderate due to trade tensions among a number of countries**. However, the rise in global population numbers coupled with an emerging and expanding middle class in Africa and Asia, respectively, will mitigate the reduction in trade in the developing world. Due to an increase in and the emergence of manufacturing capacity in Asia and Africa, consumption and trade patterns will increasingly be determined by distances to markets, competitive advantage and possibly, even protection.

22. **As a landlocked country, Uganda will need to work closely with its neighbours to increase access to regional and international markets and take advantage of existing opportunities**. Uganda is signatory to regional and international developmental agendas that present opportunities for development cooperation with other state and non-state organizations as well as commitments to increase the wellbeing and quality of life of its constituents. They present a platform for mobilizing (financial and technological) resources to fund joint programmes and projects that seek to improve economic infrastructure for increased connectivity and competitiveness of the region with the rest of the world. These include the East African Vision 2050, the Africa Agenda 2063 and the United Nations Sustainable Development Goals (2030 Agenda). These regional and international

development agendas require that the country achieve certain set development targets within specified timeframes.

23. **Emerging regional and global trends will provide both opportunities as well as challenges that should be harnessed and mitigated in NDPIII**. Economic growth, demographics, trade and consumption patterns as well as changing dynamics of global value chains present opportunities as well as potential risks for the country's social economic transformation agenda. Opportunities for Uganda to grow its regional and global market presence abound in agro-industrialization, software development and programming, production of common household user goods through light manufacturing, and delivery of specialised health services and education. However, threats in climate change, cyber security, regional conflicts and their impacts on refugee influx must be planned for in NDPIII.

2.2 Key Development Opportunities

2.2.1 Increased demand for agricultural exports

24. **The demand for agricultural exports is projected to increase due to the increasing global population, level of urbanization and rising incomes hence better prospects for food and food products and Agro-industrialization.** However, in spite of its global comparative advantage in agriculture, Africa remains a net importer of food and processed agricultural products worth USD35 billion annually and this figure is expected to grow up to USD110 billion annually by year 2025. Nigeria, South Africa and Angola are the top importers and the three of them account for almost half of all the imports into the continent. Also, as the environmental footprint due to increased agricultural production increases in Southeast Asia and Latin America, production and export of processed agricultural commodities has the potential to be a major growth driver for many African Countries, including Uganda increasing the export of processed agricultural commodities to the rest of Africa, Europe. Uganda has significant potential to supply a significant portion of this market. About 80 percent of Uganda's land is arable, but currently only 35 percent is being cultivated. Agriculture accounted for about 21.5 percent of GDP in 2017 and 46 percent of export earnings. Much of the export earnings from Agriculture is from export of unprocessed raw materials. There is, thus, a room to increase export earnings. Given that nearly three quarters of our population are employed in agriculture, the net benefit to the country would be significant.

2.2.2 Increased competitiveness in Manufacturing

25. **Africa has an opportunity to increase value added in manufacturing.** Africa accounts for only 1.9% of global value added in manufacturing and this has not radically changed for decades in spite of the rising levels of urbanization across the continent. Africa's industrial value added contracted from USD 702 billion in 2012 to USD 603 billion in 2018 with countries such as Nigeria, South Africa and Algeria leading the decline (AfDB). For Uganda, most of our trade deficit is made up of imports of light manufactured goods from China and India that, until now, have produced these commodities more competitively due to low labour costs and higher labour productivity. Huge investments by these Asian giants

in the development of physical capital, technology and human capital significantly lowered their costs of production and rendered the emerging industrial hubs in Africa uncompetitive.

26. **China's rising labour costs is an opportunity that needs tapping**. The reserve pool of labour that enabled transnational corporations to generate mega-profits in the 1990s caused rapid economic growth over the past decade that has led to a rapid increase in wages. The median monthly wage in Shanghai is now USD1,135, which is close to that of Poland (USD1,569) and virtually the same as Hungary's (USD1,139). Consequently, China is gradually shifting from low technology, labour intensive production to the production of high-end technology goods. This is an opportunity for Uganda. In Uganda, as in most of Africa, our major competitive advantage is the low cost of labour. In addition, Africa has embarked on regional and continent-wide projects in transportation and energy in order to increase connectivity and lower the costs of production. With its rich natural resource base, access to clean and relatively cheap energy sources (hydro-electricity and solar energy), Uganda has a good opportunity to implement a competitive resource-led industrialization strategy if it can make the requisite investments in human capital development to increase labour productivity. In addition, Uganda must negotiate bi-lateral arrangements with China to facilitate the transfer of technology for labour intensive manufacturing to satisfy domestic and regional markets.

2.2.3 Increased Regional and International Transport Connectivity to facilitate trade

27. **Uganda must plan to take full advantage of this increased transport interconnectivity to increase exports to the Africa region as well as Asia and the Middle East**. Uganda's transport interconnectivity to the region (East and Central Africa) through the Northern and Central Corridor transport projects and Asia through the Maritime Silk Road is gradually increasing. Through the Northern Corridor Transport project, the road connections to Juba and the Democratic Republic of Congo as well as the Maritime silk Road will open up access to the wider East and Central African Region as well as Asia and the Middle East. The East African region's total road network in 2008 was 183,178 km, of which only 19 per cent was paved. Additionally, only 70 per cent of its paved roads are classified as being in good condition. By 2030, the paved road network will be 35,250km, and is expected to reach 65,700 Km by 2050. The EAC has prioritized ten international road transport corridors (the East African Road Network) totalling to fifteen thousand eight hundred kilometres (15,800 km). China has introduced the Maritime Silk Road linking China across the Indian Ocean to East Africa and up through the Suez Canal into the Mediterranean and European markets.

2.2.4 Strong Growth Potential in Tourism

28. **With the rising affluence in the emerging economies and the Middle East as well as the rebound in the global economy, tourism remains an important and still growing opportunity for Uganda**. The World Tourism Organization notes that the volume of travellers and the revenue the sector generates continues to grow. Global tourism numbers grew at an average of 6% during the first half of 2018. Defying expectations, the Middle

East is the fastest-growing travel region in the world, with the Palestinian territories leading the pack at 57.8% growth in international visitors. This is due to aggressive marketing, religious reasons, but also cultural reasons due to the number of visitors that trace their ancestry to the region. World Tourism Organization data shows an increasing diversification of tourist destinations as well as source markets. While the United States and Western Europe remain important source markets, China has become the biggest source market for tourists, sending about 120 million of them abroad annually.

29. **The year 2018 was Uganda's best year in terms of tourist arrivals and revenues. However, these numbers could grow even faster if the challenges of poor tourism infrastructure, poor airline connections and low brand recognition are addressed**. For example, while Mauritius, Kenya and Uganda reported roughly the same numbers of international tourist arrivals in 2017 (1.34 million for Mauritius, 1.36 million for Kenya and 1.4 million for Uganda; tourism revenues were much lower for Uganda. Uganda reported tourism revenues of USD 940 million (the Bank of Uganda claims this is USD 1.3 billion); Kenya received USD 1.56 billion and Mauritius USD 2 billion. These numbers show that there is a massive potential for Uganda to increase tourism revenue by increasing tourist per capita expenditure as well as total tourist arrivals. For example, Uganda is about 73% of Malaysia's geographical size but receives an equivalence of only 5% of its tourism revenue. Therefore, Uganda needs to plan how to proactively increase its share of the global tourism market.

2.2.5 Continued demand for natural resources

30. **Good economic growth prospects in South East Asia and one third of the countries in sub-Saharan Africa create a strong appetite for natural resources**. Even though growth is expected to slow down a little in the rest of Africa, it is expected to remain positive. As a result, manufacturing and construction activity is expected to continue growing. It is therefore expected that demand for iron and steel, cement, plastic plumbing materials and other Petro-chemical construction and household consumables is expected to continue. There will also be an increase in demand for phosphates and its derivatives as these are used in agriculture, construction and the foods and beverages industry. Further, as the world works towards commitments to keep the global average temperature rise at or below 2°C, minerals and metals that will likely increase in demand include: aluminium, copper, lead, lithium, manganese, nickel, silver, steel, and zinc. Uganda has significant deposits of many of these minerals in commercially recoverable quantities in the areas where exploration has been done. In addition to the discovery of oil deposits, the country has discovered significant deposits of iron ore, phosphates, copper, marble/limestone, and dimension stones among others. There is also great promise that there are significant mineral deposits in the areas that have not been fully explored yet. Given trends in demand for these minerals, the country has the opportunity of profitably exploiting these minerals. The projections for the price of crude oil to hover around its current price of about USD 60 over the NDP III period indicates that commercial production of oil remains viable even though the window for profitable exploitation of oil is narrowing as concerns over climate change increase.

2.2.6 Opportunities for Leveraging advances in ICT for Development

31. **With over two billion Internet users, six billion mobile phone subscriptions, and numerous other devices are intercommunicating in a vast real-time multi-network, supporting every facet of human activity, ICT is an opportunity**. Technology is now being used to form new communities and platforms to address problems and exploit opportunities without conventional/physical management. It is now possible to deliver quality services using technology at a fraction of the cost of delivering those services using conventional means. Through use of tele-education, tele-medicine, and e-government, hard to reach communities can now be effectively reached and served in a cost-efficient manner. Uganda has been one of pioneers of mobile payments on the continent and much e-commerce transactions are actually m-commerce. Given the immense advantages of connecting the population to the internet and to mobile networks, both universal broadband access and complete mobile coverage nationally should become a national priority in terms of infrastructure. There is also a huge potential for Ugandan companies to develop their own digital content and online services and this needs to be supported. Internet connectivity should also make it easier to draw diaspora professionals and other hard-to-get technical professionals into the country's development discourse as well as business outsourcing opportunities accessible.

2.2.7 New Innovative Development Financing Options

32. **Given the limited fiscal space the country needs to identify and utilize new innovative financing options to exploit identified opportunities**. These opportunities are evident in increasing the supply and access to electricity, expanding coverage of broadband internet and the other economic infrastructure needed, However, access to concessionary funding is limited, and unlimited use of commercial loans is likely to raise issues of debt stress. Given this reality, there are two possibilities that raise new opportunities for development financing. First, is in redirecting remittances from away from consumption to development, for instance through use of diaspora bonds. Remittances from Ugandans working abroad have increased significantly from USD 819 million in FY2010/11 to USD 1.4 billion in FY17/18. Second, is in the use of blended finance to leverage development aid and philanthropy to attract private sector funding and/or make effective use of commercial loans. Another option could also be in the form of negotiating multi-country funding of development projects. For instance, Uganda, South Sudan, DRC and Tanzania could implement a jointly funded unified power grid to serve South Sudan, Eastern DRC and northern Tanzania, significantly reducing the amount of capital that each country needs to mobilize.

2.3 Threats

2.3.1 Climate Change and its Impacts on Agriculture and Economic Growth

33. **Conflict and climate change are major contributing factors leading to growing numbers of people facing hunger and forced displacement, as well as curtailing progress towards most development targets** (SDG Report, 2018). For the first time in more than a decade, there were approximately 38 million more hungry people in the world,

rising from 777 million in 2015 to 815 million in 2016. The year 2017 was one of the three warmest on record and was 1.1^{o} C above the pre-industrial period. The five-year average global temperature from 2013 to 2017 was also the highest on record. The world continues to experience rising sea levels, extreme weather conditions and increasing concentrations of greenhouse gases. In Uganda, droughts are now more frequent and more severe leading to frequent cases of crop failure. The country has experienced frequent cases of flooding and landslides. For the first time in more than a decade, there was a reversal in the poverty levels in 2017 largely due to droughts and crop failures. The regions and economic groups that have experienced poverty reversals were those that largely depended on crop farming as their source of livelihood. The effects of climate change are further exacerbated by deforestation, land degradation and wetland degradation and encroachment. However, Uganda, like much of the world, is victim to forces outside of its control. Our country's contribution to global warming and climate change is minimal but as a country, Uganda is forced to deal with the symptoms of processes caused outside of our borders. Uganda, however, does intend to fulfill its international obligations with regard to reduction of national emissions and adapt to the impacts of climate change by allocating the necessary resources to implement the partnership plan.

2.3.2 Regional Conflicts and the Refugee Challenge

34. **Uganda is currently the third biggest refugee hosting country worldwide and largest in Africa.** Uganda is currently hosting about 1.33 million refugees and needs an average of about USD 2 billion annually to cater for the needs of the refugees and the host populations amid dwindling global resources to support refugees. Whereas Uganda's policy towards refugees has been applauded globally, the country's resources could be overwhelmed by the high and increasing number of refugees. In the districts of West Nile, south west and northern Uganda as well as the slums of Kampala where many of these refugees are settling, their impact on the environment as well as demand for social services is substantial. Refugee populations in some districts is higher than the host population.

35. **Unresolved conflicts in the Great Lakes region are driving these refugee numbers.** Many of these conflicts have their roots in the exploitation of and access to natural resources, identity clashes and governance issues. Whereas these conflicts are initially intrastate, they have the potential to draw in the surrounding countries due to the transnational nature of some of these communities and the conflicts involved. Conflicts which may have begun over access to and/or exploitation of natural resources (land or minerals) can quickly expand into governance and identity conflicts. Uganda has and continues to be an active participant in the resolution of regional conflicts as regional peace and security is in the self-interest of the country. Moving forwards, Uganda needs to continue to participate in and intensify efforts to bring peace to the region. This must be done through cooperation with the international community as well as its regional neighbours. The repatriation of refugees to their home countries once peace has been realised needs to become an effective policy of government.

2.3.3 Cyber Security

36. **Cyberspace is now a medium for disinformation among competing commercial interests, ideological adversaries, governments, and extremists, and it is a battleground between cybercriminals and law enforcement**. Cyberattacks at the level of cyberwar have already occurred, and are occurring with increasing frequency and effect. Three major approaches to cyberattacks are: breaking into a system to steal information from computer systems or networks; directly affecting the functionality of computers or related equipment through the use of worms, viruses, logic bombs and/or other malware; and the denial of service whereby a system is flooded with messages that overwhelms them and renders them non-functional. Targets may include businesses, military command and control systems, transportation systems, power grids, manufacturing facilities and communication systems. Uganda needs to significantly invest in building the competencies of communication structures to be able to anticipate or avert potential attempts at disrupting government and/or commercial operations in its territory as well as stop or disrupt attempts at spreading misinformation to foment unrest. Some of the steps government can take in this regard include: enacting limited government regulation of cyberspace, increase resources for cyber-defence (both government and private) and, significantly, isolate critical infrastructure (e.g. power grids) from the internet.

2.3.4 Brain Drain stymying Innovation, Research and Entrepreneurship capacity

37. The hitherto weak ability of the economy to create sufficient numbers of jobs is driving the country's brain drain to higher-income countries with labour shortages. Often, highly trained professionals are emigrating to countries where their skills attract higher pay. Ugandan youths trained up to degree/diploma level are exiting our country to take up employment requiring little or no skills. These The emigrants have been trained at great economic expense to the country and the remittances do not fully compensate for the expense of their training. Besides, the country's capacity for research, innovation, and entrepreneurship as well as skills to drive and sustain social-economic transformation is constantly being compromised by emigration. Without opportunities at home, our homegrown talent will continue to exit in increasingly large numbers. This is precisely the talent needed to help create opportunities and drive the nation's goals with regard to Vision 2040.

38. Uganda urgently needs to devise mechanisms to stop and then reverse the brain drain, especially in Science, Technology, Engineering and Mathematics (STEM). It is unacceptable that the majority of our graduates either find no employment in the country, are under-employed or are forced to supplement their incomes outside the public system. A comprehensive review of public sector remuneration, especially for highly trained professionals like medical doctors, merit and competence-based recruitment structures into the public sector, particularly in the publicly owned enterprises in energy and oil are crucial. Uganda also needs to provide greater opportunities for short professional visits to scientists working abroad our professionals.

2.4 Regional and International Development Obligations

39. NDPIII is cognizant of Uganda's commitments in regional and international development obligations. Uganda is a signatory to the post-2015 Sustainable Development Goals (or 2030 Agenda) which consists of a set of 17 goals and attendant targets. The 2030 Agenda embodies the aspirations of a world that is more equal, more prosperous, more peaceful and more just. Uganda adopted and localised these goals and targets and mainstreamed them into NDPII. In the period since the drafting of the NDPII, the East African Community and the African Union also finalized the development of regional development plans, namely the EAC Vision 2050 and Africa Agenda 2063. These two, together with the 2030 Agenda, give the country three regional and international development frameworks to consider while developing its NDPs and moving towards Vision 2040. NDPIII integrates these development agendas in respective programmes as detailed in Chapters 5-20.

2.4.1 Emerging issues

40. The regional and global development environment remains favourable for fast-tracking growth. The country should therefore fully embrace the unfolding global opportunities as well as take cognizance of the development obligations. The major development opportunities include: strong regional and global demand for food and food products especially in Africa and Asia where export standards are much closer to ours, tourism and manufactured goods due to the expanding global middle class; new financing options for funding of development infrastructure to further improve competitiveness; consolidation of the African export market made possible with the ratification of the AFCTA; increased global reach and use of ICT which makes markets easier to reach and services cheaper to access as well as new possibilities for more structured technology transfer and adoption.

41. In order to take full advantage of these opportunities, the country needs to:

    (i) Prioritize the massive production of food and food products, iron and steel for the regional construction market as well as production of light manufactured goods on an industrial scale to reap from economies of scale;

    (ii) Focus on creating the conditions and facilities for massive expansion of manufacturing in themed production zones with low transport and energy costs. Identify and support specific manufacturing clusters strategically located for agricultural production combined with value addition to other raw materials;

    (iii) Articulate a transparent and development-oriented policy framework for the minerals sector, to retain a higher portion of natural resource rents and to utilize the proceeds towards achieving economic diversification and structural transformation;

    (iv) Negotiate and institute mechanisms for an organized transfer and adoption of low cost, labour intensive technology with China and India that are transiting from low technology/labour intensive manufacturing to high-tech;

(v) Increase investment in tourism infrastructure and launch a massive marketing campaign for the 'Pearl of Africa' brand to increase the share of the tourism market;

(vi) Make substantial investments in science, technology and innovation to take advantage of the growing sophistication of markets and global value chains;

(vii) Stem the 'brain drain' and institute mechanisms for initiating and scaling-up reversal of brain drain;

(viii) Invest significantly in an integrated and interoperable transport infrastructure to facilitate evacuation of goods from the production areas to collection and processing centers for export. The Northern Corridor transport infrastructure projects, road projects to the neighboring countries of DRC and South Sudan as well as the maritime silk road initiative would go a long way in furthering this initiative;

(ix) Support the private sector (particularly local SMEs) to develop capacity to drive the industrialization effort, increase exports, create jobs and increase local content;

(x) Restructure, recapacitate and empower an incentivized bureaucracy to play the role it should play in a 'development state' model;

(xi) Massive investment in the production of human capital with the appropriate skills and the right attitude to drive the industrialization effort. Implementation of the National Human Resource Plan developed as an attendant Plan to NDPIII would be a good start.

(xii) The country also ought to take measures to minimize and/or mitigate the risks that the country faces after opening up to the world, and these include cyber warfare, brain drain, climate change and a surge in refugee numbers due to regional conflicts.

CHAPTER 3: NATIONAL DEVELOPMENT OUTLOOK

3.1 Macroeconomic Strategy

42. **The overall goal of macroeconomic management is to accelerate and sustain inclusive economic growth, while maintaining macroeconomic stability and debt sustainability**. The macroeconomic strategy for the NDPIII therefore is to enhance the impact of public investment on growth through implementation of policies that foster efficiency in public investment, increase domestic revenue mobilization efforts and maintain price stability. In addition, Government will continue with measures to improve the external position with the rest of the world through promoting a competitive exchange rate and building up foreign reserves to cushion the country against external shocks.

43. The Macroeconomic objectives underpinning the strategy include;

(i) Poverty reduction from 21.4% to 15.5%;

(ii) Achieving an accelerated economic growth rate estimated at 7%;

(iii) Increase in the stock of jobs by an annual average of 520,000;

(iv) Fostering price stability by maintaining core inflation within the target band of 5% +/- 3;

(v) Promote a competitive foreign exchange rate by ensuring that an appropriate level of reserves in terms of months of imports of goods and services is achieved (EAC target at least 4.5 months);

(vi) Pursuing a prudent fiscal policy with the aim of supporting macroeconomic stability consistent with regional and domestic fiscal rules. This includes a ceiling on debt to GDP of 50% in present value terms and a gradual achievement of a fiscal deficit of 3% by FY 2024/25;

(vii) Domestic revenue annual growth of 0.5 of GDP percentage points.

44. The key selected economic and financial indicators are shown in Table 3.1.

Table 3.1. Uganda: Selected Economic and Financial Indicators, FY 2018/19 - 2024/25

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
	(Annual percentage changes, unless otherwise indicated)						
Output, prices and exchange rate							
Real GDP	6.51	6.30	6.20	6.00	6.50	6.88	7.00
GDP Deflator	0.62	4.26	5.08	5.97	5.65	5.32	4.73
Headline inflation (Period average)	3.14	4.28	5.49	6.08	5.66	5.29	5.00
Core inflation (period average)	3.80	4.53	5.98	6.18	5.18	4.96	5.00
Exchange rate (Ugandan Shillings/US)	2.13	3.25	-0.66	3.30	4.77	2.77	1.50
Money and Credit							
Broad money (M3)	7.28	14.15	15.64	15.78	17.20	17.26	16.73
Credit to non-government sector	13.56	14.33	13.62	16.28	16.45	16.98	17.01
M3/GDP (percent)	18.99	19.58	20.29	20.91	21.78	22.69	23.64
	(Percentage of GDP, unless otherwise indicated)						
Central Government Budget							

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Revenue and Grants	13.49	15.28	15.17	15.31	15.58	16.11	17.04
Of which:							
Grants	0.54	1.29	0.98	0.72	0.57	0.44	0.34
Tax revenue	12.58	12.80	13.20	13.60	14.03	14.49	15.01
Non-Tax Revenue	0.37	1.19	0.99	0.99	0.98	0.99	0.99
Oil revenue	-	-	-	-	-	0.19	0.70
Expenditure	18.84	21.46	21.72	21.25	20.87	20.18	20.01
Recurrent	9.91	10.42	10.43	10.34	10.34	10.41	10.52
Development	7.82	10.48	10.70	10.92	10.53	9.77	9.11
Net lending and investment	1.11	0.56	0.59	-	-	-	0.38
Primary balance	-3.43	-3.87	-4.38	-3.83	-3.20	-2.01	-0.99
Overall balance	-5.35	-6.18	-6.55	-5.95	-5.29	-4.07	-2.97
Excluding grants	-5.89	-7.47	-7.53	-6.67	-5.86	-4.51	-3.31
Of which: Net Domestic Borrowing	1.92	2.16	1.46	1.14	0.94	0.45	0.24
Public debt							
Public gross debt	35.80	39.30	41.56	43.78	45.29	44.73	41.38
External debt	23.56	26.29	28.47	31.04	33.24	33.46	30.96
Domestic debt	12.23	13.02	13.09	12.74	12.05	11.27	10.42
Interest payment to revenue	14.81	17.25	15.83	15.04	14.44	13.58	12.25
Domestic Debt Stock to Private Sector Credit	98.50	101.50	100.53	94.91	88.25	79.81	70.71
Investment and savings							
Investment	26.46	39.22	39.19	38.71	37.33	35.39	34.46
Public	8.93	11.04	11.29	10.92	10.53	9.77	9.49
Private	17.53	28.18	27.91	27.79	26.80	25.62	24.97
Savings	16.29	30.29	30.62	30.83	29.77	29.11	29.21
Public	3.04	3.57	3.76	4.25	4.66	5.26	6.18
Private	13.25	26.73	26.86	26.58	25.11	23.85	23.03
External sector							
Current account balance (including grants)	-9.81	-8.40	-8.18	-7.62	-7.35	-6.12	-5.13
Current account balance (excluding grants)	-10.17	-8.92	-8.58	-7.88	-7.56	-6.28	-5.25
Export (goods and services)	11.52	10.29	9.65	9.41	9.30	8.94	8.50
Imports (goods and services)	19.73	17.49	16.27	15.19	14.75	13.39	12.23
Gross international reserves							
In months of next year's total imports	4.40	4.13	4.28	4.24	4.35	4.47	4.51
Memorandum Items:							
GDP at current market prices (UGX bn)							
Ushs. Bn	128,499	142,284	158,775	178,350	200,667	225,883	253,117
USD. Bn	34.39	36.88	41.43	45.05	48.38	52.99	58.50
GDP per capita (Nominal USD)	878	920	990	1,064	1,139	1,220	1,301
Population (million)	39.00	40.24	41.51	42.80	44.11	45.45	46.80

* The threshold for interest payment to revenue is 15%, whereas the threshold for domestic debt to private sector credit is 75%.

3.2 Economic Growth

3.2.1 Economic Growth Prospects for NDP III

45. **The NDP III growth prospects are hinged on the assumption that all interventions and projects outlined will be efficiently implemented between FY 2020/21 – FY 2024/25**. Real GDP growth is estimated to range between 6.2 to 7.0 percent during this period supported by continued productivity enhancement. To remedy the climate change risk that subdued growth in NDPII, in NDPIII Government will augment efforts to limit rain-fed agriculture by extensively pursuing construction of mini-micro irrigation schemes and multi-purpose surface storage facilities/ reservoirs in the NDP III period. Growth will also be supported by the good the Global and Regional economies prospects; Improvement in macroeconomic environment; Recovery in private sector activity supported by the pick-up in private sector credit; and rising domestic demand. Table 3.2 shows sectoral contribution to GDP for the NDP III period.

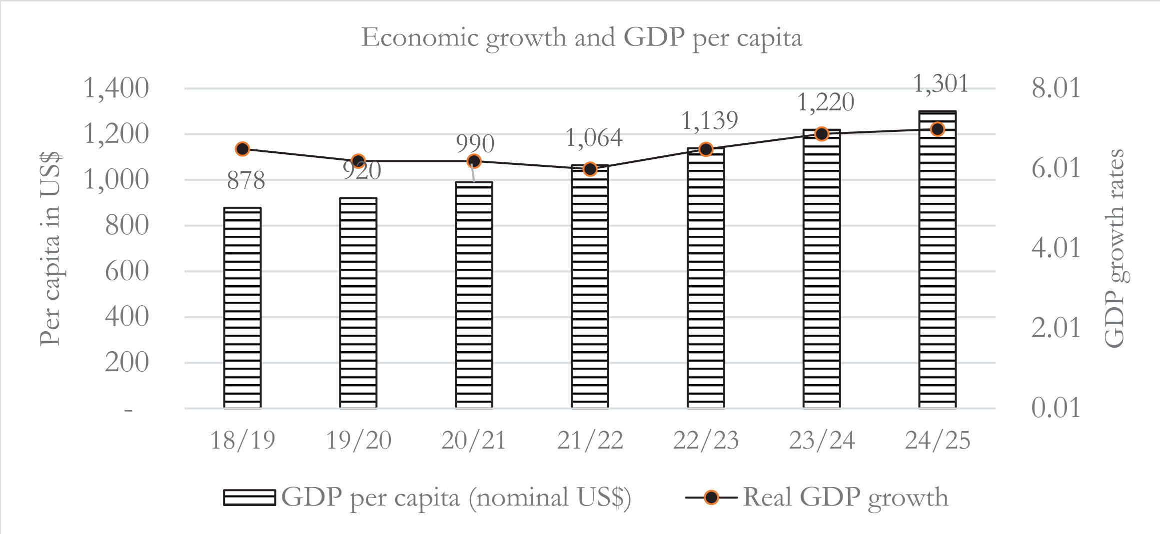
Table 3.2: Contribution to growth by sector, FY 2018/19 - 2024/25

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Real GDP*	6.51	6.30	6.20	6.00	6.50	6.88	7.00
Agriculture, forestry and fishing	**1.72**	1.65	**1.61**	**1.55**	**1.66**	**1.75**	**1.78**
of which:							
Cash crops	0.15	0.14	0.14	0.13	0.14	0.15	0.16
Dairy farming	0.11	0.10	0.10	0.10	0.11	0.12	0.12
Food crops	0.96	0.92	0.90	0.87	0.94	1.00	1.02
Fishing	0.14	0.13	0.13	0.12	0.13	0.13	0.13
Livestock	0.11	0.11	0.11	0.10	0.11	0.12	0.13
Other	0.26	0.24	0.23	0.21	0.22	0.22	0.22
		1.65					
Industry	**1.83**	1.79	**1.80**	**1.76**	**1.94**	**2.08**	**2.15**
Of which:							
Agro – processing	0.67	0.65	0.65	0.64	0.70	0.75	0.77
Construction, cement and lime	0.48	0.47	0.48	0.48	0.54	0.59	0.61
Electricity and water	0.24	0.23	0.23	0.22	0.24	0.26	0.26
Mineral development	0.08	0.09	0.09	0.09	0.10	0.11	0.12
Other Manufacturing	0.37	0.35	0.34	0.33	0.35	0.37	0.38
		1.79					
Services	**2.95**	2.86	**2.80**	**2.69**	**2.90**	**3.04**	**3.08**
Of which:							
Transport services	0.39	0.36	0.34	0.31	0.32	0.32	0.31
Wholesale and retail trade	0.15	0.15	0.14	0.14	0.15	0.15	0.16
Telecommunications-ICT	0.21	0.21	0.22	0.22	0.24	0.26	0.27
Insurance	0.13	0.13	0.13	0.13	0.14	0.15	0.16
Financial services	0.16	0.16	0.15	0.15	0.16	0.17	0.17
Health	0.08	0.08	0.08	0.08	0.09	0.09	0.09
Public Administration	0.20	0.19	0.18	0.17	0.19	0.20	0.20
Other services	1.63	2.86	1.55	1.50	1.62	1.70	1.72

*Results based on the structure of the 2016/17 Social Accounting Matrix (SAM)

46. Following the above growth prospects, per capita income is projected to improve from 878 USD in FY 2018/19 to 1,301 USD in FY 2024/25, hence achieving middle-income status within the NDP III period. The projected trend of per-capita income and real GDP is shown in Figure 3.1.

Figure 3.1: GDP per capita and real economic growth



3.2.3 Growth and Employment Creation Strategy

47. **The Economic Growth Strategy that underpins the NDP III is built on the need for rapid industrialization of the Ugandan economy linked to high productivity and production in agriculture; while nurturing the potential of the tourism, minerals, oil and gas sectors**. The growth of these sectors will provide gainful employment to the majority of Ugandans.

48. The Economic Growth Strategy focuses on five key objectives:

(i) Expanding the Industrial Base of the Economy;

(ii) Consolidate and increase the stock and quality of productive infrastructure;

(iii) Enhancing Productivity especially in the Agricultural sector;

(iv) Exploiting Natural Resource Endowments with Environmental Protection in mind; and

(v) Supporting private sector development through providing affordable financing for Production and Business.

49. **The overall broad growth strategy highlighted above and detailed in the specific program chapters 5-22 will contribute to the creation of 2.6 million jobs over the course of NDPIII period**. The new jobs corresponding to the growth strategy over the entire NDPIII period are 2.6 million with an annual average of around 520,000 jobs. The highest number of jobs (1.378 million jobs) will come from the services sector with the Trade subsector contributing the largest proportion. Agriculture will be the second highest

contributor to jobs, followed by industry whose largest share of jobs will arise from manufacturing (see Table 3.3).

Table 3.3: The Stock of New Jobs created 2021-24/25

Industry of employment	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**
Agriculture, forestry and fishing	153,808	155,476	159,804	164,866	171,421
Industry	73,893	76,480	84,109	91,330	97,129
Manufacturing	46,611	48,231	52,985	57,486	61,138
Construction	27,282	28,249	31,124	33,844	35,991
Services	233,176	239,588	274,603	305,902	324,857
Trade	141,754	146,000	167,257	186,406	198,580
Transport and storage	12,556	12,374	14,881	16,827	17,599
Education	20,434	21,234	23,487	25,754	27,621
Other service activities	31,407	32,239	37,076	41,342	43,568
Hotels , restaurant eating places	27,025	27,741	31,902	35,573	37,489
Other industrial activities	18,711	16,753	5,314	- 4,098	- 7,550
Total	**479,588**	**488,298**	**523,830**	**558,000**	**585,858**

3.3 Fiscal Strategy

50. **Government will continue to pursue fiscal policy that maintains macroeconomic stability and supports inclusive growth, while preserving debt sustainability**. To achieve these objectives, Government's fiscal strategy will therefore focus on;

(i) Continued investment in public infrastructure to accelerate inclusive growth while enhancing efficiency in public investment through the implementation of the Public Investment Management Strategy (PIMS).

(ii) Increased revenue mobilisation particularly through the operationalisation of the Domestic Revenue Mobilisation Strategy (DRMS), aimed at reducing debt reliance and Keep debt at sustainable levels

51. **Despite the need to bridge the infrastructure gap, the fiscal strategy will ensure that the fiscal deficit remains within sustainable levels over the medium to long-term.** Therefore, the NDP III macroeconomic framework adopts a fiscal deficit path where the debt to GDP ratio remains below 50 percent and the ratio of interest payments to domestic revenue remains at less than 15%. The fiscal deficit will gradually decline to below 3 percent of GDP by FY 2024/25, while expenditure to GDP will average 20.8 percent between FY 2020/21 and FY 2024/25. Tax revenue to GDP is projected to open at 13.2 percent of GDP in FY 2020/21 and to close at 15.0 percent in FY 2024/25. Therefore, tax revenue to GDP is projected to increase by 0.44 percentage points per fiscal year. The fiscal deficit path over the NDP III period is shown in figure 3.2.

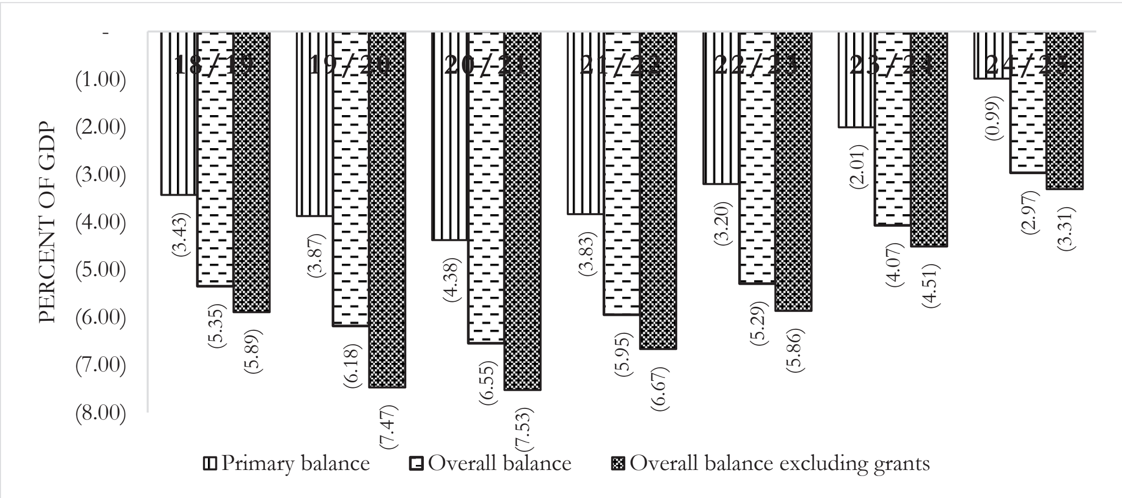
3.3.1 Revenue Strategy

52. **The revenue strategy over the NDP III period will focus on improving compliance and efficiency in tax revenue collections through implementation of the Domestic Revenue Mobilization Strategy (DRMS)**. Emphasis will be given to strengthening administrative

efforts so as to narrow the gap between current and potential revenue performance. Administrative efforts will be achieved through providing better training and resources to URA to modernize and expand ICT capability and other necessary tools. This will foster higher compliance.

53. Overall, these developments will result into total revenues and grants increasing from 15.2 percent to 17.0 percent of GDP between FY 2020/21 and FY 2024/25. An increase in revenue would reduce the country's deficit and consequently her reliance on debt thus keeping debt at sustainable levels.

Figure 3.2. Overall fiscal deficit (percentage of GDP)



3.3.2 Expenditure Strategy

54. **The NDPIII expenditure strategy will focus on continued investment in public infrastructure to further bridge the infrastructure gap for production enhancement and accelerate inclusive growth**. The details of this strategy are articulated in program chapters 5-20 in the follow up sections. To reap the full return on the public infrastructure investments, strategy will focus on enhancing efficiency in public investments through adherence to the PFMA and implementation of the Project Implementation Management Strategy (PIMS).

55. **The key projects to spur productivity and thus economic growth include**; improving transport infrastructure including road, air and railway; construction of refinery and Crude Oil pipeline; power production and distribution; construction of industrial parks to ease cost of doing business; provision of water for production like irrigation schemes and valley dams; agricultural post-harvest handling and marketing and more. Most spending on infrastructure is expected in FY 2021/22, driven by construction by the oil related infrastructure.

3.3.3 Deficit Financing and Debt Sustainability

56. **Revenue growth, while showing improvements, still remains subdued and cannot yield all the required financial resources to meet the required development needs**. Spending will be frontloaded during the NDPIII period with the deficit averaging 5.0%

over the NDP III period and peaking at 6.5% in FY 2020/21, before narrowing to a modest 3.0% in FY 2024/25. The primary deficit will average 2.9% over the period, reducing from a peak of 4.4% in 2020/21 and settling at 1.0% in FY 2024/25.

57. **A higher debt stock comes with a greater risk of debt distress, and its macroeconomic consequences**. To this end, the Government remains committed to carefully analysing its debt sustainability before contracting any new debt. Borrowing will be prioritised for those projects with higher economic returns; and the operationalisation of the newly developed Project Implementation Strategy (PIMS) is also expected to greatly improve efficiency in public investment. Contingent liabilities like debt of state-owned enterprises are a potential risk to debt sustainability, thus to better manage this risk, government is developing guidelines for borrowing by state-owned enterprises, and will continuously monitor these liabilities. This will allow the ambitions of NDPIII to be realised without compromising macroeconomic stability.

Table 3.4. Sources of financing - Percentage of GDP

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Overall balance	-5.35	-6.18	-6.55	-5.95	-5.29	-4.07	-2.97
Over balance, excluding grants	-5.89	-7.47	-7.53	-6.67	-5.86	-4.51	-3.31
Primary balance	-3.43	-3.87	-4.38	-3.83	-3.20	-2.01	-0.99
Financing	5.35	6.18	6.55	5.95	5.29	4.07	2.97
External financing	3.21	4.02	5.08	4.81	4.35	3.62	2.73
Disbursement	3.80	4.53	5.66	5.48	5.13	4.35	3.56
Budget support	0.15	0.41	0.48	0.22	0.10	0.09	0.00
Concessional project loans	2.44	2.21	2.43	2.27	1.83	1.36	0.50
Non-concessional borrowing	1.21	1.92	2.76	2.99	3.19	2.90	3.07
Amortisation (-)	-0.59	-0.51	-0.58	-0.68	-0.78	-0.73	-0.84
Domestic financing (net)	1.92	2.16	1.46	1.14	0.94	0.45	0.24
Banking financing	0.98	1.26	0.82	0.57	0.47	0.13	0.05
Bank of Uganda	-3.81	-4.18	-3.37	-3.15	-2.73	-2.58	-2.27
Commercial banks	4.79	5.44	4.19	3.72	3.20	2.71	2.32
Non-Bank financing	0.74	0.90	0.64	0.57	0.47	0.32	0.19

58. Table 3.4 shows that external financing will be the main source of financing for the deficit over the NDPIII period. Both external and domestic financing will decrease over the course of NDPIII as the major infrastructure projects gradually come to a completion. External financing will average 4.1% of GDP over the period whilst domestic financing will average not more than 1.0% of GDP, with the view of avoiding crowding out of the private sector. Initially most external financing will come from concessional project loans; however, this will taper down from 2.4% of GDP in FY 2020/21 to 0.5% of GDP in FY 2024/25. In contrast, non-concessional borrowing is expected to increase from 2.8% of GDP in FY 2020/21, peaking at 3.2% in FY 2022/23 and then close at 3.1% in FY 2024/25. Budget support is a small component of overall financing, averaging 0.2% of GDP over the NDP III period.

59. Government will implement the integrated national financing framework and strategy that takes cognizance of emerging innovative financing options for both public and private sector to deliver NDPIII goals.

External Financing

60. **Concessional loans from multilateral creditors will continue to be an important source of financing for NDPIII, averaging at 1.7% of GDP over the period**. These loans are characterised by long maturity periods and low interest rates; and will therefore continue to be maximally tapped especially for long term investments. Non-concessional external borrowing will also be required given the ambition of the NDPIII, and because concessional borrowing is not always available for all projects. Non-concessional borrowing is projected to average 3.0% of GDP over the NDPIII period. Government will continue to ensure that for projects where concessional loans cannot be secured, semi-concessional loans are prioritised over Non-concessional borrowing and the terms negotiated are at the least cost and risk as possible.

Domestic Financing

61. **Domestic financing will be used carefully to avoid crowding out the private sector, and so constraining private investment and growth**. Conversant of this, domestic financing will be a relatively small net source of financing, averaging not more than 1.0% of GDP over the NDPIII period.

3.4 Monetary Sector

62. **The BOU's monetary policy stance will continue to be geared to ensuring price stability and supporting economic activity over the NDP III period**. The inflation outlook is expected to remain within the monetary policy target. The major risks to the outlook relate to increased aggregate demand - due to increased economic activity in the Oil and Gas sector. However, the objective of monetary policy over the NDPIII period will be to maintain annual core inflation within the target band of 5% +/-3 (Table 3.5).

Table 3.5: Monetary Accounts, FY 2018/19 - FY 2024/25

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
		Depository Corporations Survey					
Net foreign assets	13,871	14,418	16,289	18,001	19,486	21,127	21,402
Bank of Uganda	13,407	13,939	15,812	17,509	18,970	20,598	20,864
Commercial banks	464	480	476	492	516	530	538
Net domestic assets	10,533	13,439	15,925	19,296	24,226	30,128	38,426
Claims on central government (net)	3,973	5,761	7,059	8,076	9,021	9,313	9,438
Claims on the private sector	15,959	18,246	20,730	24,105	28,070	32,837	38,423
Other items (net)	-9,552	-10,677	-11,996	-13,006	-12,991	-12,145	-9,560
Money and quasi-money (M3)	24,404	27,857	32,214	37,296	43,712	51,255	59,828
Foreign exchange deposits	7,126	8,079	9,471	10,928	12,764	14,915	17,350
		Bank of Uganda					
Net foreign assets	13,407	13,939	15,812	17,509	18,970	20,598	20,864
Net domestic assets	-6,638	-6,261	-7,035	-7,424	-7,203	-6,864	-4,900
Claims on central government (net)	-2,077	-1,571	-1,292	-1,292	-1,292	-1,716	-2,070
Claims on commercial banks	-1,862	-1,998	-2,914	-3,148	-2,754	-1,799	732

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Other items (net)	-2,772	-2,767	-2,909	-3,067	-3,243	-3,439	-3,655
Base money	6,768	7,678	8,777	10,084	11,767	13,733	15,964
Currency in circulation	4,592	4,766	5,058	6,215	7,227	8,389	9,935
Commercial bank deposits	2,176	2,912	3,719	3,870	4,540	5,344	6,029
		Other Depository Corporations					
Net foreign assets	464	480	476	492	516	530	538
Net domestic assets	20,148	22,780	26,695	31,558	36,959	45,302	52,402
o/w Claims on central government (net)	6,049	7,332	8,351	9,368	10,313	11,029	11,508
Claims on private sector	15,898	18,182	20,664	24,035	27,996	32,759	38,342
Deposit liabilities to the non-bank public	20,612	22,813	26,747	31,632	37,044	45,408	52,515
Shilling deposits	13,284	15,538	18,239	21,586	25,869	30,946	36,749
Foreign exchange accounts	7,126	8,079	9,471	10,928	12,764	14,915	17,350
Memorandum items:							
(Annual percentage change)							
Base money	11.1	13.4	14.3	14.9	16.7	16.7	16.2
M3	7.3	14.2	15.6	15.8	17.2	17.3	16.7
Credit to the private sector	13.4	14.3	13.6	16.3	16.4	17.0	17.0
Memorandum items:							
Base money-to-GDP ratio (percent)	5.3	5.4	5.5	5.7	5.9	6.1	6.3
M3-to-GDP ratio (percent)	19.0	19.6	20.3	20.9	21.8	22.7	23.6
Credit to the private sector (percent of GDP)	14.5	11.2	11.5	11.6	12.0	12.4	13.0
Gross reserves of BOU (USUSD millions)	3,338	3,323	3,576	3,701	3,770	3,938	3,970
Velocity (M3)	5.5	5.1	4.9	4.8	4.6	4.4	4.2

3.4.1 Foreign exchange market

63. **Over the NDP III period, significant financing for infrastructure investment will be sourced externally.** Although a significant portion of the external financing is likely to be spent on project imports, there is still a portion that will be spent in the domestic economy. Additionally, oil and gas sector related activities will add to increased foreign currency inflows into the domestic economy. This is likely to put appreciation pressure on the shilling over the medium term. However, government will continue to promote a competitive exchange rate through prudent management of foreign exchange reserves. This will cushion the economy against the excessive exchange rate volatilities

3.4.2 Domestic liquidity and private sector credit

64. **Domestic liquidity will not be significantly impacted on by public investment because of the high import content of the infrastructure projects to be undertaken**. However, a higher fiscal deficit –albeit steadily declining over the period, to be largely financed by external borrowing will lead to liquidity injection that must be prudently managed to maintain low and stable inflation without affecting the level of private sector credit.

65. Over the NDPIII period, the level of domestic borrowing to finance the budget will be maintained at an average of about 0.88% of GDP to minimise crowding out. This is expected to increase private sector credit growth from NDPII annual average of 10% to NDPIII annual average of 16.1 percent.

3.5 Financial Sector Development

66. **Government will continue to develop the financial sector and its infrastructure in an effort to catalyse the mobilization of domestic savings and investments**. Ideally, the financial sector facilitates the process of generating long-term savings and adequately allocates those financial resources to productive investment for development through effective private sector lending. To that end, and in light of the country's Financial Sector Development Strategy (FSDS) four strategic interventions will be implemented, namely:

    1) **Increasing access to and use of finance**, to be able to channel available resources into formal platforms, priority actions will target offering a wide range of products and services through expanded delivery channels including Digital Financial Services (DFS), Credit, Non-Life and micro insurance, micro pensions, agriculture finance, agent banking among others. In addition, financial literacy programmes with a particular emphasis to digital finance is critical in accelerating use and access to formal finance.

    2) **Increasing access to long-term finance**, as a way of mobilizing savings and channelling them to areas where they are most needed, the capital markets infrastructure will be developed. This will also be complimented with efforts of expanding retirement benefits, increasing life insurance penetration, improving provision of long-term finance by development finance institutions among others.

    3) **Strengthening innovation and supporting infrastructure** by supporting and fostering innovations in the financial sector as well as the financial markets infrastructure development.

    4) **Strengthening financial stability and integrity**. This will involve strengthening the regulatory and supervisory capacity of the various players in the financial sector in order to enhance financial consumer protection, prevent and mitigate the financing of terrorism as well as countering money laundering vices that may jeopardize the country's financial systems.

3.6 External Sector Developments

67. **The overall current account balance (including grants) is set to improve from a deficit of 8.2 percent of GDP in FY 2020/21 to 5.1 percent in FY 2024/25**. The improvement is on account of relatively larger drop in imports to GDP compared to exports to GDP. There is potential for exports growth especially for processed foods due to planned government's interventions in agro-processing. Exports are projected to increase from USD 5,645 million in FY 2019/20 to USD 7,356 million in FY 2024/25. On the other hand, imports are expected to increase from USD 9,099 million in FY 2019/20 to USD 10,567 million in FY 2024/25 (Table 3.6). The current account will be partly financed by increase in foreign direct investments and government foreign borrowing. The strategy is envisaged to yield a healthy level of reserves cover equivalent to an annual average of 4.37 months of imports of goods and services.

Table 3.6: Balance of payments, FY 18/19 - FY 2024/25

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Current account (mm USUSD)	-3372	-3099	-3389	-3432	-3557	-3242	-3001
Trade balance	-2822	-2656	-2744	-2608	-2636	-2360	-2179

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Exports, f.o.b.	3962	3794	3997	4237	4498	4735	4973
Of which: coffee	416	472	498	526	555	585	618
Imports, f.o.b.	-6783	-6450	-6740	-6844	-7134	-7095	-7152
Oil imports	-979	-967	-999	-1032	-1067	-779	-407
Government infrastructure-related imports	-601	-446	-440	-408	-385	-333	-184
Services (net)	-885	-798	-966	-1115	-1164	-1028	-1032
Other (net)	-885	-798	-966	-1115	-1164	-1028	-1032
Credit	1936	1851	1955	2058	2176	2283	2383
Debit	-2821	-2649	-2921	-3172	-3340	-3312	-3415
Primary income (net)	-1310	-1260	-1297	-1317	-1383	-1466	-1355
Of which: interest on public debt	-114	-136	-137	-133	-129	-122	-122
Secondary income	1644	1615	1617	1607	1626	1612	1565
Private transfers	1494	1408	1437	1471	1507	1507	1473
o/w workers remittances (credit)	1244	1294	1339	1383	1429	1452	1452
Official transfers	150	206	180	136	119	105	93
o/w Budget support (including HIPC)	72	26	24	0	0	0	0
Other official transfers (capital gains tax)	69	180	156	136	119	105	93
Capital and financial account	3087	3084	3642	3557	3625	3410	3031
Capital account	100	199	242	206	175	149	126
Of which: project grants	100	199	242	206	175	149	126
Financial account	2987	2884	3400	3351	3450	3261	2904
Foreign direct investment (net)	1758	1532	1879	1798	1944	1850	1735
Portfolio investment (net)	-176	-220	-229	-240	-249	-256	-274
Other investment	1400	1567	1745	1788	1749	1661	1437
Public sector (net)	1019	1414	2016	2027	2034	1871	1644
SDR allocation	0	0	0	0	0	0	0
Build-up (-)/drawdown (+) of petroleum fund	0	0	0	0	0	0	0
Loan disbursements	1345	1672	2347	2471	2481	2308	2085
Budget support (loans)	50	150	200	100	50	50	0
Project support (loans)	1295	1523	2148	2372	2431	2258	2085
Non-concessional borrowing	0	0	0	0	0	0	0
Amortization due	-244	-189	-263	-380	-386	-384	-411
Commercial banks (net)	264	77	-400	-369	-418	-349	-341
Other private (net)	117	76	129	130	133	138	134
Errors and omissions	354	0	0	0	0	0	0
Overall balance	69	-15	253	125	69	168	30
Financing	-69	15	-253	-125	-69	-168	-30
Central bank net reserves (increase = –)	-65	15	-253	-125	-69	-168	-31
Use of Fund credit	0	0	0	0	0	0	0
Exceptional financing	-3	0	0	0	0	1	1
Memorandum items:	0	0	0	0	0	0	0
Gross official reserves	3338	3323	3576	3701	3770	3938	3970
Months of next year's imports of goods and services	4	4	4	4	4	4	5
Net donor support	1472	1863	2511	2590	2582	2393	2158
o/w Budget support (loans and grants incl. HIPC)	123	176	223	100	50	50	0
Project support (loans and grants)	1349	1687	2288	2491	2532	2343	2158
Current account balance (percent of GDP)	-9.8	-8.4	-8.2	-7.6	-7.4	-6.1	-5.1
Current account balance (excluding grants)	-10.2	-8.9	-8.6	-7.9	-7.6	-6.3	-5.3
Trade balance (percent of GDP)	-8.2	-7.2	-6.6	-5.8	-5.4	-4.5	8.5
Exports (percent of GDP)	11.5	10.3	9.6	9.4	9.3	8.9	8.5

	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Imports (percent of GDP)	19.7	17.5	16.3	15.2	14.7	13.4	12.2

PART II: STRATEGIC FOCUS, NATIONAL DEVELOPMENT PROGRAMS AND FINANCING

CHAPTER 4: STRATEGIC DIRECTION

4.1 Goal

68. The **goal of NDPIII is to Increase Average Household Incomes and Improve the Quality of Life of Ugandans**. Achievement of this goal assumes that sustained peace, security, good governance, and a stable macro-economic environment will continue to prevail and that these will provide the basic anchor for economic growth and development under this plan. NDPIII aims to pursue achievement of these goals under the overall theme of **Sustainable Industrialization for inclusive growth, employment and sustainable wealth creation**.

4.2 Development Objectives

69. **NDPIII has five Development Objectives**. In pursuit of the industrialization agenda, proposed NDPIII's objectives are based on the country's comparative advantages that lie in its abundant natural resources and young population, the achievements registered so far from investments in productive infrastructure as well as the partnerships forged between the public and private sectors. These objectives meet the purpose of accelerating growth of the economy, transforming the lives of the people and strengthening the country's regional and international competitiveness. The five objectives are:

(i) Enhance value addition in key growth opportunities

(ii) Strengthen the private sector to create jobs

(iii) Consolidate and increase the stock and quality of productive infrastructure

(iv) Enhance the productivity and social wellbeing of the population

(v) Strengthen the role of the state in guiding and facilitating development

70. These strategic objectives will provide the framework for streamlining and directing government, private sector, civil society and development partners' investments towards:

(i) Increased agricultural production/productivity and agro-processing, mineral beneficiation and mineral-led industrialization, oil refining, tourism expansion, and labour-intensive light manufacturing (including cottage industries).

(ii) Sequential and coordinated infrastructure investments in energy, roads, water, air, rail, industrial parks, and mechanized irrigation schemes to support increased production/productivity for export expansion and the production of goods that are otherwise imported.

(iii) Increased generation of more skilled, better motivated and healthier workforce for all sectors of the economy, but particularly for industrial sector as well as a modernized agricultural sector.

(iv) A strengthened private sector that is able to drive growth and investment in collaboration with the state.

4.3 Theory of change

71. **The theory of change for this plan is predicated on the achievement of higher household incomes and increased well-being through resource led sustainable industrialization**. Resource led sustainable industrialization will address the challenges of low value addition, low gainful employment, low technology importation and uptake. The expansion of Uganda's manufacturing industry and the steps towards industrialization provide unmatched potential for accelerated growth by adding value to raw materials that are produced locally, rather than being exported unprocessed. This processing will create better and more sustainable jobs and will eventually lead to higher household incomes and thus a better quality of life for our citizens by deepening the national value chains.

72. **Under this plan, government will play a more definitive role in addressing the challenges that are manifest due to the failure or absence of incentives to enable the market operate efficiently**. In other words, the state will play a developmental role in order to achieve Vision 2040 and not simply rely on market mechanisms.

4.4 Key Development Results

73. At the strategic/macro level, tracking progress made during the implementation of this plan will be done through a set of program indicators, as defined below. These indicators cover all major areas of interest under the five strategic objectives. Targets to be achieved at the end of the five-year period have been set within the context of Vision 2040 targets as well as the FY 2017/2018 baseline.

Table 4.1: NDP III Key Development Results

No.	Expected key targets	Baseline FY2017/18	NDP II target	NDP III target	Vision 2040 Target
Goal: Increased household incomes and improved Quality of life					
1	Income per Capita (USD)	864	1,039	1,301	9500
2	Poverty rates (% below poverty line)	21.4	14.2	15.5	5.0
3	Reduced Income Inequality (Gini coefficient)	0.41	0.45	0.39	0.32
4.	Gender Equality Index	0.523			
5.	Population growth rate (%)	3		2.5	2
Objective 1: Enhance value addition in Key Growth Opportunities					
6	Real GDP growth rate	6.2	6.3	7.0*	8.2
7	Rate of growth of the industrial sector (%)	6.1		8.1	9.05
8	Contribution of industry to GDP (%)	18.6		25	31.4
9	Value of manufactured exports in total exports (%)	12.3	19.0	20	50
10	Increase in share of intermediate goods (inputs) in total imports (%)	18.6		25.5	
11	Tourism receipts (USD billion)	1.3		2.5	
12	Rate of growth of the agricultural sector	3.8 (6.1)	5.37	7	4.65
Objective 2: Strengthen private sector capacity to drive growth and create jobs					
13	Number of fully serviced industrial and business parks	0		22	
14	No. of IBPs that are fully serviced	0		22	

15	Savings (% of GDP)		16	35	35	35
16	Ratio of Exports to GDP (%)		12.7 (15)	9.95	20	
17	Reduced Youth unemployment		13.3		6.6	
Objective 3: Consolidate & increase stock and quality of Productive Infrastructure						
18	Energy generation capacity (MW)		943	3000	3500	41,738
19	Access to electricity (%)	Gazetted IBPs with access to 132KV line)				
		Household population	21	30	60	80
20	Paved national roads (% of total national roads)		21.1	25 (6,000)		(80) 119,840
21	Number of districts with access to internet broadband		22		100	
Objective 4: Increase productivity and wellbeing of Population						
22	H/holds dependent on subsistence agriculture as a main source of livelihood (%)		68.9		55	
23	Life expectancy at birth (years)		63.3	60		85
24	Proportion of labour force transitioning into gainful employment and enterprise development		34.5%		55%.	
25	Wetland cover (%)		10.9	12	12	13
26	Electricity consumption per capita (Kwh)		100	578	578	3,668
27	Forest cover (% of total land area)		9.5	18	18	24
28	Average years of schooling		6.1	11	11	18
29	Infant Mortality Rate/1000		64	44	-	4
30	Maternal Mortality Ratio/100,000		336	320	299	15
31	U5 Mortality Ratio/1000		64	59	52	8
32	Total Fertility Rate		5.4	4.5	4.4	3.0
33	WASH Coverage (%)	Rural Water	74.9	79	85	100
		Urban Water	92.3	100	100	100
		Sanitation (Improved toilets)	19		40	80
		Hygiene (Handwashing)	34		50	90
34	Social Protection Coverage (%)	Health insurance 2% to 25%	2	6	25	70
		Social security	2		25	70
		Social assistance to vulnerable groups (PWDs, OVCs, elderly, poor) (%)			50	
35	Extent of hunger in the population (%)		40		20	5
36	Stunted children U5 (%)		29	25	20	0
Objective 5: Strengthen the role of the State in development						
37	Cost of electricity to USD 5 cents for all processing and manufacturing enterprises		8	5	5	
38	Revenue to GDP ratio (%)		12.5	-	15.01	25

4.5 Development Approach

74. A lot has been achieved under NDPII in terms of strengthening the fundamentals to enable harnessing of the development opportunities. Whereas this is set to continue, government will under NDPIII intensify efforts to harness the already available opportunities in agriculture, minerals, oil and gas as well as tourism. As a low-income country, with poorly functioning markets, government will play a more pronounced role in stimulating investment in these opportunity areas. Therefore, the major thrust of NDPIII will be on

harnessing opportunities and repositioning the role of the state in the development process using a four-pronged approach:

4.5.1 Enhanced role of the state

75. The Constitution of the Republic of Uganda (1995) as amended, under the "National Objectives and Directive Principles of State Policy" defines the "Role of the State in Development" in XI (ii) as follows:

….. *(ii) The State shall stimulate agricultural, industrial, technological and scientific development by adopting appropriate policies and the enactment of enabling legislation".*

76. Until now, the role of the state in development has been limited due to, initially, weak capacity of government (financial and technical) but, later on, adoption of the liberalization policies. Consequently, government divested itself from the ownership of many strategic but publicly owned enterprises and corporations. However, economic history (and Uganda's own experience in the energy sector) has shown that the private sector is not always able to efficiently allocate resources within the context of a country's long-term growth prospects. In sectors like energy or transport, the state is more ideally suited to invest, as it can invest for the long term and is not seeking immediate short-term gains. The state can afford longer periods of capital recovery with minimal profits. Under this plan, government will invest directly or in partnership with the private sector (under PPP arrangements) in selected strategic sectors, particularly energy, transport infrastructure and specialized health and education institutions to compensate for market failures and develop strategic competitive advantages. It will also mean protecting our nascent industries to in our bid to industrialize.

4.5.2 Program based approach

77. **To strengthen the alignment of plans, budgets, and implementation at the macro, sector and local government level; government will introduce the program-based approach to planning.** Within the context of this Plan, a program is a group of related interventions/projects that are intended to achieve a common objective within a specified timeframe. The program approach has been adopted for three main reasons:

(i) To focus implementation on delivery of common results. Achievement of results specified in these development frameworks does not neatly within any particular sector;

(ii) To strengthen alignment and eliminate the 'silo' approach to service delivery and enhance synergies across sectors and other actors;

(iii)To provide a framework for the already existing programme-based budgeting.

78. **Using this approach, national programs have been designed to provide the framework for budgeting and implementation of activities that will deliver the specified result**s. These programs have been developed using the value chain approach to ensure all interventions targeting the bottlenecks at the different stages of the value chain as well as the relevant stakeholders are identified. In addition, this approach will improve the linkage

between the national results framework as outlined in NDP III and the annual plans/budgets (for sectors and MDAs) that provide the conduit for implementation. The MTEF and annual national budgets will then be based on the developed and costed programs and projects included in NDPIII, and these programs and projects will have the first call on the financial resources in the national budget.

4.5.3 Regional Approach to Planning and Implementation

79. **To address area specific priorities and inequities in growth and household incomes, local government planning and implementation will be strengthened as the major driver of Local Economic Development** (LED). Groups of local governments will be supported to develop Regional Development Plans in order to address specific development programs that transcend district boundaries. A group of districts in northern Uganda have already come together and developed the Northern Uganda Regional Development Plan. Another Regional Development Plan has been developed for the Kasese region. The Busoga region is also considering developing a Regional Development Plan. The different regions will also be supported to do the same.

4.5.4 Area based commodity planning

80. **Using the experience of success obtained from Kalangala, Ankole, Kigezi and Toro in the commercial production of vegetable oil, dairy and tea (respectively); the Area Based Commodity Planning approach will be utilized to replicate this success**. Using this approach, districts are to be clustered into nine agro-ecological zones and will be supported to maximize value addition in the selected commodities. A value chain has been developed for each selected commodity and used to critically analyze the bottlenecks constraining increased production/productivity and wealth creation. Projects will then be developed to address the identified bottlenecks. In addition, Government will strengthen its presence and service delivery capacity at both the sub-county and parish levels. The sub-county will be the unit of development planning, with the parish as the unit at which farmers will be organized and supported to increase production/productivity, bulk and market agricultural produce and for data-collection. Parishes will be used as the centres for delivery of production, marketing and financial services to farmers. The parish chief will also be the focal person in coordinating supervision of agricultural extension, primary education and health service delivery.

4.6 Development Strategies

4.6.1 Agro-Industrialization

81. **Agro-processing occupies a very important place in the agricultural value chain, creating backward and forward linkages between the farm and the market**. The backward and forward linkages between the agricultural, industrial and service sectors through agro-industrialization will stabilize and increase demand for raw agricultural commodities, increase prices, and stimulate increased production/productivity through increased use of improved inputs, increased agricultural research and reduced postharvest losses.

4.6.2 Fast-Track Oil, Gas and Mineral-Based Industrialization

82. **This plan has prioritized the fast-tracking of interventions aimed at facilitating the production and processing of oil/gas as well as mining, beneficiation and manufacturing** based on seven minerals namely, iron ore, phosphates, copper, marble/limestone, gold, dimension stones, and sand/aggregates. These have been chosen based on whether they exist in large enough quantities to enable commercial exploitation as well as their potential to impact upon the industrialization process. A matrix showing the various uses of these seven and other minerals that Uganda is endowed with is included in this plan as Annex 2. It is these uses that have guided the prioritization of these seven minerals as the launch pad for a mineral based manufacturing program.

4.6.3 Import Replacement/Promotion of Local Manufacturing

83. **Government will adopt an import replacement strategy where suitable to nurture and promote labour-intensive light manufacturing**. Some of the industries proposed to be set up under this strategy include: assembly of motor vehicles and/or electronic products; manufactures of metals e.g. simple spare parts; iron and steel; textile yarn, fabrics, made-up articles; paper, paperboard, and related articles; prefabricated buildings e.g. sanitary, plumbing, fixtures and fittings; furniture and parts thereof; beddings and mattresses; pharmaceuticals; starch; and manufacture of ceramics "tiles and china" kitchen ware.

4.6.4 Export Promotion

84. **An export-oriented strategy is important as a means to increase Uganda's foreign exchange earnings which will play a significant role in financing development projects and repay external debts**. Thus, an export-oriented strategy will seek to increase the value and volume of manufactured food products processed from the agricultural commodities specified above, textiles, cement, steel, soft drinks and processed minerals and oil. Proceeds from the sale of minerals and oil will be spent on the construction of infrastructure to further increase competitiveness as well as the importation of equipment to drive the industrialization process. Government will focus on increasing and sustaining our market share in four key markets, namely EAC & COMESA (to be subsumed under the ACFTA when it becomes operational), the Middle East, European Union and China; where we have the greatest potential.

4.6.5 Harness the Tourism Potential

85. **Government will continue promoting tourism as a major foreign exchange earner and employer, providing an opportunity for many Ugandans to earn a living at the various levels of the tourism value chain**. With diversification and development of the various tourism products, creative marketing, expansion of tourism source markets beyond the traditional ones, and improved infrastructure the country can double or even triple the number of tourist arrivals as well as the revenue generated by the sector creating a lot more jobs in the process. Uganda will be marketed both as a niche tourism 'product' offering an un-paralled/unique tourism experience and as a mass tourism destination. Special products will be designed for the different categories of tourists including: culture and heritage sites,

religious events, education and sports, Meetings, Incentives, Conferences and Events (MICE), specialized health care services, plus nature and wildlife.

4.6.6 Provide a suitable fiscal, monetary and regulatory environment for the private sector to invest

86. **Government will continue to support and strengthen the private sector as the main engine for growth, job creation and increased household income.** Government will continue to address the challenges constraining private sector growth, including slow bureaucratic decision making by the public service, corruption, case backlog in the judiciary, and inadequate access to patient capital. In addition, government will continue to provide an enabling environment for private sector growth through maintaining macroeconomic stability, provision of long-term finance at affordable rates, reduction in the amount of domestic arrears and putting in place mechanisms to ensure these are kept low as well as strengthening the use of PPP arrangements. By so doing, both domestic and foreign investors will be incentivized to increase investment in agro-processing, manufacturing, mineral mining and beneficiation and tourism. Insurance will be leveraged to enhance productivity by deepening the insurance industry to increase risk management.

4.6.7 Increase local content participation

87. **Leverage local content participation in key major infrastructure projects to nurture the private sector**. Starting with Karuma and the new suspended cable bridge in Jinja, government has increased efforts to increase local content participation through local procurement and supply of cement, iron and steel products as well as technical services in the case of the latter. Over the course of NDPIII, government will scale up interventions to increase use of locally procured goods and services through use of preference schemes and investment in supplier development programs. Government will also partner with the private sector to undertake workforce development programs (skilling, training and re-training) to promote employment of local workforce. Increased use of local content will enhance value addition in Uganda's products and exports, increase competency of the national workforce as well as create jobs.

4.6.8 Institutionalize infrastructure maintenance

88. **Infrastructure efficiency and its lifetime is limited due to a number of factors, one of which is the lack of a maintenance culture**. Under this strategy, focus will be on prioritizing regular scheduled maintenance of transport infrastructure to increase lifetime through, for instance, building the capacity of the local construction industry and establishment of local hire pools. The youth will be encouraged to form hire pools and will be given special consideration in the award of contracts. Secondly, and more importantly, climate proofing the already existing transport infrastructure through, for instance, raising bridges and improving drainage systems will be carried out. Adequate provision will be made for operation and maintenance expenditure. In addition, audits of operation and maintenance activities will be strengthened to ensure value for money.

4.6.9 Develop intermodal transport infrastructure to enhance interoperability

89. **Government will continue to improve the country's competitiveness by investing to reduce transport costs and improve transport interconnectivity**. Government will selectively implement a few but strategic interventions in the transport network to further enhance interoperability to harness the exploitation of opportunities, increase exports and open up export opportunities in new markets. Hence, investments in the transport sector will contribute towards lowering the cost and increasing the efficiency of the country's connections to regional and global markets as well as increasing interconnectivity within the country. Special emphasis will be placed on upgrading transport infrastructure around Lake Kyoga to facilitate connections across Lake Kyoga linking Nakasongola, Lango, Teso and Busoga through tarmacking of roads around the lake and introduction of ferry services on the lake. This will open the remote areas around the lake to tourism and trade. In addition, government will prioritize rehabilitation of the meter-gauge railway for bulk transportation of goods within the country; it will also upgrade the urban infrastructure particularly in the greater Kampala metropolitan area to reduce traffic congestion and its cost to the economy and improve rural road infrastructure.

4.6.10 Increase access to stable, reliable and affordable energy

90. **Increasing access to affordable, reliable and stable power is critical to the industrialization process**. The main aim under this strategy will be to lower the cost of power to 5 U.S. cents per unit, increase generation capacity to at least 3500MW and increase access to the national grid to a minimum of 60% of the population. Emphasis will be on extending electricity supply to business and industrial parks, factories and other production centers. A three-pronged approach of increasing power generation and evacuation, upgrading transmission and distribution networks as well as extending coverage will be utilized.

4.6.11 Leverage urbanization as a driver for socio-economic transformation

91. **Government will pursue planned inclusive green cities that create economic opportunities for all, including the urban poor**. Opportunities arising out of urbanization for industrialization and from industrialization for urbanization will be articulated to better leverage urbanization for accelerated industrialization. Industrial policy, spatial plans, and national value chains will factor in ways urban functionality can support productivity of firms. In addition, urban planning will aim to achieve more balanced national urban systems, optimizing the complementary roles of the different cities, both large and small i.e. the national capital, regional cities, and strategic cities as articulated in Vision 2040.

4.6.12 Improve access and quality of social services

92. **A skilled, innovative and healthy labour force is essential for attracting local and foreign investment, which is essential for driving industrialization and sustained acceleration of growth**. To this end, government will focus on improving the quality and relevance of education service delivery in order to bridge the gap between the requirements of industry and the skills taught in the education institutions. Health services will be

restructured to focus more on disease prevention using a multi-sectoral approach as opposed to the current curative focused model. Interventions focused on the ever-increasing burden of non-communicable diseases (NCDs) will be stressed to reduce mortality and impoverishment due to prolonged ill-health plus economic loss due to medical referrals abroad.

4.6.13 Institutionalize human resource planning for the economy

93. **Developing capabilities for forecasting the human resource requirements for the changing structure of the economy to address the situation where unemployment exists side by side with skill gaps in firms is critical**. In that regard, the National Planning Authority is developing a National Human Resource Development Plan that will provide a framework for guiding human resource development at the macro level, while sectors and local governments will do the same for their sector and local government development plans, respectively. This National Development Plan as well as all sector and LG plans will have approved Human Resource Development Plans within the first year of their implementation.

4.6.14 Enhance skills and vocational Development

94. **Government will prioritize skills and vocational development to address unemployment, especially among the youth**. This will be informed by the skills projections in the national and sectoral human resource plans. done through undertaking quick skills mapping with emerging or anticipated job opportunities in the economy. Government will then review the current Skilling Uganda Strategy and align it to the national and sectoral human resources plans and develop a comprehensive strategy to address the gaps in a coherent manner through existing or new vocational and tertiary institutions. Preference will be given to supporting building capacities of the existing vocational and tertiary institutions to start or expand programs that produce graduates with the required skills, while at the same time reducing intakes for courses that no longer address the needs of our economy. For instance, vocational and tertiary institutions will be supported to develop a pool of national expertise in the emerging mining, light manufacturing, oil and gas industries. Overall, all skilling initiatives shall aim at providing Ugandans with Knowledge, Skills and Values for employment, job creation and productivity in the NDPIII growth areas. For instance, vocational and tertiary institutions will be supported to develop a pool of national expertise in the emerging mining, light manufacturing, oil and gas industries.

4.6.15 Promote Science, Technology, Engineering and Innovation as well as ICT

95. **Government will prioritize strengthening of the legal framework around innovation to increase technology adaption and diffusion**. In addition, government will strengthen the framework and mechanisms for guiding and coordinating research, innovation, and development of appropriate technology. Government will place special emphasis on the development of a policy and institutional framework for importation of appropriate technology as significant opportunities for technology importation exist with the shift of

China from production of labour intensive, low technology commodities to advanced technology manufacturing. In particular, special focus will be given to ICT by establishing ICT incubation centers, and increasing internet access and bandwidth will be prioritized. Government will prioritize investments in ICT services to increase coverage as well as usage, down to the household level for increased productivity, especially in agriculture and the informal sector.

4.6.16 Increase access to social protection

96. Government is already implementing programs aimed at addressing the needs of some of the vulnerable populations. However, these programs leave out significant numbers of the vulnerable people. Under this strategy, government will prioritize merging, modification and/or expansion of existing programs to cover more beneficiaries within the existing age cohorts or to include new age cohorts. It is only when existing programs cannot be modified or expanded to meet emerging needs that consideration will be given to designing new ones.

4.6.17 Promote development-oriented mind-set

97. Government will streamline all “mindset change” initiatives currently being implemented under Ministry of Information and National Guidance plus a number of other government agencies e.g. the Ministry of Ethics and Integrity and Kyankwanzi NLI into one coherent, integrated and comprehensive program to increase impact. In addition, the role of faith-based organizations, cultural institutions and families in re-orienting the mindsets of Ugandans to development will be explored. A national guidance strategy to harmonize interventions and communicate progress on development issues as well as increase participatory civic engagement in decision making will be developed and implemented. In the long-term government will review school curricular with the view to increase students’ consciousness on national values, ideology and national defense.

4.6.18 Increase government participation in strategic sectors

98. **Government will intervene in strategic sectors to remove market distortions, lower entry barriers (particularly capital), as well as introduce and enforce policies, regulations and/or incentives to promote private investment**. Beyond the basic role of the state in development (of providing peace and security, ensuring macro-economic stability, and providing a conducive investment climate) the Ugandan state shall proactively act to stimulate agricultural, industrial, technological and scientific development by intervening directly, forming PPPs and/or incentivizing the private sector to invest in strategic sectors to unlock the country’s development potential. Government will make a strategic decision to either:

    (i) invest directly or jointly with the private sector and local communities in certain priority sectors through the Uganda Development Corporation (UDC);

    (ii) use government lending at preferential interest rates to promote private investment in key sectors through Uganda Development Bank (UDB) or other government banks (e.g. Postbank, Pride Micro finance), or;

(iii)provide tax benefits to key private sector players, in line with the local content law, through the Ministry of Finance, Planning and Economic Development to increase investment and production in key strategic industries or sectors.

99. In addition, government will intensify and streamline its efforts in marketing Uganda's goods and services in regional and global exports markets. The Uganda Investment Authority and the Uganda Export Promotion Board will be tasked to work together more effectively to identify, address and/or recommend to the appropriate government agencies challenges inhibiting international competitiveness. Government will also increase ownership of key public infrastructure to reduce profiteering and increase competitiveness. Government will tackle land administration challenges in order to increase land available for productive use and also, increase guidance of ordinary citizens on more productive application of their labor.

4.6.19 Increase Resource Mobilization for Implementation of National Development Programs

100. **Domestic revenue will be the main source of financing for this Plan**. In that regard, government will intensify domestic revenue mobilization in order to increase revenue to GDP ratio from the current 14.6 per cent to at least the sub-Saharan average of 18 per cent. This, government will do through more efficient and effective tax administration, compliance enforcement and tax evasion reduction strategies. Government will ensure to maintain a stable and predictable tax regime over the medium term given the consensus that the country has limited room for introducing new tax measures without overburdening the tax payer. However, government will also intensify efforts to mobilize financing for implementation of government priorities under this plan through use of infrastructure bonds, diaspora remittances, and secondary markets among others.

101. **Government will prioritize development of the secondary market infrastructure**. Secondary markets will be developed to promote more participation of Ugandan citizens in the buying and selling of financial securities in order to support the mobilization of patient capital. The failure of investors to sell and buy securities amongst themselves hinders the development of Uganda's capital markets. One of the means of promoting the development of the secondary market is to conduct all government bond secondary trading on the local stock exchanges and subject to regulation by the Capital Markets Authority.

102. **The pension fund remains a largely under-utilized resource**. The pension sector will be reformed to attract more local players into the industry. In addition, employees will be organized into groups to participate in pension funds of their choice. Whereas remittances from Ugandans abroad have grown significantly over the years, these are used largely for consumption. Government will implement policy measures aimed at redirecting the use of remittances from consumption to development as an additional source of financing by for instance issuing diaspora bonds, enabling diaspora Ugandans to buy treasury bills over the internet and other innovations.

4.6.20 Re-engineer the Public service to promote investment

103. **Government will streamline its operations to cut bureaucratic red tape and speed up clearances for business operations, fight corruption,** as well as introduce and enforce policies, regulations and/or incentives to promote private investment and exports. Government will address issues relating to increased use of technology such as e-extension and marketing in agriculture; popularizing the use of virtual tours and destination management systems in tourism; as well as tele-medicine in health in order to deliver services more efficiently and effectively and in a transparent and accountable manner. Government will also build capacity in all MDAs and LGs to conduct feasibility studies, design and manage programs/projects as well as conduct negotiations e.g. for program/project funding.

104. In addition, Government will work to strengthen legislative and judicial capacity, two of the key institutions needed to develop an internationally competitive business environment. Efforts will be directed at improving the efficiency of the judicial due process and adjudication in terms of the number of court appearances as well as time taken to conclude a case, and streamline judicial operations to reduce case backlog particularly of a commercial nature. Support to the legislature will be aimed at further strengthening research capacity as well as reducing the time needed to debate and pass legislation.

4.6.21 Enhance partnerships with non-state actors for effective service delivery

105. Civil Society interventions and resources are not included in the NDP framework. This is also true for resources used to finance programs that are implemented directly by development partners or MDAs through off-budget financing. Under this strategy, all development programs will be mainstreamed into the plan and included in the national budget to optimize resources for national development. Government will increase coordination of development initiatives by development partners and NGO/CSOs as well as strengthen the partnership with the private sector to ensure all resources are deployed in the implementation of the same set of development priorities.

4.7 National Development Programs

106. Implementation of NDPIII will be based on the following programs:

1. Agro-Industrialization;
2. Mineral-based Industrialization;
3. Petroleum Development;
4. Tourism Development;
5. Water, Climate Change and ENR Management;
6. Private Sector Development;
7. Manufacturing;
8. Digital Transformation;
9. Integrated Transport Infrastructure and Services;
10. Sustainable Energy Development;
11. Sustainable Urban and Housing Development;
12. Human Capital Development;

13. Community Mobilization and Mindset Change;
14. Innovation, Technology Development and Transfer;
15. Regional Development;
16. Governance and Security;
17. Public Sector Transformation; and
18. Development Plan Implementation.

107. These programs incorporate the country's regional and international development commitments as illustrated in Annex 3. Detailed articulation of the programmes is provided in the subsequent chapters.

4.8 NDPIII Core Projects

108. The core projects across the programmes of the plan are presented in Table 4.5.

Table 4.5: NDPIII Core Projects

Programme	Core Projects	Status
Agro-industrialisation	Agriculture Storage and Post-harvest handling Infrastructure	NDPIII Project Idea
	Regional Agricultural Processing and Marketing (cassava processing in Gulu; meat processing in Nakasongora; grains processing in Jinja; cotton processing in Lira; dairy processing in Mbarara; potatoes in Kisoro)	NDPIII Project Idea
	Enhancement of capacities for pests, vectors and diseases management	NDPIII Project Idea
	Markets & Agriculture Improvement Project	Ongoing
	Farm Income Enhancement and Forest Conservation II	Ongoing
Mineral Development	Establishment of steel industry (Muko)	Feasibility
Sustainable Development of Petroleum Resources	Hoima Oil Refinery	Feasibility
	East Africa Crude Oil Pipeline (EACOP)	Feasibility
	Construction of the Gas Pipeline	Concept
	Construction of bulk storage facilities	Feasibility
	Albertine Region Airport (Kabaale international airport-Hoima)	Ongoing
Tourism Development	Development of Source of the Nile	Feasibility
	Tourism Roads (Kabale - Lake Bunyonyi (8.0km); Kisoro - Mgahinga National Park Headquarters (14.0km); Kisoro - Nkuringo - Rubuguri - Muko (54.0km); Rubuguri-Nteko Road (22.0km); Hamurwa-Kerere-Kanungu/Buleme-Buhoma-Butogota-Hamayanja-Ifasha-Ikumba (149.0Km); Ishasha-Katunguru (88.0Km); Karenga - Kapedo - Kaabong (68Km); Kebisoni-Kisizi-Muhanga/Kambuga Road (117km))	Concept
	Mitigating Human-Wildlife Conflict	Profile
Climate Change, Natural Resources, Environment, and Water Management	Solar Powered Mini-Piped Water schemes Project (East, Central, West, and North)	Feasibility
Private Sector Development	Revival of Uganda Commercial Bank	Concept
	Capitalisation of UDB and UDC	Ongoing

Programme	Core Projects	Status
Manufacturing	Industrial Parks Development (Namanve, Bweyogerere, Luzira, Soroti, Moroto, Mbale, Masaka, Jinja, Mbarara, Kasese, Luwero-Nakaseke, Arua, Gulu, Fort-Portal, Kabale, Hoima, Oraba, Onaka)	Concept
Integrated Transport Infrastructure and Services	Kabale Airport (Albertine Region)	Ongoing
	Standard - Gauge Railway	Feasibility
	Kampala-Jinja Express Highway	Feasibility
	Busega - Mpigi Expressway	Ongoing
	Kampala Flyover Construction and Road Upgrading Project	Ongoing
	Buwaya - Kasanje - Mpigi	Feasibility
	Kibuye - Busega Express Highway	Pre-Feasibility
	Kampala - Bombo Express Highway	Feasibility
	Rwenkunye - Apac - Lira	Feasibility
	Bukasa Inland Port	Feasibility
Energy Development	Ayago Hydro Power Plant	Concept
	Industrial Substations Upgrade (Lugogo; Mutundwe; Nkonge; Nkenda; Kawanda; Lira; Opuyo; Tororo; Mbarara North; Masaka West; Kawaala, Kampala North Substations; Luzira, Iganga, Mukono, Namanve Upgrade)	Ongoing
	Expansion and rehabilitation of the following transmission and distribution network	
	(i) Masaka – Mwanza 220kV;	Feasibility
	(ii) Nkenda – Mpondwe - Beni 220kV;	Ongoing
	(iii) Olwiyo – Nimule – Juba 400kV;	Feasibility
	(iv) Karuma – Tororo 400kV;	Ongoing
	(v) Kampala metropolitan transmission system mprovement project	Ongoing
	(vi) Isimba interconnection line	Feasibility
	(vii) Karuma interconnection line	Ongoing
	(viii) Grid Extension in North East , Lira and Buvuma Islands	Ongoing
	(ix) Kabaale-Mirama Transmission Line	Ongoing
	(x) Masaka -Mbarara Transmission lines	Ongoing
	(xi) Ayago-olwiyo	Feasibility
	(xiii) Karamoja 132Kv	
Digital Transformation	IT Shared Platform (GOVNET)	Feasibility
Sustainable Urbanisation and Housing	GKMA High density affordable housing	NDPIII project idea
Human Capital Development	Develop a Center of excellence for cardiovascular care	Feasiblity
	Develop 2 regional oncology centres	Feasibilty
Innovation, Technology Development and Transfer	Development of Incubators, and Technology Parks (Innovation-based Incubation Centres)	Concept
Community Mobilisation and Mindset Change	National Service Scheme	Concept
Development Plan Implementation	Resource Enhancement Accountability Programme (REAP)	Ongoing

109.

PART III: DEVELOPMENT PROGRAMMES

CHAPTER 5: AGRO-INDUSTRIALIZATION

5.1 Introduction

110. **Given the dominance of agriculture as a source of livelihood, Agro-Industrialisation (AGI) offers a great opportunity for Uganda to embark on its long-term aspiration of transitioning into a modern industrial economy**. First, AGI presents an avenue for promoting inclusive and equitable growth. Second, Uganda has a positive trade balance in agro-industrial products. Third, it provides an opportunity to add value to agricultural raw materials in order to promote export expansion of high value products. Fourth, it provides an opportunity for import replacement. Fifth, it provides an opportunity to address the high post-harvest losses, stabilize prices and increase household incomes. Additionally, the backward and forward linkages between agriculture and agro-industries will necessitate that Uganda sustainably transform agro-value chains to ensure sufficient supply for domestic industries to undertake transformative sustainable manufacturing while creating employment for its citizens.

111. **The aspiration of Agenda 2030 (SDG2, and 9), is to end hunger, achieve food security, improve nutrition and promote sustainable agriculture as well as promoting inclusive and sustainable industrialization and foster innovation**. SDG 8 also seeks to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. Similarly, Agenda 2063 (Goal5) aspiration is to have modern agriculture for increased production and productivity. Relatedly, the EAC Vision 2050 seeks to promote value addition through agro-processing. The AfCFTA aims to create a single market for goods and services facilitated by movement of persons in order to deepen the economic integration of the African continent. This is an opportunity for Uganda to exploit its agro-industrialization agenda in order to feed the global value chain. The Uganda Vision 2040 puts emphasis on the establishment of economic lifeline industries including agro-based industries to drive agriculture productivity.

112. **However, there is still high proportion of the population dependant on agriculture** due to: (i) low agricultural production and productivity; (ii) poor storage infrastructure; (iii) poor market access and low competitiveness for products in domestic, regional, continental and international markets; (iv) low value addition; (v) limited access to agricultural financial services and critical inputs; and (vi) poor coordination and inefficient institutions for planning and implementation of agro-industrialization.

113. **The goal of this programme therefore is to increase commercialisation and competitiveness of agricultural production and agro processing.**

114. The key results to be achieved over the next five years are:

    (i) Increase the total export value of processed agricultural commodities; coffee, tea, fish, dairy, meat, and maize (and its products) from USD 1 Billion to USD 4 Billion;

(ii) Reduce the total value of imported cereals and cereal preparations, vegetable fats and oils, and sugar preparations from USD 931.1million to USD 500 million;
(iii) Increase the agricultural sector growth rate from 3.8 percent to 6.0 percent;
(iv) Increase labour productivity in the agro-industrial value chain (value added, USD per worker) from USD 616 to USD 850;
(v) Increase the number of jobs created in agro-industry along the value chain by 500,000;
(vi) Reduction in the percentage of h/holds dependent on subsistence agriculture as a main source of livelihood from 68.9 percent to 55 percent

(vii) Increase the proportion of households that are food secure from 60 percent to 80 percent.

5.2 Situation Analysis

115. **The agricultural sector registered improved growth rates over the last five years averaging 3.4 percent per annum**. Notable improvements were especially observed in the food crops sub-sector (maize, cassava and bananas) that grew at an average of 3.7 per cent. The cash crop sub-sector (coffee, cotton, tea) averaged growth rates of 6.4 percent. The livestock sector was the least performer and grew at 2.1 percent. The fisheries sub-sector recovered from a slump of -2.1 percent in 2017/18/ to grow at 11.3. percent in 2018/19, due to strict enforcement of fishing regulations. However, the agricultural sector growth rate falls short of the 6.0 percent targeted under the Vision 2040 and NDPII.

116. **To foster a sustainable agro-industrialization agenda in Uganda, this programme has selected nine commodities coffee, tea, fisheries, cotton, vegetable oil, beef by-products, maize and dairy because of their impact on exports earnings** (Table 5.1). In addition, fish, maize and dairy have significant benefits for nutrition and food security. Cassava is also prioritized due to the ease with which it can be produced massively, drought resistance, potential for multi-industrial use and food security. Once mature, cassava can be stored up to two years underground, a key factor to mitigate against seasonal effects.

Table 5.1. Uganda's top 10 agricultural products exports by shares of total exports (%), 2018

S/N	Commodity	% share of total exports
1	Coffee	10.5
2	Fish and fish products	5.9
3	Dairy	3.4
4	Horticulture	2.6
5	Tea	2.2
6	Cocoa	1.9
7	Maize	1.7
8	Cotton	1.4
9	Vegetable oil	1.1
10	Bananas	0.2

Source: BOU, UBOS (2019)

117. **Despite a huge market potential for these products, the country's capacity to satisfy the market demand remains inadequate**. This can be attributed to a number of factors which are analysed below following the agricultural value chain:

118. **Agricultural production and productivity is generally low**. Despite government's efforts to extend credit to farmers by providing funds to non-profit associations (SACCOs) as well as provision of financial education, 68.9% of households remained outside the market/money economy. This is largely because while some households do not have access to arable land so as to engage in productive crop and animal husbandry, others lack the skills for maximizing land productivity like proper spacing, planting of high yielding crops, fertilizer use, irrigation, soil and water conservation, water harvesting, timely planting, disease and pest control, crop and animal improvement and management through appropriate breeding and feeding. Also, adoption of improved agricultural technologies remains low.

119. **There is a wide gap in yields between research stations and farmer fields.** Increase in total production is largely attributed to growth in land and labour use in agricultural production than to technical change. There is a wide gap in yields between research stations and farmer fields (Table 5.2). This is more pronounced in dairy, fish and fish products, cassava and maize.

Table 5.2: Comparison of yields on farm versus research stations

Commodity	Average farm yields (tons/ha)	Potential yields as at research stations (tons/ha)
Maize	2.3	8
Coffee (output million bags - 60kg)	1.4	2.5
Tea	1.65	2.05
Fish and fish products	1.5	23.2
Cassava	3.3	20
Dairy (milk in million litres)	1.5	24
Beef	0.15	0.855
Oil palm	18	20
Fruits and vegetables. e.g. tomatoes	45	80

120. In 2017, Fisheries production was 461,000MT and 110,000MT from aquaculture. Beef production was 211,358MT. Tea production was 39,299MT. Coffee production was 302,063 MT. Cassava and Maize production equalled 302,000MT each. Milk production was 2.5 billion litres (2018).

121. **Coffee production and productivity is limited by dominance of small holder farmers using traditional methods, low acreage per farmer, small number of trees per hectare and low yield per tree**. 53 percent of the coffee is produced by small holder farmers using traditional methods. These constitute 67 percent of the total number of coffee farmers. 35

percent is produced by farmers using improved methods. These constitute 28 percent of the total farmers. Commercial farmers produce only 10 percent, constituting 5 percent of the total farmers. Plantations produce only 2 percent. Two thirds of the Robusta coffee farmers harvest less than 0.5kg per tree and for Arabica farmers 0.62kg. About a third of all coffee farmers have less than 200 coffee trees. Coffee farmers grow less than the recommended density of 1100 trees per hectare for Robusta and 1600 for Arabica.

122. **Tea production is constrained by limited research in high yielding varieties.** However, the potential to increase its production is enormous. Production of beef and dairy on the other hand, is constrained by the quality of breeds and the livestock numbers as well as water shortages and scarcity of feeds during drought. Milk production is dominated by small-holder farmers who own over 90% of the national herd. Fish production is mostly affected by over reliance on capture fisheries with limited investment in aquaculture. The deteriorating quality of water sources resulting from aquatic pollution coupled with weak enforcement of regulations has also resulted in decline in fish stocks. Maize production is affected by over reliance on traditional farming practices, use of low yielding varieties, small farm size and limited access to finance.

123. **The agricultural production is weakly supported by services (such as extension, entrepreneurial training, R&D, innovations, regulation of agricultural inputs, and reliable weather information) to sustainably back the agro-industries**. Only 4% of all Ugandan farmers use a package of production enhancing technologies (a combination of fertilisers and improved seeds) and supportive services. In addition, most farmers do not practice farming as a business due to limited entrepreneurial skills and have limited risk mitigation measures such as agriculture insurance and irrigation. Often, agricultural products are not of the right quality and variety. Consequently, production remains low, hindering the sustainable supply of raw materials to agro-industries. Therefore, in addition to strengthening the agricultural extension system from the research stations to the farm, cooperative colleges and colleges of commerce should be engaged to inculcate entrepreneurial skills to the farmers and the communities at large.

124. **Agricultural production is also constrained by limited access to agricultural financial services and critical inputs.** Considering the supply side of development finance, public funding for agro-industry is inadequate. There are various government initiatives meant to support AGI development. However, these initiatives are scattered among different agencies, are uncoordinated and non-transformative. Another important supply of development financing is through the development partners. However, increasingly the support is channelled through projects rather than programmes. Project financing is short term in nature. As such, it cannot be a source of a sustainable AGI agenda. Additionally, financial institutions are focusing on the low risk, high cash flow and well collaterised segment of the value chain i.e. agro-manufacturing, leaving the high-risk agricultural production under-served. This partly affects the capacity to finance investment for raw material production and in turn the linkage between production and agro-industries.

125. **Post-harvest handling and storage of agricultural commodities has generally improved**. For example, community storage facilities, modern grain processing

equipment and cold chain infrastructure for dairy have been developed. However, Uganda still has a shortage of standard and modern storage facilities which leads to use of poor-quality storage and subsequently deterioration in quality of the products. Uganda's post-harvest losses range from 30 to 40 percent for grains and other staples, and 30 to 80 percent for fresh-fruits and vegetables. Cooperative colleges and colleges of commerce should be engaged to enhance the promotion of buffer stocking and marketing.

126. **For agricultural production to increase, farmers should be equipped with skills through modular and hands on training for market-oriented production.** Crop and animal husbandry programmes that are being conducted by BTVET Institutions and especially farm institutes and colleges, albeit on a small scale, should be cascaded to reach more farmers to ensure that they start engaging in sustainable agricultural production for the market. In addition, the capacities of community institutions that are engaged in mechanical and woodwork, welding and metal fabrication and construction of farm structures should be engaged to repair farm implements and also produce the requisite food processing implements like coffee hurling implements, fish driers, seed driers, animal feed mills and fruit processing implements for value addition and enhancement of competitiveness in the market. The BTVET institutions that have substantial acreages of land should be utilised as incubation centres.

127. **There has been mixed progress in agro-processing.** The contribution of agro-processing to total manufacturing has increased from 20.7 percent to 39.3 percent. However, most of the agro-processing industries are operating below installed capacity: Coffee (40percent); Fish (less than 30percent); Dairy (the 9 largest are operating at 57percent of their capacity, with the overall average utilisation of installed capacity being 66percent); Tea at 60percent and Beef (less than 20percent). Most maize mills (46.3 percent) have a capacity of 1-5 tonnes per day but many operate far below the installed capacities with a seasonal dimension. This is mainly due to; insufficient supply of raw materials, poor transport infrastructure and high costs of energy.

128. **Over 95 percent of coffee is exported as raw unprocessed beans**. There is limited value addition at farm level and farmers continue to sell unprocessed coffee leading to lower earnings. This is partly explained by the limited capacity to undertake investment for value addition. Currently coffee value addition entails off farm processing, export grading and marketing with limited roasting and consumption. A large percentage of coffee is exported to re-exporting countries.

129. **While there are over 30 operating tea factories in Uganda (mostly privately owned), they operate below capacity**. Government in partnership with Kigezi highland Ltd completed construction of two tea factories in Kabale and Kisoro. However, most of the tea processing facilities are concentrated in a few areas. Some tea growing areas such as west Nile and central Uganda have no processing facility at all. Uganda produces mainly black tea processed by Cut, Tear and Curl (CTC) factories.

130. **There are 12 fish processing plants in Uganda, mainly undertaking primary processing of fish fillets, minced fish, salted and dried/smoked fish**. However, due to high capital requirements, there is no firm undertaking secondary processing of fish into

fish soluble, fish silage, fish meal fish oils and cutlery fish products. Only one firm, Uganda Fish Skin tannery, processes fish skin into leather for export. Fisheries waste, from which isinglass and pharmaceuticals could be manufactured is wasted.

131. **Progress has been made in domestic production of vegetable oil and its by-products**. This is attributed to increase in raw materials for oil seed production (soya beans and palm), increased investment in the processing industries by the private sector, and extension of credit. However, there is still inadequate access to vegetable oil-processing facilities.

132. **The capacity for dairy processing has improved**. The number of dairy processing plants has increased from 79 with processing capacity of 1.9 million litres in FY 2016 to 102 with processing capacity of 2.7 million litres per day (40% of the total milk produced) in 2018. Surprisingly these processing plants only utilize between 40%-60% of their installed capacity implying a challenge of limited access to domestic and international markets.

133. **Government in 2016 launched one of the largest beef processing plants in Africa, worth an** annual turnover of 10million USD with a processing capacity of about 400 animals in a single shift and a holding for nearly 5000 animals beef processing plant. However, after making its maiden beef export of 50 tonnes to Egypt, the company has been hit by inadequate supply of raw materials. In addition, most of the beef is consumed domestically.

134. **Value addition to cassava in Uganda is low.** Most processors mill cassava into flour and package it for local consumption. However, there is potential for import replacement of starch and ethanol if there is more value addition to cassava. Of all the imported starch and ethanol, 53 percent is for pharmaceutical industries, 32 percent for Paperboard industries, 13.5 percent for food processors and 1 percent for laundry operators.

135. **The maize industry is supported by small and medium-scale millers**. There are 780 maize milling plants in Uganda mainly concentrated in central region (38%), with maize flour being the main product. The other processed maize products for the domestic products include; cornflakes, dog feed and blended flours. While there are EAC harmonized standards for maize industrial products, local industrialists are unable to meet them due to; poor post handling technologies, limited use of quality processing equipment and limited fortification.

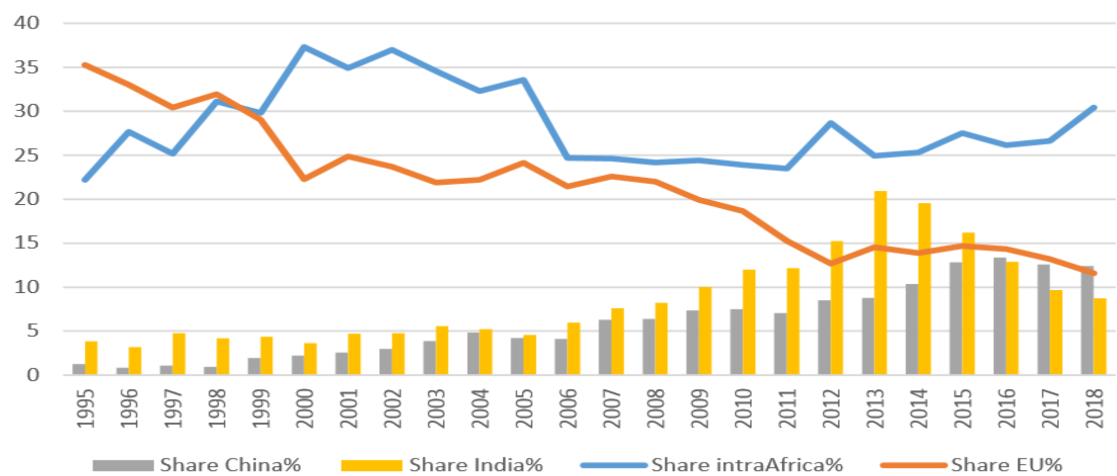
136. **Some progress has been made in marketing and export of agricultural products**. Whereas agricultural finance, improved production methods and technologies can be an effective tool for combating poverty, it cannot create the desired impact if the farmers are not engaged in production for the market. There was development of contractual marketing arrangements which increased capacity of smallholders to access formal grain markets. Intermediate supply chain management models were also developed to link the smallholder farmers to the large-scale processors. For example, the emergence of agricultural cooperatives in value addition and marketing of agricultural commodities such as Bugisu Coffee Cooperative Union (BCCU), Uganda Crane Creameries Cooperative Union (UCCCU). These achievements notwithstanding, ninety percent of the total

agricultural marketing system remains low value i.e. largely an informal system serving lower-income consumers in domestic and international markets. The high value markets which are formal, engage in more processing, stronger quality controls and target higher-income consumers from domestic and export markets are limited to a few commodities (Dairy, Vegetable Oil, Tea).

137. **The share of Uganda's agro-industrial products in the global market is only 0.17 percent competing with countries that are highly integrated in the global value chains**. However, Africa as a regional market has already overtaken the European Union (EU) to become Uganda's most important trading partner, with trade shares increasing from around 22 percent in 1995 to more than 30 percent by 2018. In terms of export values, Uganda now exports over 50 percent of its total exports to Africa, far higher than the shares of other East African countries, highlighting the importance of the AfCFTA to Uganda (Figure 5.1).

138. **Increasing and sustaining Uganda's market share in the current markets (AfCFTA, China, EU, and the Middle East) is crucial for the agro-industrialization agenda**. Uganda stands to be a large beneficiary of the AfCFTA in Eastern Africa, with exports to the rest of Africa increasing by USD 199 million. AfCFTA is the lead market for a majority of agro-industry products including; tea, fisheries, vegetable oil, beef by-products, maize, dairy and Cassava. China is also a crucial market because it is very big and growing. It is suitable for the export of poultry, beef, dairy, fish and its products, hides and skins (wet blue), cow horns, processed coffee, semi-processed cotton, sesame, and cocoa. European Union is a traditional market where contacts exist and products are known. It is a good market for the export of fish, coffee, cocoa, and flowers. It is also a stable high-income market. Our products have been offered access concessions through WTO and the Economic Partnership Agreement. The Middle East is a stable and dependable market for the export of Livestock and its products (beef, goat, dairy and poultry); as well as Fruits and vegetables (pineapples, apple bananas, and avocadoes).

Figure 5.1. Uganda, Intra-African and Trade Partners' Trade Shares, 1995–2017



Source: UNECA, 2019. The AfCFTA – Impact Assessment for Uganda

139. **For Uganda to sustain and increase its market share, challenges of complying with Non-Tariff Measures (NTMs) such as sanitary and phytosanitary measures, international quality certification, reliable supply capacity and inability to adhere to international standards need to be addressed**. Other challenges include: Poor market information systems; Poor market infrastructure in rural and urban areas, including logistics facilities for product marketing and distribution; Poor analysis, negotiation and development of international market opportunities.

140. **For agro-industrialisation to work, there is need for a mechanism to coordinate the value chain players** but also ensure that the services and resources are delivered to facilitate the AGI agenda. AGI cuts across the mandates of several Ministries, Departments and Agencies (MDAs) which are not properly coordinated. Additionally, there are other constraints to AGI like: i) cobweb of policies and Acts (over 25 policies and over 20 Acts exists under MAAIF and MTIC) directly impacting AGI; ii) government's response to institutional failures by creating parallel institutions; iii) inadequate and poorly sequenced financing; iv) Limited policy evaluation that is manifested in the low levels of monitoring and evaluation that in turn impede learning for improvement; and v) the multiplicity of weakly coordinated and inadequately developed support services, including; patient capital (or finance), business infrastructure, land, insurance, and Research and Development (R&D).

5.3 Objectives

141. In order to address the above constraints, the objectives of this programme are to:

1) Increase agricultural production and productivity;
2) Improve post-harvest handling and storage, agro-processing and value addition;
3) Increase market access and competitiveness of agricultural products in domestic and international markets;
4) Increase the mobilization, access and utilization of agricultural finance;
5) Strengthen the institutional capacities for the delivery of agro-industrialization.

142. Achievement of these objectives will be pursued through prioritized interventions along the agricultural value chain in the seven major export and income generation commodities as well as the four food security commodities (Map 5.1). These commodities have been chosen using the area based agricultural planning approach to ensure all agro-ecological zones are covered (Map 5.2).

5.3.1 Interventions

143. In order to achieve the above objectives, NDPIII will prioritise the following interventions under this programme:

Table 5.3. **Agro-industrialization Program Interventions and Respective Actors**

Interventions	Actors
Objective 1: Increase production and productivity of agro-enterprises	

Interventions	Actors
1) Strengthen agricultural research and technology development: a. Invest in new and rehabilitate old infrastructure for agriculture research including laboratories, offices, technology demonstration and training centers, etc. b. Undertake strategic recruitment and training agricultural research staff c. Strengthen research standards and quality assurance through formulation of regulations and enforcement. d. Establish technology demonstration and multiplication centers at all the ZARDIs and BTVET institutions engaged in agroindustry programs for technology dissemination and commercialization. e. Establish and strengthen linkages between agricultural research institutions, BTVET institutions engaged in agro-industry and agro-industry enterprises. f. Upscale research on biofortification and the multiplication of nutrient dense food staples.	MAAIF, NARO, Universities, Academic and vocational institutions, Professional bodies, International research organizations, CSOs, Public Research organizations
2) Strengthen the agricultural extension system a. Recruit and facilitate agricultural extension workers up to parish level. b. Develop and operationalize an ICT-enabled agricultural extension supervision system. c. Scale-up innovative extension models such as nucleus farmers in all agro-ecological zones. d. Incorporate BTVET institutions into the agricultural extension system to ensure that what is taught in these institutions is adopted and utilised by farmers. BTVET institutions with large acreages of land to be used as demonstration centres. e. Strengthen the research-extension-farmer linkages to increase uptake of new technologies.	MAAIF, NARO, MoICT&NG, MoLG, LGs, Extension service providers, Private sector companies, MDAs, NGOs
3) Strengthen the agricultural inputs markets and distribution systems to adhere to quality standards and grades a. Setup and equip farm service centers within the public service e-service centers for bulk input procurement, storage and distribution. b. Strengthen inspection, certification and regulation of inputs c. Scale up the e-voucher model of inputs distribution d. Establish and equip 9 regional mechanization centers to increase uptake of agricultural mechanization and labour-saving technologies e. Enforce pre-export verification for all agricultural inputs at source of origin.	MAAIF, NAADS, OWC, UNBS
4) Increase access and use of water for agricultural production a. Complete the irrigation schemes under construction/rehabilitation including; Doho Phase II, Mubuku Phase II, Wadelai, Tochi, and Olweny b. Construct new irrigation schemes; Ngenge, Acomai, Atari, Amagoro, Nabigaga, Rwimi, Nyimur, Musambya, Kibimba, Kabuyanda, Matanda, Igogero, Angololo, Namatala, Namulu, Sipi, Unyama, Lumbuye, Palyec, Porongo, Lopei and Imyepi. c. Develop solar powered small-scale irrigation systems for small holder farmers outside conventional irrigation schemes. d. Develop infrastructure and services for bulk water storage and transfer including water abstraction systems, transmission mains, water pumping systems, storage tanks, water distribution networks.	MAAIF & MWE, MEMD, Farmers, Cooperatives and associations, UIA, Private Sector, MTIC, MoFPED, UMFSC, BOU
5) Increase access to and use of agricultural mechanisation a. Expand and equip regional agricultural mechanisation and service centers in the 9 agroecological zones. b. Establish agricultural mechanisation manufacturing plants. c. Establish appropriate public and private financing options for agricultural mechanisation.	MAAIF, MTIC, Universities, private sector, vocational institutions
6) Increase access and use of digital technologies in agroindustry	MAAIF, MoICT, NITA-U, UCC
7) Improve land tenure systems that promote agriculture investments a. Increase the number of farmers with titled land to ensure land tenure security	MAAIF, MLHUD, ULC, NARO, NAGRC

Interventions	Actors
b. Promote the policy of non-fragmentation of Agricultural land among family members in all agro-ecological zones **c.** Secure and efficiently use public agriculture farmlands and ranches	
8) Strengthen farmer organizations and cooperatives a. Sensitize farmers on the benefits of cooperating. b. Support up-coming farmer groups and cooperatives to effectively manage themselves. c. Engage cooperative colleges and colleges of commerce to inculcate entrepreneurial skills to the farmers and farmers groups.	MAAIF, MTIC, Farmers, Cooperatives and associations
9) Strengthen systems for management of pests, vectors and diseases a. Develop and equip infrastructure and facilities for disease diagnosis and control. b. Develop human capacity for management of pests, vectors and diseases. c. Invest in agricultural drugs manufacture and distribution.	MAAIF, MOH
10) Promote sustainable land and environment management practices a. Develop land and soil conservation practices in the prioritized commodities b. Introduce and upscale Agro-forestry	MAAIF, NFA
11) Improve skills and competencies of agricultural labor force at technical and managerial levels. a. Strengthen training and skilling centers for new skills in agroindustry. b. Equip (with industrial training machines and tools), adequately fund and sufficiently staff (with a focus on academic staff) BTVET institutions engaged in agro-industry to implement agro-industrialization program c. Review the agricultural education curriculum to suit the agroindustry skill needs and focus other areas beyond agronomy, animal science and extension. d. Increase decision making authority of BTVET institutions to increase relevance of programmes conducted by these institutions for the geographical areas they operate. e. Strengthen the capacity of technical and vocational institutions for training agricultural mechanics and technicians.	MAAIF, MoES, MTIC MAAIF, MoES, MTIC
12) Strengthen the capacity of Uganda National Metrological Authority with staff and logistics to collect data on weather for crop weather index insurance up to sub-county level	NMA, MAAIF, MoES
Objective 2: Improve post-harvest handling, storage of agricultural products	
1) Establish post-harvest handling, storage and processing infrastructure including silos, dryers, warehouses, and cold rooms of various scale and capacities at subcounty, district and zonal levels.	MAAIF, MTIC, UWRSA, NAADS/OWC, Private sector
2) Regional post-harvest handling, storage and value addition facilities will be established in key strategic locations; grain in Jinja; Cassava in Gulu; Dairy in Mbarara; Meat in Nakasongola; fresh fruits in Soroti; vegetable oil in Kalangala; cotton in Lira; beverages in Fort Portal and Fish in Mukono.	MAAIF, MTIC, UWRSA, NAADS/OWC, Private sector
3) Improve the transportation and logistics infrastructure for priority commodities, like refrigerated trucks and cold rooms.	MAAIF, MTIC, UWRSA, NAADS, OWC, MWT, Private Sctor
Objective 3: Increase agro-processing of the selected products	
1) Establish fully serviced agro-industrial parks/export processing zones to stimulate and expand agro-processing.	UIA, FZA, MAAIF, MTIC, Private Sector
2) Establish a strategic mechanism for importation of agro-processing technology a. Establish a scholarship and apprenticeship programme in strategic agro-industries	MAAIF, MoES, MTIC, MDAs

Interventions	Actors
b. Establish an exchange programme for practitioners in the agro-industry value chain with countries that have appropriate agro-processing technologies c. Amend the investment law to enable foreign and local investment partnership	MAAIF, MoES, MTIC MAAIF, Parliament, LRC, UIA, MOFPED
3) Establish new and expand existing agro-industries for processing of key agricultural commodities a. Complete the Uganda Crane Creameries Cooperative Union in Mbarara with a capacity of 500,000 liters per day b. Complete Kayonza, Mabale and Zombo tea factories c. Establish 2 Starch and 3 ethanol processing factories from cassava in Gulu, Tororo and Lira d. Establish at least two soluble coffee plants and 20 coffee washing stations in central and eastern Uganda e. Establish five new and expand the existing 2 spinning and textile mills f. Establish 10 new garment making factories the cities g. Establish 2 new vegetable oil mills in Lira and Kiryandongo and expand the vegetable oil refinery in Jinja h. Establish 5 more fruit factories including; Masaka, Arua, Kanungu, and Bundibugyo i. Establish meat processing factories in Nakasongola and Mbarara j. Establish fish processing factories in Mukono, Jinja, Kamuli and Serere k. Complete Atiak Sugar factory and construct a farmer-based sugar factory in Busoga l. Enforce micronutrient industrial food fortification of the already identified food vehicles.	MAAIF, DDA, MTIC, UDC, NAADS, PSFU, OWC, UCDA, CDO, MTIC, MoFPED, UDC, UDB, Private sector
4) Provide affordable, adequate and reliable electricity in the various production zones of the country	UEDCL, ERA
5) Construct and regularly maintain community access and feeder roads for market access	MWT, MAAIF
6) Improve skills and competencies of agricultural labor force at technical and managerial levels in post-harvest handling, storage and value addition	MoES, MAAF, MTIC
Objective 3: Increase market access and competitiveness of agro-industry products	
1) Strengthen enforcement and adherence to product quality requirements including; food safety, social and environmental standards, grades, etc. a. Enforce product certification; b. Train farmers and manufacturers on sanitary and phytosanitary standards c. Renovate, build and adequately equip certification laboratory facilities in various strategic locations; d. Regulate cross border informal trade in agro-products.	UNBS, MAAIF, MTIC
2) Digitalize acquisition and distribution of agricultural market information	MAAIF, MICT, MTIC
3) Improve agricultural market infrastructure in rural and urban areas a. Develop infrastructure and facilities for rural and urban agricultural markets at district and community levels to meet quality standards. Develop urban agricultural markets in all districts b. Revitalize the warehouse receipt system; c. Revitalize the commodity exchange system.	MAAIF, MoLG, MTIC, UWRSA, UCE

Interventions	Actors
4) Improve transportation and logistics facilities for effective product marketing and distribution a. Provide incentives for the acquisition of refrigerated trucks and warehouses at boarder points and landing sites b. Complete the rehabilitation of the meter gauge to facilitate connectivity of agro-industries to markets	MAAIF, MTIC, MoWT, URC
5) Strengthen capacities of public institutions in analysis, negotiation and development of international market opportunities particularly for the selected commodities a. Facilitate Uganda's diplomatic missions to promote Ugandan products abroad	UEPB, MAAIF, MoFA
Objective 4: Increase the mobilization, provision and utilization of Agricultural Finance	
1) Finalize and implement the Agricultural Finance Policy	MAAIF, MOFPED
2) Develop and implement an Agriculture Insurance Policy	MAAIF, MOFPED, UIRA
3) Review tax levies and other incentives on agricultural insurance products to encourage uptake by farmers.	MOFPED, MAAIF UIRA
4) Increase the pool of funds available for agricultural lending	MOFPED, MAAIF
5) Revise the Agricultural credit Facility (ACF) to fund all levels of the Agriculture value chains	MAAIF, BOU, MOFPED
6) Provide incentives to financial institutions to increase agricultural lending	MAAIF, BOU, MOFPED
7) Facilitate formation of farmers groups and cooperatives for savings mobilization	MAAIF, MTIC
8) Establish an agricultural commodity price stabilization fund for commodities that are vulnerable to high price fluctuations. These include grains, cotton and dairy. a. Strengthen the warehouse receipt system and Uganda Commodities exchange b. Support Uganda securities exchange (USE) to complete the development of a commodity segment to trade commodities in addition to equities and bonds	MOFPED, MAAIF, MTIC UWRSA, UCE, MAAIF USE, MTIC, MOFPED
9) Develop concessional long-term financing for agricultural infrastructure and capital investments	UDB, MOFPED, UIA, UDC
Objective 5: Strengthen institutional coordination for improved service delivery	
10) Strengthen linkages between public and private sector in agro-industry a. Strengthen public private partnership models in agro-industrialization	MAAIF, MOFPED, MTIC, PSFU
11) Strengthen coordination of public institutions in design and implementation of policies.	MAAIF, OPM, NPA

5.3.2 Implementation Reforms

144. The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Develop and implement service and service delivery standards.
2) Incorporate BTVET institutions (engaged in agroindustry) into the agricultural extension system to ensure that what is taught in these institutions is adopted and utilised by farmers.
3) Increase decision making autonomy of BTVET institutions to increase relevance of programmes conducted by these institutions for the geographical areas they operate in.

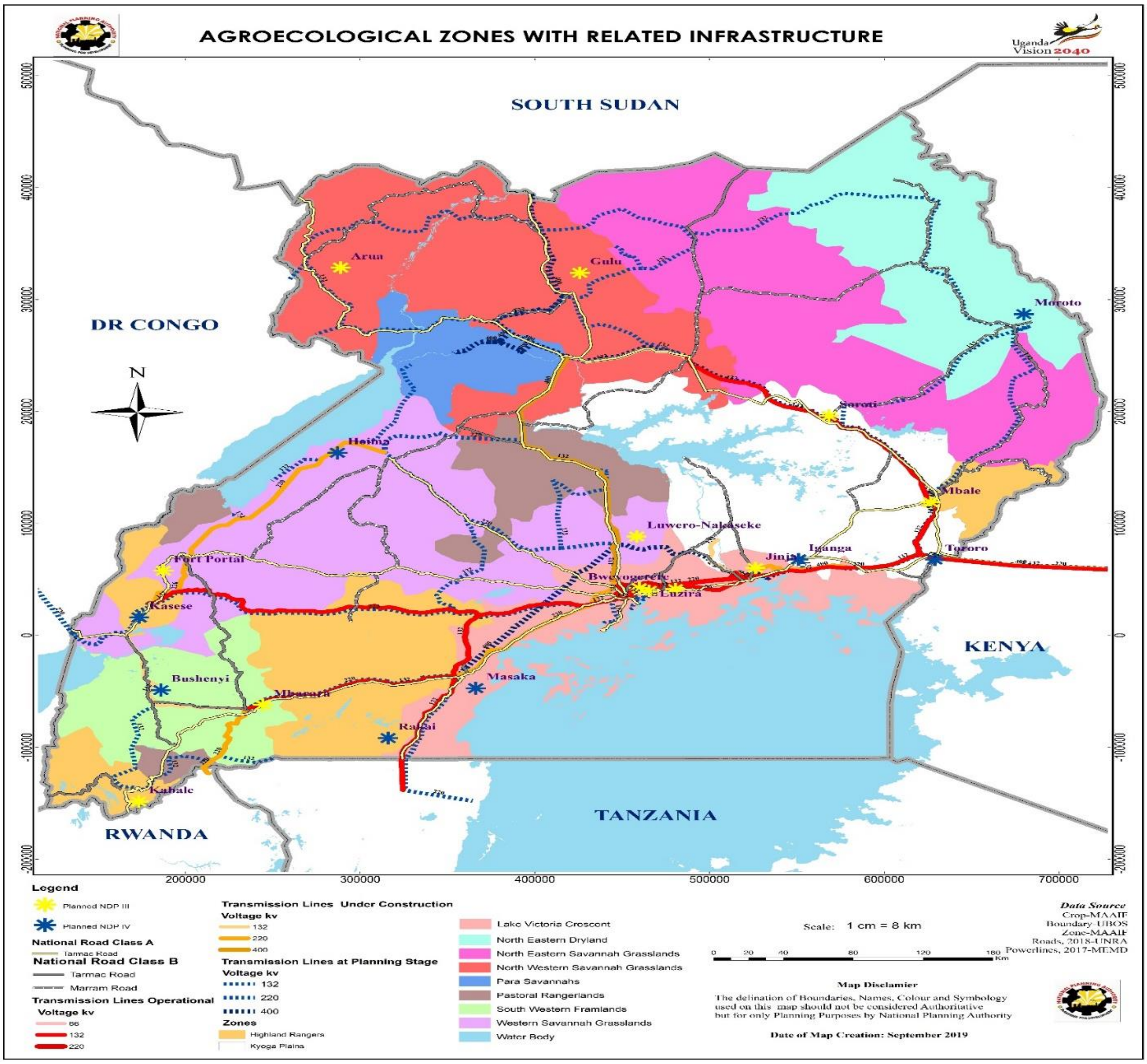
4) Promote joint planning and implementation of projects and other interventions in agro-industrialization.

5) Establish the Agro-industrialization Programme Technical Committee to lead and coordinate the implementation of the program.

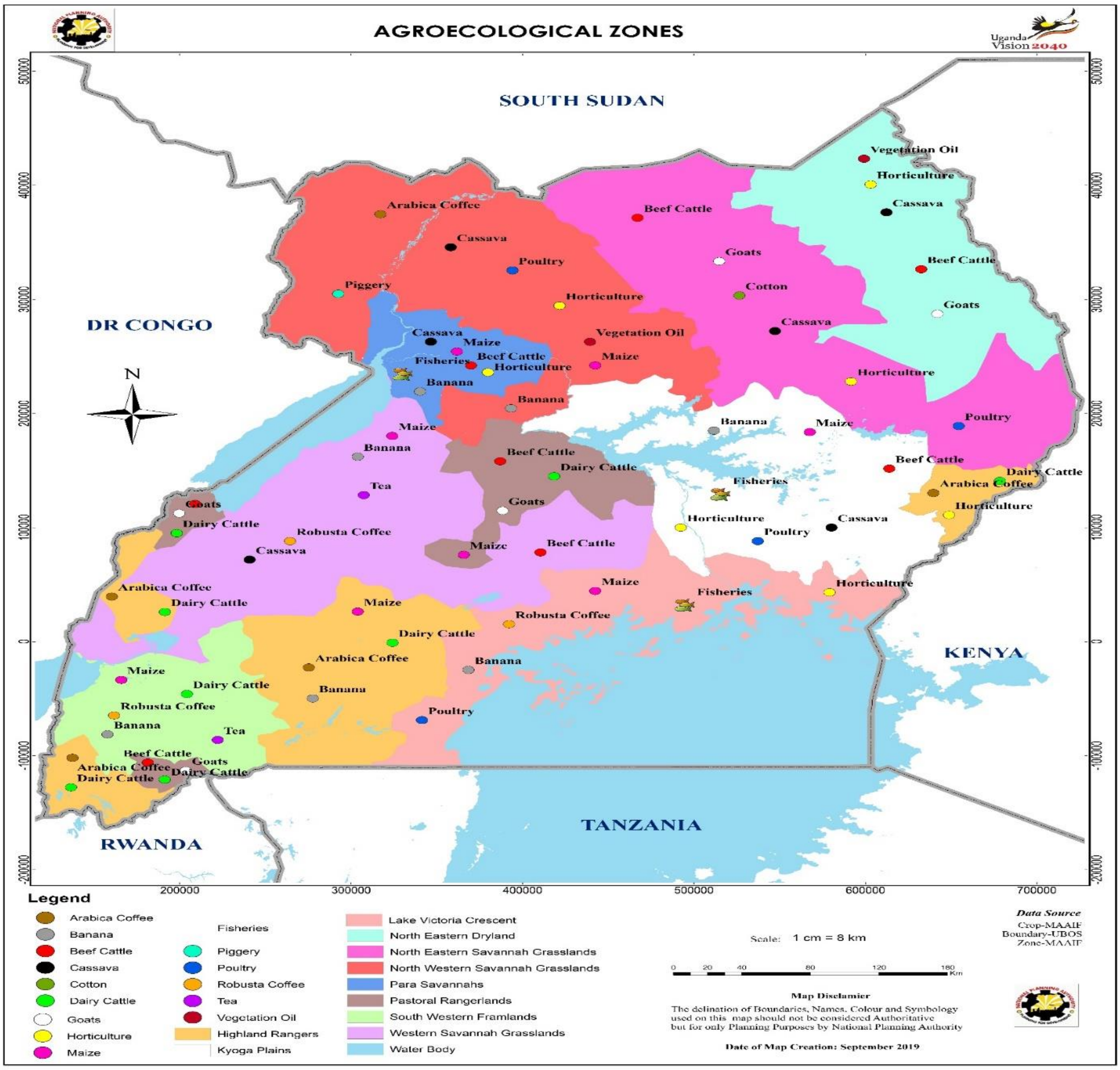
6) Revitalize the warehouse receipt system, and the commodity exchange system

7) Operationalize the parish model. Under this model, farmers will be organized and supported to increase production/productivity, bulk and market agricultural produce and for data-collection. Parishes will be used as the centres for delivery of production, marketing and financial services to farmers.

Map 5.1. Mapping of selected agricultural processing and supporting infrastructure



Map 5.2. Mapping of selected agricultural commodities to Agro-ecological Zones



5.3.3 Programme Human Resource Requirements

145. The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in Table 5.4.

Table 5.4: Qualifications and Skills Gaps for Agro Industrialisation Program

Qualifications and Skills	Status	Estimated 5-Years Gap
Agribusiness Operations specialists		230
Agribusiness specialists		514
Agri-chemists		250
Agricultural and Food Products Processing specialists		2,341
Agricultural Business specialists		465
Agricultural Business Technology specialists		139
Agricultural Communications specialists		865

Qualifications and Skills	Status	Estimated 5-Years Gap
Agricultural Economists		457
Agricultural Engineers		228
Agricultural Entomology specialists		318
Agricultural Equipment Technology specialists		480
Agricultural Extension Education specialists		(178)
Agricultural Lawyer		250
Agricultural Mechanization specialists		2,683
Agricultural Power Machinery specialists		245
Agricultural Production specialists		(986)
Agricultural Supplies specialists		456
Agricultural trade specialists		897
Agriculture Biotechnologists		564
Agriculture Education Services specialists		345
Agriculture Microbiology Specialists		678
Agronomists		(127)
Agronomy and Crop Science specialists		(468)
Animal Breeding specialists		789
Animal Geneticist		654
Animal Health specialists		356
Animal Husbandry and Dairying specialists		350
Animal Husbandry specialists		679
Animal Nutrition specialists		345
Animal Training specialists		184
Applied Human Nutrition specialists		398
Aquaculture specialists		494
Biochemists		567
Bioinformatics Scientist		908
Crop Physiologists		150
Crop Production specialists		(980)
Crop specialists		(568)
Dairy Husbandry and Production specialists		(476)
Dairy Science specialists		980
Disaster Risk Management		973
Environment and Natural Resources Management specialists		459
Environmental Engineers		540
Environmental Impact Assessment specialists		456
Farm and Ranch Management specialists		768
Floristry Operations and Management specialists		897
Food microbiologists		678
Food researchers		546
Food Science specialists/ Food Scientists		654
Food Technology and Processing specialists		564
Geographical Science specialists		720
Greenhouse Management specialists		324
Horticultural Science specialists		564
Horticultural Services specialists		675
Horticultural Therapists		500
Hydroponics		350
Integrated Watershed Management specialists		234
International Agriculture specialists		654
Land Use and Regional Development Planning specialists		786
Landscaping specialists		567
Livestock Management specialists		875
Organic Agriculture specialists		198
Ornamental Horticulture specialists		633
Plant breeding specialists		836
Plant geneticists/ Agriculture Genetics		546

Qualifications and Skills	Status	Estimated 5-Years Gap
Plant Nursery Management specialists		645
Plant Protection and Pest Management specialists		536
Plant Sciences specialists		(230)
Poultry Science specialists		647
Range Science specialists		474
Soil Chemistry and Physics specialists		120
Soil Science specialists		546
Soil surveyors		1,940
Taxidermy specialists		463
Turf Management specialists		645
Weed scientists		987

Key for the Table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 6: MINERAL DEVELOPMENT

6.1 Introduction

146. **Mineral exploitation is critical for the industrialization process**. In addition to their intrinsic, practical value as part of a manufactured product, minerals also have a significant general value to an economy from both a financial and an employment standpoint. Globally the demand for minerals is also important and is increasing. Investing in mineral development will lower the cost of production and boost the supply of locally manufactured products like cement, iron and steel, and fertilizers.

147. **The aspiration of Agenda 2030 and 2063 is to achieve the sustainable management and efficient use of natural resources by 2030** (SDG 15). The EAC Vision 2050 states that while the exploitation of resource destination can be built on extraction of raw materials, greater benefits can flow from a natural resource management where resources such as minerals are processed locally. Additionally, the Uganda Vision 2040 aims at promoting local beneficiation through value addition on the minerals.

148. **However, there is limited minerals exploitation and value addition** due to: (i) rudimentary mining methods and informality in the mining sector; (ii) inadequate human and institutional capacity to carry out exploration, quantification and characterization activities; (iii) inadequate supporting physical and R&D infrastructure; and (iv) Limited investment in industries that utilize available minerals.

149. **The goal of the programme is therefore, to increase the exploitation and value addition to selected resources for job rich industrialisation**.

150. The key results to be achieved over the next five years are:

(i) Reduce the value of imported Iron and Steel from USD 370 million to USD 96 million;
(ii) Reduce the volume and value of imported inorganic fertilizers by 75 percent from 75,000 tonnes and USD 30 million to 18,750 tonnes and USD 7.5 million, respectively;
(iii) Increase volume and value of refined Gold exports from USD 450 million by 75%;
(iv) Increase volume of copper produced from 0 to 2, 000 metric tonnes;
(v) Increase the number of trained and skilled Geoscientists from 108 to 200;
(vi) Increase the value of investment into the exploration and processing of the selected minerals from USD0.8 billion to USD1.3 billion;
(vii) Increase contribution of processed minerals to total manufactured exports from 5 percent to 9 percent;
(viii) Increase the number of jobs created by the program by 10% annually.

6.2 Situation Analysis

151. **Over USD 13 billion is spent annually on importation of mineral-based products** (annex 1), which can be produced from locally available minerals. Progress has been made in increasing the total production capacity of cement from 2.3 million metric tonnes in 2015 to 6.8 million metric tonnes in 2018. This has resulted into reduction in cement prices from

about USD 12 at its peak to the current price of USD 7 per 50 kg bag. This is, however, still high compared to potential import sources like China where it costs USD 4.

152. **An organo-phosphate fertilizer processing plant has been constructed in Tororo with an annual capacity of 50,000 tonnes**. Local production of fertilizers will lower costs, potentially increase fertilizer utilization from the current one (1.5) kg of nutrient per hectare per year compared to 32 Kg/ha in Kenya, 29 kg/ha in Rwanda, and 6kg/ha4 Tanzania and ultimately benefit agro-industrialization.

153. **Progress has been made towards the production of sponge iron, with DongSong Group and Tembo Steel Ltd putting up 500,000 and 72,000 tonne capacity sponge iron plants in Tororo and Iganga,** respectively. Once completed, these two plants will facilitate the manufacture of iron and steel products from the available iron ore deposits and therefore reduce the country's import bill for steel products currently valued at USD350 million and increase exports to EAC states none of which processes iron ore to steel.

154. **Airborne geophysical surveys have been undertaken across the country at high resolutions which has led to discoveries of 18 new mineral targets**. Streamlining the regulatory framework for mineral development has been undertaken; The Mining and Minerals Policy of Uganda was reviewed in 2018, the review and gazetting of the Mining Regulations in 2019 to facilitate e-Governance of mineral resources, and the enactment of the International Conference on the Great Lakes Region Act, 2017. These provide a framework for mineral certification to combat illegal exploitation.

155. **Despite the successes registered in this industry, there are still some challenges that have to be addressed to realize the aspirations of our vision 2040**. There are unexplored and unquantified mineral resources. The airborne geophysical survey of Karamoja, which was a priority is still pending. The discoveries which require promotion and development include: Iron ore reserves, which stand at about 350 million tonnes of confirmed reserve with a resource base of over 1 billion tonnes inferred; Over 1 billion tonnes of marble in Karamoja; 12 million ounces of gold at Wagagai in Busia; 1.7 billion tonnes of graphite of graphite in Orom in Kitgum; 300 million tons of proven reserves of Rare Earth Elements (REE) and an additional 700 million tons of indicated reserves in Makuutu - Buwaaya; estimated 3 billion tons of kaolin and bentonite in Kaiso Tonya; among others. Some of the minerals available in Uganda are yet to be quantified (Map 6.1).

156. **The existent land tenure systems warrant adequate and amicable compensation of the land owners before mining or establishing any developments on the land**. License holders have to buy surface rights from either the landlords or tenants, and in some instances both parties, which makes the investment costs very high. Furthermore, the land prices are often inflated once owners or tenants get to know certain minerals exist below the ground. There is need to harmonise the existing laws and regulations.

157. **Mineral development is also hampered by high costs for exploration and quantification** given the unavailability of advanced testing, equipment and state-of-the-art laboratory services; inadequate human resources, infrastructure and a regulatory framework to facilitate exploration and quantification. Although a laboratory has been

established and stocked with some equipment, more equipment needs to be acquired and more focus needs to be put on establishing ISO Accredited state-of-the-art laboratory that can ascertain the quality of minerals and inform their appropriate applications. Thus, reviewing and enacting existent laws and regulations (Mining Act 2003, Industrial Licensing Act 1969, Competition Bill, Legal and Industrial Metrology Bills) will highly contribute to regularization and compliance of the miners.

158. **In regard to Mining/Extraction, about 80% of the subsector is dominated by small miners**, using obsolete methods of mining due to lack of capital to invest in the requisite equipment to carryout activities on a large scale. Such mining methods affect miners through exposure to hazardous chemicals like mercury and limits the recovery amount of the fine minerals. The informality of the sector further limits government support and participation in the sector. In addition, there is **inadequate human resources especially in the areas of mines inspection and monitoring**. Other challenges include: inadequate supporting infrastructure to facilitate mining and value addition; high capital costs for mining operations, inadequate legal and regulatory framework, difficulty in acquiring land for mining, negative social and environmental impacts and inadequate monitoring and inspection of mining operations.

159. **Regarding beneficiation and processing, the challenges faced include: Inadequate legal and regulatory framework; Limited investment due to high capital requirement** to establish industries that can beneficiate and process minerals; inadequate and inconsistent supply of raw materials; high cost of production due to high energy rates coupled with high transportation costs for minerals where industries are not built close to mining areas; inadequate infrastructure (energy, railway, roads, etc) due to most of the minerals are in remote regions and thus the mining areas are hard to reach; inadequate skilled human resource like geologists, geoscientists, to processing engineers; and Limited access to appropriate and clean technology.

160. **Regarding Trade and Marketing, there is limited involvement of private sector due to unclear trade and marketing structures and existence of cheap and substandard products** through unfair trade practices Mineral related products that could be produced locally are imported due to lack of processing, refining and beneficiating centres in Uganda. This denies the country the revenue and employment that could be registered from such developments. Further to this, the imported products are usually fake and sub-standard which makes Uganda look like a damping site. Some of these products include gold coated jewellery, tiles, glasses among others. Other problems include inadequate quality assurance infrastructure and standards due to lack of state-of-the-art geoscience laboratories; samples of the minerals are flown out of the country for testing resulting in time wasting and increasing the cost of production. In addition, some standards in the minerals industry are not yet developed which leaves a gap against which their quality is meant to be measured, thus giving room for fake and counterfeit products on the market. Price fluctuation also affects trade in minerals due to price volatility of minerals and mineral related products, only risk takers can invest in this industry due to its associated risks. Trade and marketing of minerals and mineral products have not been well structured

and regulated. There has been no strategy or enabler to assess and facilitate good mineral transactions.

6.3 Objectives

161. In order to address the above constraints, the objectives of this programme are to:

1) Increase exploration and quantification of priority mineral resources across the country;
2) Increase adoption and use of appropriate and affordable technology along the value chain;
3) Strengthen the legal and regulatory framework as well as the human and institutional capacity;
4) Increase investment in mining and value addition
5) Expand mineral based processing and marketing.

6.3.1 Interventions

162. In order to achieve the above objectives, NDPIII will prioritize the following interventions

Table 6.1 Mineral Development Interventions and Respective Actors

Interventions	Actors
Objective 1: Explore and quantify priority mineral resources across the country	
1. Establish and equip a dedicated exploration unit, with access to functional laboratories	MEMD, MFPED, MoPS, DPs
2. Undertake a detailed exploration and quantification of minerals in the country	MEMD, MFPED, Private Sector, DPs
3. Establish a mineral classification system	MEMD, DPs
4. Undertake feasibility studies in priority mineral value chains to guide investment	MEMD, MTIC, MFPED, NEMA, NPA, Academia, DPs
Objective 2: Increase adoption and use of appropriate and affordable technology along the value chain	
1. Organize, formalize and regulate the artisanal and small-scale miners. This will increase investment in the sector, increase adoption of better technologies, as well as increase revenue generated.	MEMD, MTIC, LGs, CSOs, DPs
1. Provide incentives for acquisition of appropriate and clean technology	MEMD, MFPED, UIA, URA
2. Promote research and development;	MEMD, MSTI, UIRI, MoES, UNCST, NCHE, Academia, DPs
3. Provide training and extension services to ease the adoption of the acquired technology;	MEMD, MTIC, LGs, BTVET, NCHE, Academia, CSOs, DPs
Objective 3: Strengthen the legal and regulatory framework as well as the human and institutional capacity	
1. Review, enact and gazette existent laws and regulations (Mining Act 2003, Industrial Licensing Act 1969, Competition Bill, Legal and Industrial Metrology Bills)	MEMD, MTIC, MoJCA, Parliament, Private Sector, CSOs
2. Streamline administrative functions of licensing, inspection and monitoring of compliance;	MEMD, MoPS, LGs
3. Develop and implement training and apprenticeship programmes;	MEMD, MTIC, MoES, MGLSD, UMA, USSIA,

Interventions	Actors
	DIT, PSFU, CSOs, DPs, Academic Institutions
4. Incentivize private sector to offer industrial training and apprenticeship opportunities;	MEMD, MFPED, UMA, UCMP, Private Sector, DPs
5. Enact a law regulating geo-scientists and its associated professionals;	MEMD, MJCA, Parliament, Cabinet Secretariat
6. Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement	MEMD, MTIC, MoWE, NEMA, LGs, MoIA, URA, UNBS, UPF, UNCE
7. Strengthen monitoring and inspection of mining operations to minimize negative social and environmental impacts	MEMD, MoPS, LGs
8. Enact a law regulating geoscientists and associated professionals as well as set up a professional registration body for geoscientists in Uganda;	MEMD
9. Require mining companies to enter into Community Development Agreements (CDAs) with mining host communities	MEMD
10. Provide a framework for gender mainstreaming, equity and human rights and eradication of child labour in the mining industry	MEMD, MoJCA, MoGLSD, LGs, Development Partners, Parliament,
11. Domesticate appropriate regional and international treaties, conventions, agreements, protocols which support good governance in the mining industry;	MEMD
12. Establish and strengthen earthquake, landslides and other geohazard monitoring systems;	OPM, MEMD
13. Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions;	MEMD
Objective 4: Increase investment in mining and value addition	
1. Implement strategies aimed at increasing local content in public procurement, particularly in the major upcoming projects like highways connecting Kampala to the neighbouring cities, Ayago hydro-power generation plant, and regional market like South Sudan, Democratic Republic of Congo and Rwanda.	MEMD, MTIC, MFPED, LGs, UIA
2. Establish and equip state-of-the-art mineral testing laboratories;	MEMD, MFPED, DPs
3. Extend transport, energy, water and ICT infrastructure to mining areas and mineral processing facilities/industries;	MEMD, MFPED, DPs
4. Establish research and development infrastructure;	MEMD, MoSTI, MFPED, MTIC, MoES, UNCST, NCHE, Academia, UIRI, DPs, Private Sector, UMA
5. Increase public investment in priority mineral processing;	MEMD, MFPED, MTIC, UDC, UDB
6. Undertake PPPs to invest in mineral value addition;	MEMD, MFPED, MoJCA, UDC, MTIC, UIA, Private Sector, Financial Institutions
7. Increase levels of production of selected minerals to ensure adequate and consistent supply of raw materials;	MEMD
8. High capital costs for mining operations through UDB, UDC, tax incentives	MEMD, UDC, MoFPED

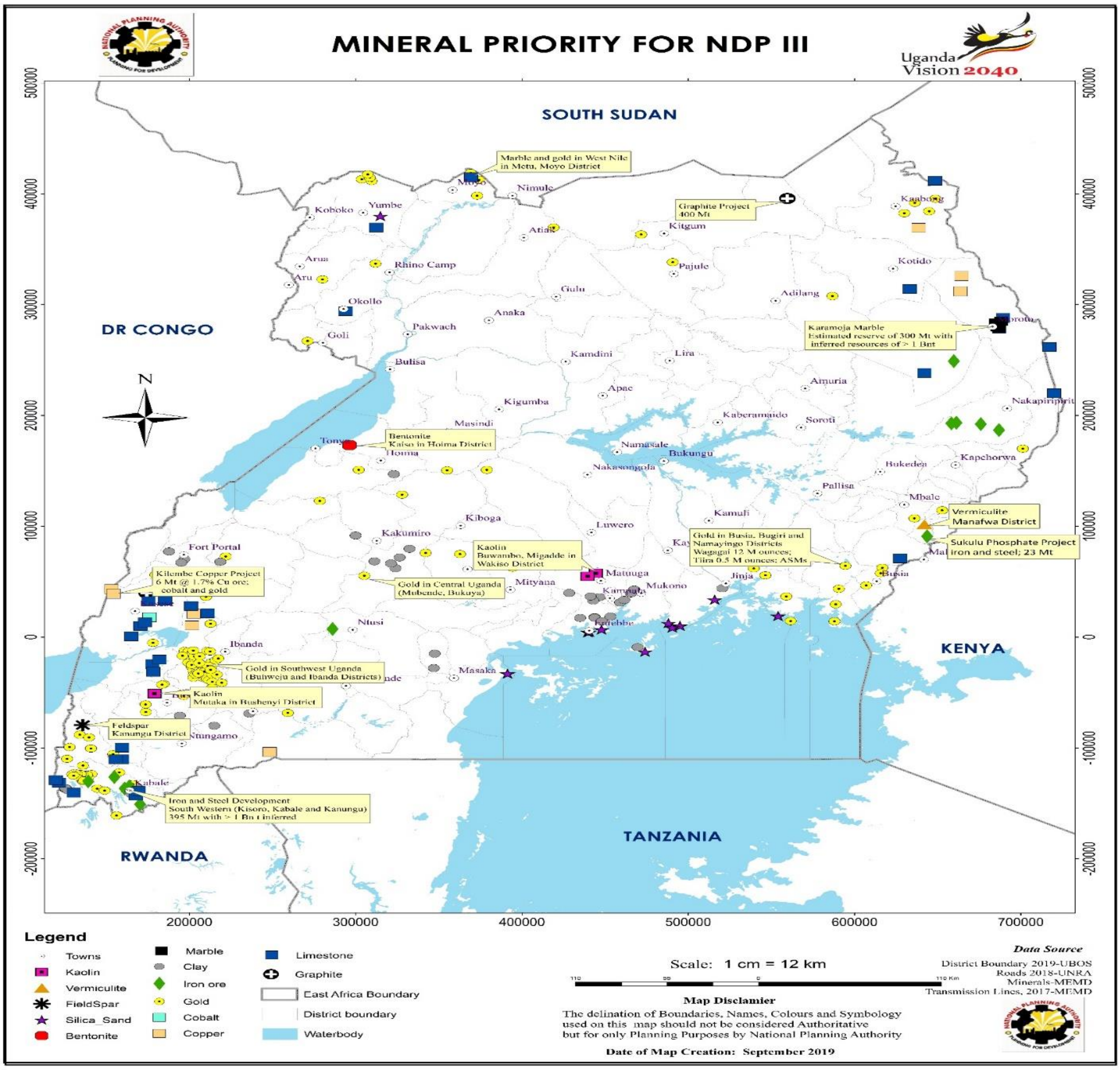
Interventions	Actors
Objective 5: Expand mineral processing and marketing	
1. Engage in bi-lateral and multi-lateral negotiations for increased access to external markets;	MEMD, MoFA, MTIC, MFPED, MoJCAs, UEPB, DPs
2. Introduce incentive packages to attract investment in priority mineral value chain;	MEMD, MTIC, MFPED, UIA, UDC, UDB, Financial Institutions, Private Sector
3. Streamline the process for acquisition and dissemination of market information;	MEMD
4. Review the tax regime to reduce the importation of cheap and substandard products;	URA, MoFPED, NPA
5. Enhance the capacity of UNBS to undertake quality assurance and standard inspection.	UNBS, MoFPED

6.3.2 Implementation Reforms

163. The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Adequately staff and facilitate the Directorate of Geology, Surveys and Mines to focus and fully guide the upstream section of the industry especially in the explorations and surveys.
2) Establish and/or strengthen inspection and certification departments to ensure compliance of the industry to the set laws and regulations.
3) Formalize artisanal and small-scale miners, incentivize and ease acquisition of latest technology to use in the industry.

Map 6.1: Location of different minerals in Uganda



Map 6.2. Required Infrastructure to Mineral Areas

6.3.3 Programme Human Resource Requirements

164. The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in table 6.2.

Table 6.2: Qualifications and Skills Gaps for Mineral Development Program

Qualifications and Skills	Status	Estimated 5-Years Gap
Cartographers and surveyors		426
Chemists		268
Computer Applications in Mining Specialists		273
Computer Programming Bootcamp Specialists		132
Computer Programming for Mining Specialists		231
Computerized Mine Design Specialists		392

Qualifications and Skills	Status	Estimated 5-Years Gap
Contract, Program and Project administrators		(262)
Data scientists and analytics		487
Digital Technologies and Mine Data Analytics Specialists		421
Drillers, miners and shot firers		(234)
Earthmoving Plant Operators		321
Electricians		143
Engineering Analysis and Design Specialists		95
Engineering Chemists		102
Engineering Physicists		208
Engineering Services for Mining Specialists		264
Engineering Surveying Specialists		432
Environmental Engineers		(321)
Environmental Impact Assessment specialists		(106)
Explosives Engineering		230
General clerks		(1,259)
Geologists and geophysicist		320
Geophysical Technician		126
Geotechnical engineering Specialists		512
Health, Safety and Mining Law Specialists		325
Industrial, mechanical and Production Engineers		272
Mechanical Excavation of Rock Specialists		124
Mechatronic engineers		235
Metal fitters and machinists		(48)
Mine Design Specialists		109
Mine Financial Valuation Specialists		241
Mine Surveying and Geospatial Specialists		226
Mine Technical Supervisors		(98)
Mine Transportation, Automation and Robotics Specialists		87
Mine Ventilation and Climate Control Specialists		89
Mineral Economists		179
Mineral Processing Specialists		321
Mineral Resources Evaluation Specialists		225
Mining engineers		198
Mining geomechanics Specialists		167
Ore Body Modelling Specialists		201
Ore Dressing and Extractive Metallurgy Specialists		106
Production managers		(79)
Purchasing and supply logistics clerks		(109)
Rock Engineering Specialists		125
Rock Mechanics Specialists		320
Store persons		(102)
Structural steel and welding Trades Workers		(273)
Surface Mining Systems Specialists		387
Truck drivers		(182)
Underground and Surface Mining Specialists		292
Ventilation, Mine Planning and Mineral Processing		194
Water, Energy and the Environment Specialists		(190)

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 7: SUSTAINABLE DEVELOPMENT OF PETROLEUM RESOURCES

7.1 Introduction

165. **The oil and gas industry has a potential to transform Uganda's economy.** The industry is also central to sustainable development, as oil and gas are key pillars of the energy system and, as such, are drivers of economic and social development. Sustainable exploitation of petroleum resources is important in order to maximize returns for current and future generations. This will require focusing on institutional design and planning for oil-sector efficiency; balancing petroleum resources developments with protection and conservation of natural environment; and strategic investment of petroleum revenues to promote equitable socioeconomic and infrastructural transformation of the whole economy.

166. **With careful planning and implementation, the oil and gas industry has the opportunity to contribute across all SDGs**, either by enhancing its positive contributions or by avoiding or mitigating negative impacts to ensure that "no one is left behind". Overall, oil and gas production can foster economic and social development by providing access to affordable energy, opportunities for decent employment, business and skills development, increased fiscal revenues, and improved infrastructure. However, if not exploited in a sustainable manner, petroleum can exacerbate the challenges that the SDGs seek to address, mainly climate change and environmental degradation, population displacement, economic and social inequality, armed conflicts, gender-based violence, tax evasion and corruption, increased risk of certain health problems, and the violation of human rights. The need for sustainable exploitation of petroleum resources is further stressed in the EAC Vision 2050, which calls for all countries in the region to emphasize access, capacity, efficiency and sustainability of natural resources. Additionally, the Uganda Vision 2040 envisages the commercialization of oil and gas in a feasible and sustainable manner.

167. **However, sustainable exploitation of the petroleum resources in a timely manner is a major development challenge** that this programme must address. This is caused by specific challenges including: (i) Inadequate infrastructure to support the development of oil and gas resources; (ii) Un-harmonized legal and regulatory framework; (iii) Protracted negotiation for the Final Investment Decision (FID) between government and the International Oil Companies (IOCs); (iv) Land acquisition issues (high costs, cultural issues); (v) Limited human and institutional capacity to support oil and gas operations; (vi) Unnecessary delays to grant approvals by relevant government agencies (ESIAs, water permits); and (vii) Limited private-led investment in the oil and gas industry.

168. **The goal of this programme is therefore is to attain equitable value from the petroleum resources and spur economic development in a timely and sustainable manner**.

169. The key results to be achieved over the next five years are:

    (i) Percentage change in the amount of revenue from oil and gas by 2%;

(ii) Ugandans employed in the oil and gas and related industries from 3,400 jobs in 2019 to 200,000 jobs.

7.2 Situation analysis

170. **Uganda has an estimated 6.5 billion barrels of oil of which 1.4 billion barrels are estimated recoverable**. In addition, gas resources are currently estimated at 500 billion standard cubic feet (BCF). Sustainable management of the petroleum resources entail strategic focus on the entire oil and gas value chain, which comprises the upstream (e.g., promotion, licensing, exploration, development and production of petroleum resources), midstream (e.g., transportation, refining of oil and conversion of gas), and downstream (e.g., distribution, marketing and sale of petroleum products). The production of oil and gas is expected to contribute greatly towards a reduction in the country's imports of petroleum and petroleum products, which accounted for about 16% of total imports in 2017/18; and enhance the country's exports.

171. **Progress has been made particularly with respect to upstream value chain activities**. The sector has transitioned from exploration and appraisal to new exploration and preparation for production of oil. The necessary policy, legal and institutional framework has been put in place as well as the necessary infrastructure, to support the oil and gas activities. In particular, Government in 2017 approved the Local content policy. The policy aims to increase participation of Ugandans in the oil and gas activities and it provides principles for capacity building for national enterprises, skills development for the oil and gas sector, as well as development of a National Local Content Fund to support national enterprises and promote national participation in the industry. In addition, the Petroleum Authority of Uganda (PAU) and the Uganda National Oil Company (UNOC) were operationalized to regulate the petroleum industry and manage the business/commercial interests respectively. These policy and regulatory interventions have fostered effective and sustainable management of the oil and gas industry. For instance, in 2016, Uganda completed the first competitive licensing round, with issuance of 9 production licenses out of the 14 field discoveries. This was a milestone into the development phase of the petroleum value chain, and is being undertaken under two separate projects—the Tilenga project in Buliisa and Nwoya Districts as well as Kingfisher project in Hoima and Kikuube Districts. In 2017, two more exploration licenses were issued to Oranto from Nigeria and Armour group from Australia.

172. **Tremendous progress has been made towards establishment of a 60,000 BoPD greenfield refinery in Hoima District**. This is in addition to land acquisition, resettlement and/or compensation of affected persons, and construction of road infrastructure leading to the location of the refinery project. Construction works for the Kabaale airport (which is part of the planned Kabaale Industrial Park) in Hoima District near the refinery land also commenced. Feasibility studies have been concluded on the development of transportation infrastructure for refined petroleum products.

7.3 Objectives

173. In order to maximize the country's returns from the oil and gas resources, the following specific objectives will be pursued over the NDPIII period:

1) To fast track sustainable production and utilization of the country's oil and gas resources;
2) To strengthen policy, legal and regulatory frameworks as well as institutional capacity of oil and gas industry;
3) To enhance local capacity to participate in oil and gas operations;
4) To promote private investment in oil and gas industry;
5) To enhance Quality Health, Safety, Security and Environment (QHSSE).

7.3.1 Interventions

174. Prioritized interventions to achieve the above objectives include:

Table 7.1. Petroleum Interventions and Respective Actors

Interventions	Actors
Objective 1: To fast track sustainable production and utilization of the country's oil and gas resources	
1. Undertake further exploration and ventures of the Albertine Graben	MEMD, MoFPED, PAU, UNOC, Joint Venture Partners
2. Fast track the implementation of infrastructure projects in the Albertine Region to ease movement of goods, labour and provision of services a) Roads, energy, water and ICT network b) East African Crude Oil Pipeline c) storage terminals and the auxiliary facilities d) Geoscience laboratory	MEMD, MoWT, UCAA, UNRA, MoLHUD, MWE, MoFPED, UNOC, MoICT&NG, LGs
3. Construct the Central Processing Facilities (CPFs) for Tilenga and Kingfisher projects;	MEMD
4. Conduct a detailed feasibility study to establish a robust and adequate petrochemical industry	MEMD, MOFPED, NEMA, PAU, NPA
5. Develop a petrochemicals masterplan to guide the establishment and the development of the petrochemical industry	MEMD
Objective 2: To strengthen policy, legal, regulatory and institutional framework for the oil and gas industry	
1. Fast-track the completion of relevant project commercial agreements a) Share Holders Agreement (SHA), Host Governmental Agreements (HGA), Transportation and Tariff Agreement (TTA)	MEMD, MoJCA, PAU, UNOC, Parliament, Joint Venture Partners
2. Review and update relevant policies; and fast-track harmonization of conflicting laws and regulations;	MEMD, MoJCA, PAU, UNOC, Parliament, Joint Venture Partners

Interventions	Actors
3. Operationalize the National Content policy to enhance local Content and national participation in oil and gas	MEMD
4. Develop strategy for an innovation hub for oil and gas;	MEMD, MoJCA, MoES, PAU, UNOC, Academia, Joint Venture Partners, NCHE
Objective 3: To enhance local capacity to participate in oil and gas operations	
1. Establish an oil and gas fund under UDB to enable local companies' access cheaper credit;	MEMD, MoFPED, UDB
2. Capitalize and/or license UNOC to execute its mandate as an investment arm of government in oil and gas industry	MEMD, MoFPED, UNOC, PAU, Parliament
3. Fast Track Skilling (e.g., apprenticeship), Training and International Accreditation of Ugandans for employment and service provision in the development/phase of the oil and gas sector.	MEMD, MoJCA, MoES, PAU, UNOC, Academia, NCHE, Joint Venture Partners
4. Implementation of a clear strategy on value addition and marketing of goods and services that will be demanded by the oil and gas sector	MEMD, PAU
5. Provide SMEs both technical (training) and financial support to enhance their participation in tendering and of delivery of contracts. (Direct and indirect participants in the oil and gas value chain)	MEMD
6. Establish inter-sectoral linkages to ensure readiness to meet the needs in the oil and gas industry	MEMD, PAU, UNOC, PSFU, Joint Venture Partners
7. Framework for adoption and transfer of knowledge and technology.	MEMD
8. Implement the Agricultural Development Strategy for the Albertine Region	MEMD, MAAIF
Objective 4: To promote private investment in oil and gas industry;	
1. Develop and implement sustainable financing strategy	MOFPED, PSFU, UDB, UNOC
2. Implement a communication strategy to deal with public anxiety and managing expectations;	MEMD, UNOC, ICT, NITA_U, PAU
3. Develop and implement a marketing strategy for oil and gas projects.	MEMD, UNOC, ICT, NITA_U, PAU
Objective 5: To enhance Quality, Health, Safety, Security and Environment (QHSSE),	
1. Develop and implement oil and gas QHSSE systems and standards;	MEMD, MoGLSD, MoH, MoD, MIA, MWE, PAU, UNOC, UNBS, NEMA, Joint Venture Partners
2. Establish QHSSE governance and assurance framework;	MEMD, MoGLSD, MoH, MoD, MoIA, MWE, PAU, UNOC, UNBS, NEMA, Joint Venture Partners
3. Develop and implement a disaster recovery plan;	MEMD, MoGLSD, MoH, MoD, MIA, MWE, MoLHUD, PAU, UNOC, UNBS, OPM, NEMA, LGs, Joint Venture Partners
4. Develop and implement standard operating procedures (SOPs);	MEMD, UNOC, MoGLSD, MoH, MWE, PAU, UNOC, UNBS, NEMA, Joint Venture Partners
5. Develop decommissioning and closure management plans	MEMD, UNOC, MoGLSD, MoH, MoD, MIA, MWE,

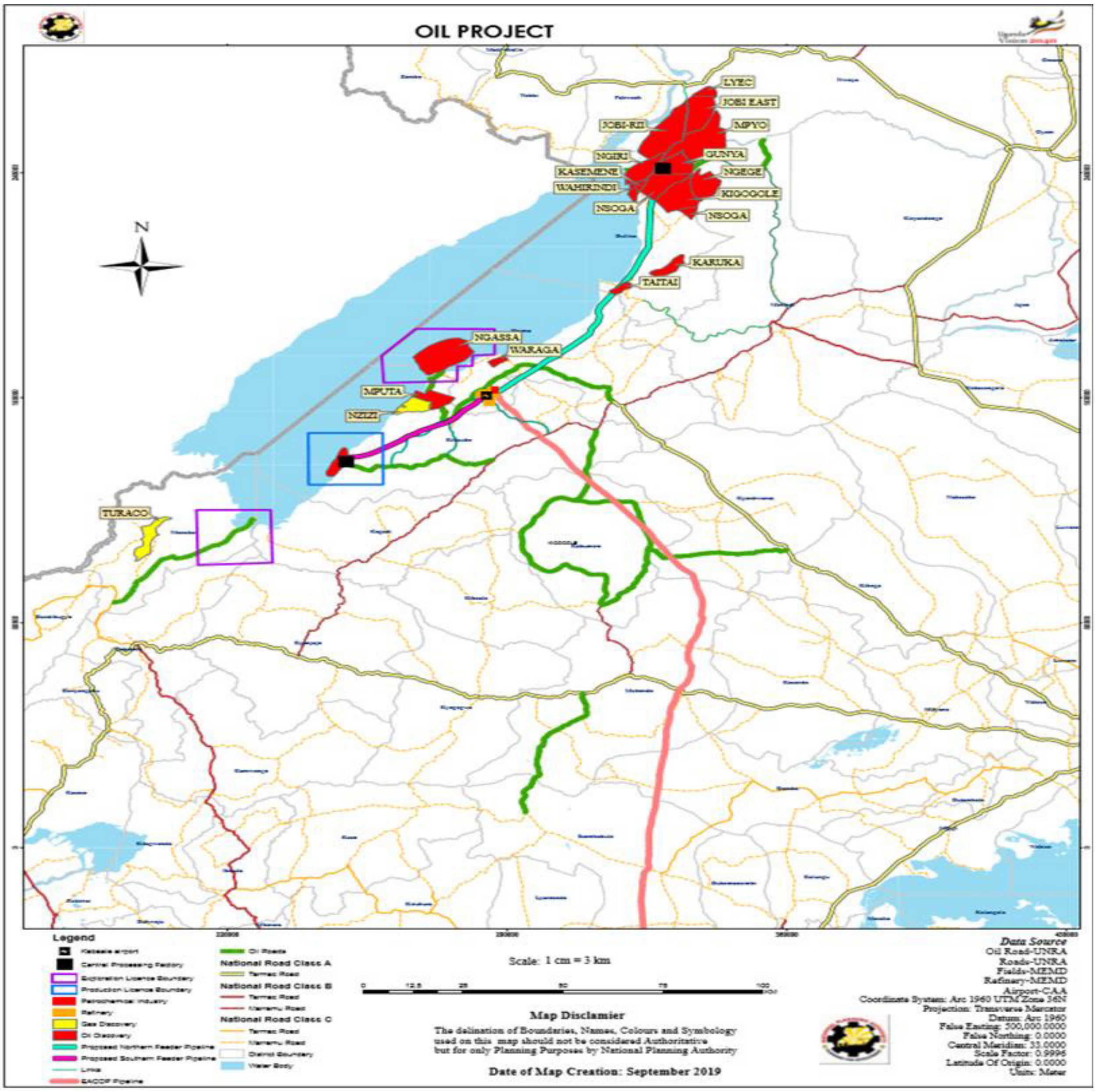
Interventions	Actors
	PAU, UNOC, NEMA, LGs, Joint Venture Partners
6. Develop and implement environmental and social management plan	MEMD, MoGLSD, MoH, MWE, PAU, UNOC, NEMA, UWA, LGs, Joint Venture Partners

7.3.2 Implementation Reforms

175. The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Operationalize the National Content policy to enhance local Content and national participation in oil and gas;
2) Fast Track Skilling, Training and International Accreditation of Ugandans for employment and service provision in the development/phase of the oil and gas sector;
3) Support to SMEs-Technical and Financial support to enhance their direct and indirect participation in the oil and gas value chain;
4) Fast track the implementation of infrastructure projects in the Albertine Region to ease movement of goods, labour and provision of services;
5) Implement the Agricultural Development Strategy for the Albertine Region to ensure the adequate supply of agriculture goods;
6) Implement a clear strategy on value addition and marketing of goods and services that will be demanded by the oil and gas sector
7) Develop a risk management plan for the oil spill.
8) Capitalize UNOC to enhance its engagement/partnership with the private sector in different ventures across the petroleum value chain, and position the Company to match the level of competitiveness.
9) Linkage between governance, financing and technology in the oil and gas sector.
10) Harmonize relevant agreements and contracts with the Petroleum Act 2013 to facilitate the signing of the Final Investment Decision (FID).

Map 7.3. Mapping of selected supporting infrastructure for Petroleum Development



7.3.3 Programme Human Resource Requirements

176. The key skills and competencies required to fully implement this programme and realise expected goals in the next five years are highlighted in table 7.2.

Table 7.2: Qualifications and Skills Needs for: Sustainable Development of Petroleum Resources

QUALIFICATIONS AND SKILLS	Status	Estimated No
Health, Safety and Environmental specialists (HSE)		200
Petroleum Engineers		40
Chemical Engineers		70
Drilling Engineers		40
Production Engineers		70
Reservoir Engineers		60
Facilities Engineers		465
Electrical & Instrumentation Engineers		52
Petro-physicists		30
Reservoir Geologists		20
Production Geologists		18
Production Chemists		40
Reservoir Geophysicists		40
Refinery Engineers		35
Pipeline Engineers		30
Petroleum Economists		70
Welders		(2500)
Drivers		(30000)
Drilling Supervisors		120
Masons		88
Crane operators		(2000)
Geotechnical engineer		80
Drilling waste engineer		65
Wellhead/ Xmas Tree specialist		50
Drilling/ Completion equipment superintendent		70
Well testing specialist		30
Mechanical technician		110
Civil control engineer		100
Production Technician		150
Field Depletion Planning		45
Basin Analysis specialists		50
Scaffolding specialists		701
Drilling Rig Operators		187

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 8: TOURISM DEVELOPMENT

8.1 Introduction

177. **Tourism is important for promoting economic growth, alleviating poverty, and advancing food security**. It contributes towards inclusive growth and development of a country by: one, bringing numerous economic value and benefits; and, second, helping in build country's brand value, image and identity. It is important to poverty reduction by providing employment and diversified livelihood opportunities. This in turn provides additional income or contributes to a reduction in vulnerability of the poor by increasing the range of economic opportunities available to individuals and households. Further, tourism has wide multiplier effects by developing not only primary industries but also secondary industries to support tourism e.g agriculture, manufacturing, transport and services.

178. **The aspiration of Agenda 2030 is to devise and implement policies to promote sustainable tourism which creates jobs, promotes local culture and products** (SDG 8). Tourism also supports SDG 15 to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. Agenda 2063 also targets increasing the contribution of tourism to GDP. EAC Vision 2050 prioritizes joint interventions in the tourism sector that are: competitively priced; cost effective and have a high return on investment through the issuance of an East African Visa; and joint marketing presenting the EAC as one tourism product and standardized joint classification of hotels. The Uganda Vision 2040 identifies tourism as one of the strategic opportunities that need to be harnessed for socio-economic transformation.

179. **Nevertheless, Uganda is inadequate exploitation of the country's tourism potential** due to: (i) limited branding, marketing and promotion; (ii) inadequate tourism infrastructure due to low investment in tourism infrastructure; (iii) undeveloped and narrow product range; (iv) inadequate and unskilled manpower/personnel; and, (v) weak institutional, policy and regulatory framework due to weak co-ordination, outdated laws and non-deterrent, and small staff strengthen.

180. **The goal of this programme is therefore to increase Uganda's attractiveness as a preferred tourism destination.**

181. The key results to be achieved over the next five years (FY 20/21 to FY 24/25) are:

(i) Increase annual tourism revenues from USUSD1.6 billion to USUSD3.0 billion;

(ii) Increase the contribution of tourism to total employment from 6.3% to 10% or from 667,600 to 1,100,000 people;

(iii) Increase Inbound tourism revenues per visitor from USD1,036 to USD1,500;

(iv) Increase the number of International Tourist arrivals from the U.S., Europe and China from 210,000 to 500,000 tourists;

(v) Increase the proportion of leisure to total tourists from 20.1% to 30%;

(vi) Increase the number of direct flight routes to Europe and Asia from 6 to 30.

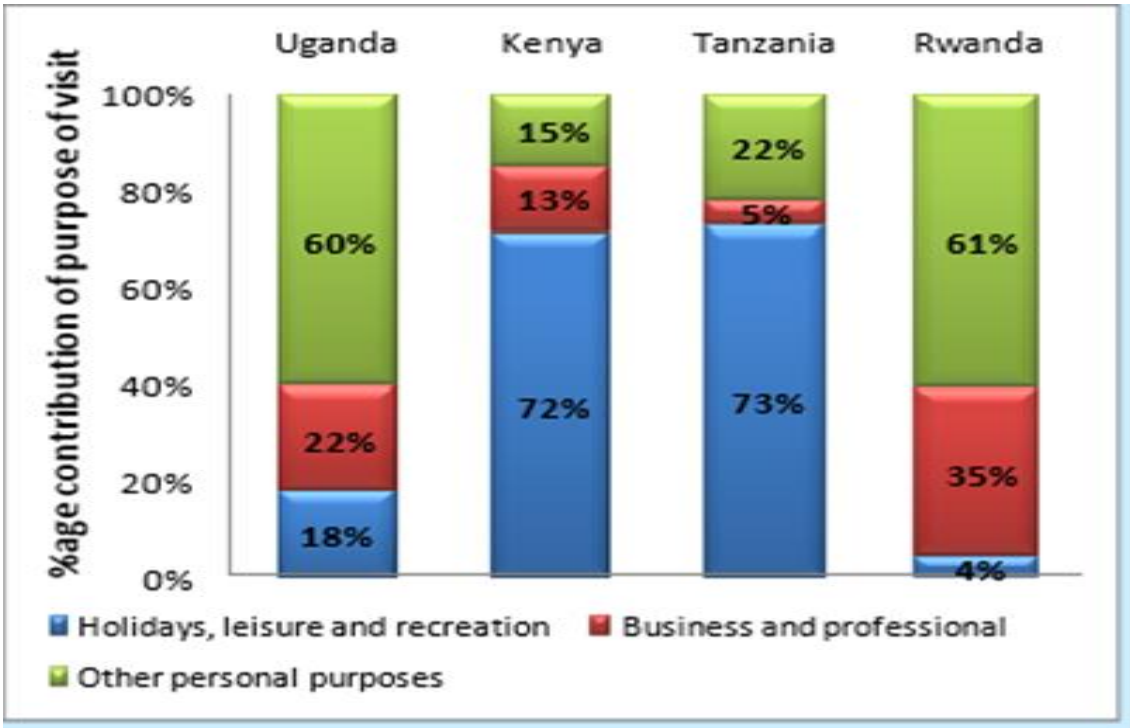
8.2 Situation Analysis

182. **Uganda has a big potential in tourism compared to its comparators, notably in the areas of safaris, culture and historical heritage**. It is endowed with a variety of tourist attractions, being a home to 53.9 percent of the world's mountain gorillas, 7.8 percent of the world's mammal species, including the unique tree climbing lions and white rhinos, 11 percent of the world's bird species (1063 bird species), and variety of butter flies. Other unique attractions include chimpanzees and golden monkeys. The country has beautiful mountain ranges including the snow-capped Ruwenzori Mountain ranges, second largest fresh water lake (Lake Victoria), third deepest lake (Lake Bunyonyi) in the world and as well as the source of the world's longest river (River Nile) gifted with beautiful waterfalls and unique water scenery.

183. **The country has made some modest investments in the diversification and development of tourism products, some tourism marketing** in the United States, German and the United Kingdom, and in the improvement of tourism infrastructure particularly hotels and transport. As a result, the country has registered some success in terms of increasing tourist arrivals and revenue as well as creating jobs along the tourism value chain. However, the vast majority of arrivals in Uganda are from African countries. In terms of leisure tourism, the country remains dependent on traditional tourist source markets in America and Europe. As such, the quality of tourists and the expenditure per tourist is low compared to Uganda's comparators (Figure 8.1).

184. **In 2017, 35 percent of total arrivals came to Uganda visit friends and relatives**, followed by those visiting for Business and professional conferences at 28 per cent. With 80 percent of tourists being residents of East Africa, the per capita tourist expenditure is low and as a result the hotels have only 29 per cent annual occupancy, suggesting lack of guests.

Figure 8.1. Tourists' comparison to Uganda by Purpose of Visit



Source: Uganda Bureau of Statistics

185. **The average length of stay for leisure tourists was 7.5 days**, and the average spending per day was about USD400 (Tourism Satellite Account (TSA)[1])

186. **Uganda's brand identity is not readily recognized globally for tourism and has been mostly shaped, in a negative light, by its history, politics and the media**. In addition, Uganda's commercial diplomacy has not aggressively marketed Uganda. The promotional campaigns by Uganda Tourism Board have focused mainly on the traditional source markets. Tourism marketing in emerging markets like China, Middle East and Japan is almost non-existent.

187. **Uganda's transport connectivity is inadequate to facilitate tourism** (Map 8.1). Progress has been made in improving internal transport connectivity owing to government's focus on tarmacking roads over the last ten years. But despite the progress made, there is still more work to be done. Bwindi roads are sometimes completely blocked as a result of landslides during the rainy season, disrupting tourist movement. There is also need for better air connectivity, especially for Kidepo Valley National Park, and Bwindi Impenetrable National Park. Also, the absence of an efficient public transport system connecting to tourism sites means that potential tourists who do not have their own transport or who find hiring private cars expensive are discouraged from touring such places.

[1] UNECA, "Uganda's Tourism Satellite Accounts: Estimating Tourism's Direct Economic Value Addition to the National Economy", 2018

Table 8.1. Tourism and Travel Competitiveness Index Ranking for EAC

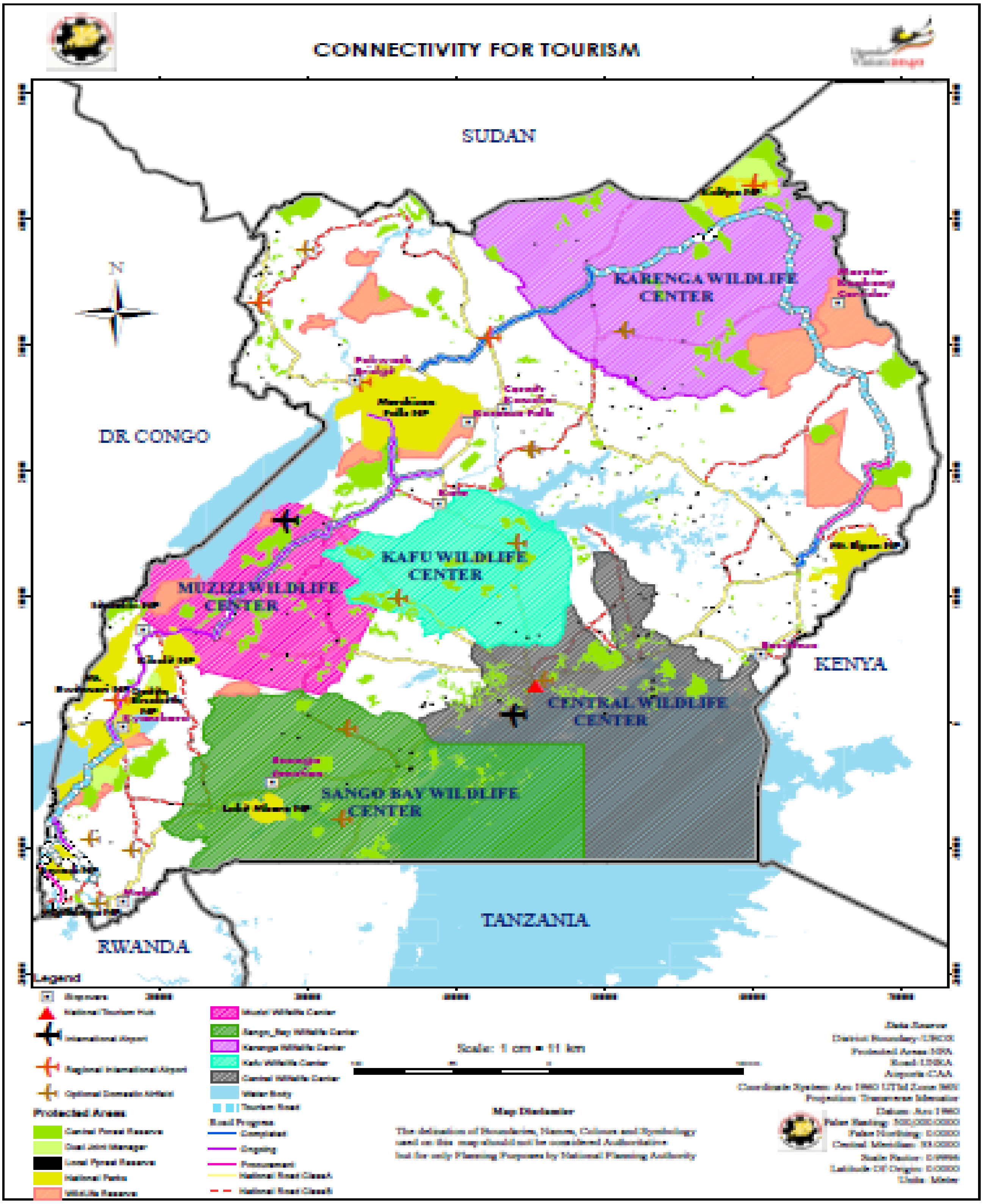
	2007 (out of 124)	2009 (out of 133)	2011 (out of 139)	2013 (out of 140)	2015 (out of 141)	2017 (out of 136)
Kenya	98	97	103	96	78	80
Tanzania	80	98	110	109	93	91
Uganda	101	111	115	116	114	106
Rwanda	-	-	102	105	98	97
Burundi	123	131	137	138	135	134

Source: WEF (2017a).

188. **The country has a very limited number of direct flights into the country thus making the international transport cost more expensive in comparison to the region comparators** (Table 8.1). There are no direct flights to Asia and only a few to the Middles East. Other infrastructure issues of concern include unavailability of electricity, water, ICT in key tourism sites, and lack of tourist stopover facilities. Most tourists have to ease themselves in the bush.

189. **Uganda's tourism product range is narrow, under and undeveloped**: Uganda boasts of large water bodies, the River Nile, tall mountains, rich culture and heritage, diverse avian life and a strong entertainment sector but little of these have been developed for tourism. Currently, 51 per cent of tourist revenue comes from wildlife products, particularly from the sale of gorilla permits. In addition, dwindling stocks arising from poaching, climate change effects, human-wildlife conflicts and a number of other factors are constraining the growth of revenue even from this source. There is limited government support to the private sector to spur investment in tourism and the existing incentives are not yet attractive enough to lure them into product development. The huge skills gaps also limit creativity and any meaningful innovation to add value to the existing products. In addition, inadequate access to Tourist Information and unhospitable treatment of tourists on arrival. There are not enough tourism information centres throughout the country and even the few available are not easily accessible to guide tourists during their stay leaving them to guess where to go and what to see. The local communities at times take advantage and provide substandard services at the detriment of the industry. The reception of tourists at airports and border entry points is unhospitable and leaves quite a number of tourists feeling unwelcome.

Map 8.1. Tourism connectivity



190. **In addition, inadequate and relatively expensive hotels**. With a very low presence of international branded hotel chains, the country still has a shortage of quality accommodation capacity in and around National Parks, and across the country. By November 2018, only 3 international hotel chains[2] were operating in Uganda i.e. Marriott International Group (Sheraton Hotel and Protea Hotel brands); Louvre Hotels Group (Golden Tulip Canaan brand) and Best Western Hotels and Resorts (Best Western Premier Garden Hotel, Entebbe) as compared to Kenya (with 15) and Tanzania (with 15)[3] respectively. Hilton Garden Inn Kampala joined the Hilton Portfolio in 2019 and Royal Swiss Empuku Spa & Resort, Entebbe is expected to join the Swiss International Hotels & Resorts chain in 2019. Hotel beds in most game parks and game reserves are few and very expensive. For instance, a hotel bed in the Kidepo national park costs about USD700 a night, compared to an average of USD80 – USD100 in Asia for comparable or better accommodation.

191. **Manpower/personnel working in tourism are inadequate and unskilled**. The quality of personnel available to work in the tourism sector is generally low. There are few available tourism training institutions, whose quality is also lacking. The quality of both instructors and equipment at the Hotel and Tourism Training Institute (HTTI) in Jinja needs upgrading. The private sector has requested government to recruit a recognized international tourism training company to manage the HTTI for at least five years, a request that is yet to be addressed.

192. **Further, there is inadequate policy and quality regulation in the sector**. There are no established standards to regulate/guide the tour guides. The current poor stakeholder engagement and co-ordination in conducting training for their members constrains efforts to raise the skill levels in the sector, and the culture of training and continuous professional development is weak. Maintenance of standards and quality of service is at the discretion of the owners of the different facilities. This creates service quality gaps that undermine growth of the sector. Whereas Uganda Tourism Board has started classifying hotels and lodges, its capacity is limited leaving the majority of the actors along the value chain unregulated. In addition, these standards have not been rolled out to local governments for enforcement by district commercial officers. Local governments, regional clusters of private sector players, the Ministry of Tourism and UTB should be more to guide, inspect and regulate the sector.

193. **Uganda's tourism strategy in NDPIII will two pronged focusing on both elite and mass tourism.** Mass tourism products will include: Culture and heritage sites, religious events, and education. Elite tourism products include: Meetings, Incentives, Conferences and Events (MICE), specialized health care services, plus nature and wild. Toward this, Uganda will be marketed both as a niche tourism 'product' offering an unparalled and

[2] A Hotel Chain is a company that owns or operates several hotels located in different areas

[3] Knight Frank (2018). **Hotels Africa 2018**: Accommodating growth in Africa

unique tourism experience and as a mass tourism destination. Special products will be designated for the different categories of tourism.

8.3 Objectives

194. In order to address the above constraints, the objectives of this programme are to:

1) Promote domestic and inbound tourism;
2) Increase the stock and quality of tourism infrastructure;
3) Improve, develop and diversify tourism products and services; and
4) Develop a pool of skilled personnel along the tourism value chain.

8.3.1 Interventions

195. In order to achieve the above objectives, NDPIII will prioritize the following interventions under this program:

Table 8.2. Tourism Interventions and Respective Actors

Interventions	Actors
Objective 1: Promote domestic and inbound tourism	
1. Develop and implement a national tourism marketing strategy targeting both elite and mass tourism segments by: a. Brand Uganda; b. Produce and widely disseminate Tourism promotion and marketing materials; c. Hire Market Destination Representative firms for 12 key markets; d. Build and upgrade Tourism Stopover points; e. Increase domestic tourism through initiatives; f. Establish and commercialise regional tourism information centres in designated tourism development areas; g. Promote Uganda in the EAC region as a viable destination for leisure and MICE visitors; h. Leverage on latest information technology for destination promotion, marketing and advertising in all source markets; i. Improve Destination image through positive PR and crisis management j. Develop National tourism product portfolio.	UTB, MTWA, LGs, MoFA, UIA, Private Sector, Cultural & Religious Institutions, UWA, Media/UBC, MoICT & NG
2. Develop international, regional and domestic connectivity with countries already attracting large numbers of tourists and for domestic markets. In particular, upgrade and expand Entebbe airport and regional aerodromes.	MoWT, UNRA, UCAA, Uganda Airlines, UTB, CAA
3. Develop a more robust public/private sector system to collect and analyse information on the industry in a timely fashion. In particular, establish partnerships with domestic, regional and international airlines/carriers.	Uganda Airlines, Private sector
4. Upgrade handling and negotiation capacity of frontier services and foreign intermediaries a. Train Ugandan diplomats to support tourism marketing and handling, and Visa/consular staff in customer care; b. Introduce mechanisms to allow online purchase or pre-approval of visas.	Uganda Airlines, MoFA, MOIA MTIC, MTWA, UEPB, and UTB.
Objective 2: Increase the stock and quality of tourism infrastructure	

Interventions	Actors
1. Expand, upgrade and maintain tourism national transport infrastructure and services: a. Improve the road for southern access to Bwindi National Park; b. Build a bridge across the Nile at Murchison Falls National Park; c. Relocate and upgrade the airstrip at the periphery of Kidepo Valley National Park; d. Expand, upgrade and/or maintain National tourism roads; e. Improve and/or maintain access to Protected Areas; f. Construct/rehabilitate/upgrade marine/water routes including 20 docking piers on Lake Victoria.	MoWT, UNRA, UCAA
2. Support the development and/or upgrade of accommodation and conference facilities of all types and sizes as well as leisure attractions and facilities (including, restaurants, bars and cafes): a. Increase the number of hotel rooms and food and beverage facilities; b. Facilitate the establishment of International hotel chains; c. Construct a National Convention center to scale up MICE tourism.	MLHUD, UWA, MoWT, Private sector, MTWA, MWE, MoFPED, UIA
3. Support the private sector to provide low-cost accommodation facilities in protected areas	MTWA, Private sector
4. Develop digital capability in the tourism industry to market and improve access to products: a. Provide fast, accessible and reliable internet connectivity all wildlife protected areas and other major tourists' attractions; b. Promote use of e-tourism services.	UCC, ICT
5. Construct water dams in Toro Semuliki Wildlife Reserve, Lake Mburo National park, Kidepo Valley National Park, Murchison Falls National Park, Pian Upe Wildlife Reserve and Bokora-Matheniko Wildlife Reserve savannah wildlife protected areas	MWE, UWA
6. Establish trade and service facilities, including; insurance, banking, sports and recreation, cultural and craft facilities and services at the different tourist attraction points.	MTIC, UWA, Private Sector, MTWA, MOES, MoFPED, IRA, UEPB, NCS, MoGLSD
Objective 3: Develop and diversify tourism products	
1. Develop new and upgrade/maintain existing tourist attraction sites profiled by region to include new products like dark tourism, culinary tourism, adventure tourism, wellness 'tourism, war tourism. Such as: Community tourism; Adventure tourism further enhanced by developing hiking, climbing and cable cars in the Rwenzori Mountains; Water-based (marine) tourism; e.g. from Semuiki National Park to East Madi wildlife reserve through Lake Albert, Semuliki river and River Nile; MICE; Agro-tourism.	MTWA, UWA, LGs, UTB, MoICT & NG, MLHUD, MWE), Cultural & Religious institutions, UWEC, MAAIF
2. Remove evasive species in protected areas.	UTB, MTWA, MAAIF, MTIC, Private Sector, UIA, UCDA, UWA, UEPB, MoWT, UNRA, MoLG, LGs
3. Diversify tourism products	MTWA
4. Upgrade Pian Upe Wildlife Reserve into a National Park.	MTWA, NWA

Interventions	Actors
a. Extend the length of safari drive to 21 days by including the Pian Upe circuit	
5. Establish and enforce quality marks/standards for the tourism industry and its sub-segments through regular inspection and grading of tourism-related facilities such as accommodation, attractions, beaches, restaurants and travel as well as enforce service standards for tour operators	UTB, MTWA, MoH, KCCA, LGs, Tourism Police, Private Sector, UWA
6. Develop competitive tour packages (including transportation, lodging, and excursions):	Private Sector, MTWA, MoFPED, MTIC, UTB and UWA
7. Provide security at tourist attraction sites including addressing human-wildlife conflicts	MoDVA
Objective 4: Develop a pool of skilled personnel along the tourism value chain	
1. Revise the curriculum at the Hotel and Tourism Training Institute (HTTI) in consultation with the private sector.	UHTTI, UWRTI, MOES, NCDC
2. Provide tailor-made training for actors across the entire tourism value chain.	MTWA, MOES
3. Incentivize the private sector to provide skills through internship and apprenticeship programs.	MTWA
4. Nurture local hospitality sector enterprises for participation in local, regional and global tourism value chains.	MTWA
5. Establish and operationalize a tourism investment fund to enable private investors get access to affordable.	MoFPED, MTWA, MTIC, UTB, Enterprise Uganda

8.3.2 Implementation Reforms

196. The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Develop service delivery standards to set benchmark against which to assess performance.

2) Uganda Tourism Board (UTB) should be put in charge of all tourism marketing efforts given the diversity of tourism products. The role of UWA should be streamlined to concentrate on conservation and wildlife management.

3) The construction of UHTTI in Jinja is about to be complete. In line with service delivery standards, capacity must be built to ensure its efficiency.

4) UTB has identified thirteen (13) tourism clusters to consider product diversity and regional inclusiveness. Following the same approach, government will develop at least one tourist site in each of the 13 clusters.

5) MTWA should fast track a policy on data collection to support sector planning and reporting. In addition, UTB needs to strengthen its quality assurance system to support regular inspection and supervision of all tourism and related hospitality enterprises.

8.3.3 Programme Human Resource Requirements

197. The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in table 8.3.

Table 8.3: Qualifications and Skills Gaps for Tourism Program

Qualifications and Skills	Status	Estimated 5-Years Gap
Airline management specialists		105
Bartenders		(2,108)
Brand management specialists		360
Casino operations specialists		(980)
Chefs		1,963
Coach and Scout specialists		(290)
Community planning specialists		639
Conferences and special events management specialists		(672)
Cost controls in foodservice specialists		827
Cultural, Arts and Heritage Tourism specialists		920
Demography of wildlife species		520
Destination Planning and Management specialists		270
Ecotourism specialists		350
Ethnographers		563
Financial accounting for service industries specialists		121
Financial analysis of hospitality enterprises specialists		282
First-Line Supervisors of Food Preparation and Serving Worker		192
Food services management specialists		2,783
Geologists		262
GIS and Remote Sensing specialists		296
Guest relations managers		(1,837)
Hospitality Management Systems specialists		271
Hospitality Sales and Meeting Management specialists		216
Hospitality Strategic Marketing specialists		321
Hotel & resort management specialists		249
Hotel and resort managers		(520)
Hotel front desk clerk/receptionists		(2,890)
Hotel market analysis specialists		276
Housekeepers		(1,692)
Human-wildlife Conflict Management specialists		231
International air and marine transportation specialists		129
International hotel management specialists		937
International Policies on Tourism specialists		733
Interpreters and Translators		237
Jewellery and Precious Metal Workers		715
Lodging management specialists		(108)
Meetings and conventions specialists		(117)
Multilateral Agreement negotiations		210
Museologists		193
Nature-Based Tourism and Ecotourism specialists		231
Palentologists		142
Plants Identification and Herbarium		239
Reservation, Ticket Agents and Travel Clerks		251
Resort management specialists		(146)
Restaurant management specialists		(718)
Sommelier-Wine and beverages tasters		289
SPA specialists		843
Specialists in tourism Research methods		320
Sports law specialists		240
Sports marketing specialists		821
Sports tourism specialists		287

Qualifications and Skills	Status	Estimated 5-Years Gap
Sports, Recreation and Cultural Centre Managers		262
Sustainable Tourism and Hospitality specialists		542
Tour operations specialists		(162)
Tourism and Events Management specialists		(231)
Tourism and Leisure activity coordinators		(917)
Tourism Human resource management specialists		(156)
Tourism Journalists		(174)
Tourism law specialists		89
Tourism marketing specialists		92
Tourism Products development and innovation specialists		821
Tourism Public Relations specialists		(171)
Tourism research specialists		256
Tourism Technical Managers		321
Tourist Information Centre managers		(920)
Tours and travel guides		(827)
Travel agency managers		(239)
Travel and transportation distribution specialists		(415)
Waiters and waitresses		(2,161)
Wildlife Inventory and Monitoring		337
Zoologists		120

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 9: CLIMATE CHANGE, NATURAL RESOURCES, ENVIRONMENT, AND WATER MANAGEMENT

9.1 Introduction

198. **Climate change mitigation and environment management are critical to the achievement of increased household incomes and improvement of quality of life of the population**. Sufficient precipitation occasioned by maintaining and/or increasing forest and wetland cover is vital for hydropower generation, agriculture, fisheries, domestic water supply, industry, navigation, tourism, wildlife and ecosystems. Proper wetland management is necessary to mitigate flood risks, maintenance of aquatic ecosystem, and access to fresh water. Environment preservation is also critical for human health and tourism. In addition, mitigating the climate change orchestrated impact of droughts, floods, heat waves and landslides on the livelihood of vulnerable populations is critical for reducing income inequality.

199. **17 goals of the SDGs envisage a future that would be rid of poverty and hunger, and safe from the worst effects of climate change**. Specifically, goals 6, 7, 11, 12, 13, 14 and 15 set targets for combating the effects of climate change and sustainable management of water resources, terrestrial ecosystems, forests and the environment. Aspiration 1, Goal 7 of Africa Agenda 2063 calls for putting in place measures to sustainably manage the continent's rich biodiversity, forests, land and waters and using mainly adaptive measures to address climate change risks. The EAC Vision 2050, pillar 3.4 targets sustainable utilisation of natural resources, environment management and conservation with enhanced value addition having, with 92.9% of population having access to safe water. The Uganda Vision 2040 calls for development of appropriate adaptation and mitigation strategies on Climate Change to ensure that Uganda is sufficiently cushioned from any adverse impact brought by climate change. In 2018, Uganda became the first country in Africa to sign the Partnership Plan for Nationally Determined Contributions (NDCs) to achieve national climate goals as part of its obligations to the Paris Agreement. Under the NDCs, the country committed itself to reduce national emissions and adapt to the impacts of climate change.

200. **Nevertheless, poor management of water, environment and natural resources coupled with the worsening effects of climate change** have resulted into: (i) high exposure to hazards and disasters, within the context of limited capacity for climate change adaptation and mitigation; (ii)low disaster risk planning; (iii) rampant degradation of the environment and natural resources caused by low enforcement capacity, limited environmental education and awareness, limited alternative sources of livelihoods and limited research, innovation and adoption of appropriate technology; (iv) limited access and uptake of meteorological information (inaccuracy in information) due to low technology and equipment for early warning and preparedness and ineffective systems and mechanisms for addressing vulnerabilities (v) poor coordination and institutional capacity gaps in planning and implementation; and (vi) absence of appropriate incentives for good environmental management practices.

201. **The goal of the programme is therefore to stop and reverse the degradation of Water Resources, Environment, Natural Resources as well as the effects of Climate Change on economic growth and livelihood security.**

202. The key results to be achieved over the next five years are:

(i) Increase water permit holders complying with permit conditions at the time of spot check;

a. abstraction – surface from 76% to 85%;
b. abstraction – groundwater from 73% to 83%;
c. waste water discharge from 59% to 68%.

(ii) Increase water samples complying with national standards;

a. water bodies at 65% by 2025;
b. supplies/water collection point at 80% by 2025;

(iii) Increase land area covered by forests from 9.1% to 15%;

(iv) Increase land area covered by wetlands from 10.9% to 12%;

(v) Increase permit holders complying with EIA conditions at the time of spot check from 40% to 90%;

(vi) Increase the accuracy of meteorological information from 80% to 90%;

(vii) Increase the percentage of automation of weather and climate network from 30% to 80%.

9.2 Situation Analysis

203. **Over the NDPII period, there has been mixed results in the performance of key elements of this program**, notably; conservation, restoration and management of water, environment and natural resources. There has been significant reduction in the forest cover from 15% in 2010 to 9.5% in 2017 as well as wetland degradation and encroachment; from 11.9% in 2012 to 10.9% in 2017. These changes are contributing to increased food insecurity; higher incidence of diseases and pests in humans, livestock and crops; soil erosion and land degradation; loss of biodiversity; flood damage to infrastructure and settlements and shifts in the productivity of agricultural and natural resources.

204. **Overall, 15.3% of Uganda's area is covered by open fresh water sources** (rivers, lakes, streams and swamps). The total renewable water resources (TRWR) of for the country is 43.3 km3. Average annual groundwater recharge is relatively high in the range of 19.1 to 39.9 mm. Hence, Uganda is not a water scarce country. However, Uganda does experience water challenges such as, water pollution and siltation of dams and rivers. The major problem with the water resource is pollution caused by bacterial and chemical contamination of both groundwater and surface water resulting from inadequate sanitation facilities, unsafe disposal of municipal and industrial waste, poor farming practices coupled with degradation of the wetland and catchment areas. The pollution has increased the costs of water treatment raising the cost of water provision which at the moment is one of the highest in the region. The rate at which rivers and lakes are silting is threatening their

ecological integrity compounding water stress in some areas and the cost of treating drinking water.

205. **Government efforts to revamp meteorological services and scaling up investment in collaboration with the development partners has greatly improved the meteorological sub-sector**. Equipping of weather monitoring stations and training of staff for the generation of data for meteorological products and services has been put in place and is continually upgraded to meet the evolving demands. Automation of weather monitoring and communication infrastructure (including radar technology) has leaped from 10% district coverage in 2014/15 to 43% in 2018/19 and the functional major manual stations have increased from 12 to 32 over the same period. The accuracy of seasonal forecasts improved from 60%-70% in 2014/15 to 70%-80% in 2018/19, with the lower limit for the first season and the upper limit for second season. However, the meteorological sub-sector has faced a number of challenges, which include; increased weather and climate variability due to climate change; rapidly changing technology which requires constant upgrade of the capital intensive infrastructure; rapid development in government priority sectors, which are exerting more demand for reliable weather and climate information; ever changing International Quality Management System (QMS) standards to which the country must comply; and the national innovative livelihood and survival strategies, which are rapidly changing (e.g. the national growing needs for Climate Smart Agriculture, which promotes a Green Economy among other benefits) the needs tailored information and data.

206. **The restoration of forests and tree cover by natural regeneration or by plantation or by agroforestry has not kept pace with the annual loss of forest cover and loss of individual trees.** Between 2016 and 2019 the forestry sub-sector contributed 3.5% of GDP per annum. Uganda's forests supply 88 % of all its energy needs, provide 61% of Uganda's tourism income and provides jobs for about 1 million people. Private commercial plantations have been promoted together with tree planting campaigns and about 3,500 ha of degraded natural forests have been restored and 60,000 ha were allocated to private developers for commercial tree plantation development, out of which 5,400 ha of new plantations have been established. A total of 950 km of external boundaries were resurveyed and marked. However, the restoration of forests and tree cover by natural regeneration or by plantation or by agroforestry has not kept pace with the annual loss of forest cover and loss of individual trees. As a result, the forest cover has declined from 24% (or 4.9 million ha) of Uganda's total land area in 1990 to 9% (1.83 million ha) in 2018, a reduction of 57% in just 25 years. This is majorly attributed to biomass fuel cooking/combustion with other auxiliary drivers such as expansion of agricultural land, sporadic urbanization, and income poverty, industrialization and inadequate incentives for private plantation of forests. The influx of refugees who heavily rely on natural resources has worsened the situation. Additionally, the existing penalties and enforcement mechanisms are inadequate to address the increasing impunity on forest encroachment.

207. **Wetlands have continued to provide domestic water estimated at USUSD 34 million per annum but degradation is alarming**. The demarcation of boundaries of critical wetlands has been ongoing and the restoration and protection of degraded wetlands has

been undertaken countrywide, as well. However, wetland degradation is over 70 times the rate of restoration. Over the period 1994 and 2015, 2.5% of the wetlands have been permanently lost and are no longer recoverable. The latest national land cover mapping, estimates wetlands coverage at 13% of the total land cover nationally. Of this, only 8.9% is intact, with 4.1% degraded by farmlands, tree plantations and houses. It is estimated that Uganda loses 846 km2 of its wetlands annually, the major causes of wetland degradation being poor farming practices, unplanned urbanization, expansion of informal settlements, excessive water abstraction, income poverty, poor intra and inter sector coordination with regards to continued issuance of land titles in wetlands, sand mining and industrialization with some of the demarcated business/industrial parks located in wetlands.

208. **A foundation has been laid to enable proper management of the environment but more needs to be done to achieve results**. The legal and regulatory framework is in place: enactment of the National Environment Act of 2019, review of the National Environment Management Policy, and preparation of guidelines and strategies, notably: the National Biodiversity Offset Strategy, Sustainable Mountain Strategy, guidelines for sound management of chemicals, Environment and Social Impact Assessment Guidelines and environment mainstreaming guidelines. In addition, restoration of fragile ecosystems including demarcation of riverbanks (160km) and restored degraded sites along riverbanks (200 ha) was initiated. Environmental compliance through monitoring, technical backstopping, ensuring environmental assessments and enforcement of the law, including supporting of livelihoods of communities through tree and fruit growing has also been ensured. However, the environment is increasingly under threat from both natural and man-made drivers of change including; poverty, rapid population growth, unplanned urbanisation, expansion of informal settlements, industrialisation, unregulated mining, low levels of awareness, inadequate information on critical issues and the impacts of climate change and variability among others. Fragile ecosystems including hilly and mountainous areas, riverbanks, lakeshores, wetlands, forests and rangelands are facing encroachment and degradation.

209. **Data on air pollution is sparse due to the absence of air pollution detection equipment and there is currently no framework for monitoring and regulating air pollution**. The National Environment Management Authority is only able to collect air pollution data in Kampala. Recent studies carried out on air quality in Kampala indicated that the city has the second worst air quality in Africa and that concentrations of particulate matter (PM2.5) were three times higher than the WHO air quality guidelines for ambient air (25 μg/m3). The air pollution problem is attributed to emissions from increased traffic and reconditioned motor vehicles, and other anthropogenic activities.

210. **There is significant increase in temperature at a rate of 0.520 per decade while some districts such as Gulu, Kitgum, Kotido and Kasese registered modest decrease in annual rainfall**. While Uganda’s contribution to climate change is negligible accounting for only 0.099 percent of global emissions, it is highly vulnerable to climate change impacts given its low coping capacity. Climate change effects such as frequent and prolonged dry spells as well as erratic and poorly distributed rainfall amplify the level of vulnerability

experienced by the majority of the population (68 per cent) that are dependent on rainfed agriculture as their source of livelihood. To compensate for the reduced productivity, farmers are forced to encroach on forests and wetlands. Hence, climate change becomes both a driver and a result of environmental degradation starting a vicious cycle of vulnerability.

9.3 Objectives

211. In order to address the above constraints, the objectives of this programme are to:

1) Assure availability of adequate and reliable quality fresh water resources for all uses;
2) Increase forest, tree and wetland coverage, restore bare hills and protect mountainous areas and rangelands;
3) Maintain and/or restore a clean, healthy, and productive environment;
4) Reduce climate change vulnerability and carbon footprint;
5) Reduce human and economic loss from natural hazards and disasters;
6) Increase incomes and employment through sustainable use and value addition to water, forests and other natural resources.

9.3.1 Interventions

212. In order to achieve the above objectives, NDPIII will prioritise the following interventions under this programme.

Table 9.1. Climate Change Interventions and Respective Actors

Interventions	Actors
Objective 1: Assure availability of adequate and reliable quality fresh water resources for all uses	
1. Improve coordination, planning, regulation and monitoring of water resources at catchment level: a. Develop and implement integrated catchment management plans for water resources catchment areas; b. Develop and implement wetland and forest management plans; c. Develop a national green growth financing and investment plan d. Demarcate and gazette conserved and degraded wetlands; e. Establish functional gender sensitive regional and zonal management committee for water resources; f. Ensure efficient utilization of water resources information for early warning and decision making; g. Maintain natural water bodies and reservoirs to enhance water storage capacity to meet water resource use requirements.	MWE, LGs, NEMA, NFA, MEMD, MoFA
2. Strengthen enforcement capacity for improved compliance levels:	MoLG, MWE, LGs, NEMA, NFA, MoLHUD, KCCA,

Interventions	Actors
a. Procure equipment for monitoring set standards on air, noise, water resources and soil pollution; b. Create a critical mass of human resource to undertake enforcement of set standards and regulations; c. Undertake sensitization campaigns on the permitted levels of pollution and penalties for exceeding thresholds thereof; d. Build partnerships with stakeholders such as KCCA, Uganda Police, Urban Authorities and non-state actors to enhance compliance.	Communities, CSOs, private sector, DPs, UWA, Cultural institutions
Objective 2: Increase forest, tree and wetland coverage and restore and protect hilly and mountainous areas and rangelands	
3. Strengthen conservation, restoration of forests, wetlands and water catchments and hilly and mountainous areas: a. Promote rural and urban plantation development and tree planting including the local and indigenous species; b. Formulate economic and social incentives for plantation forests; c. Promote application of performance based sustainable forest management criteria for all forest sector development aspects; d. Establish dedicated fuel wood plantations necessary to contribute to achieving or exceeding net biomass surplus levels; e. Scale up agroforestry as a climate smart agriculture practice; f. Ensure the protection of rangelands and mountain ecosystems; g. Implement national targets on threatened/endangered species, restoration of natural habitats, management of invasive alien species with support and participation of local communities and indigenous peoples; h. Identify and declare special conservation areas to raise the conservation status of areas outside protected areas that are important biodiversity areas. i. Integrate environmental management in all refugee response interventions	MWE, NEMA, NFA, MoLG, DLG, UWA, MLHUD
4. Mobilise and significantly increase financial resources from all sources to conserve and sustainably use natural resources	MWE, NEMA, MoFPED, NPA, UDB
5. Increase funding for promoting non-consumptive uses of the natural resources	MEMD, MoFPED
6. Assure a significant survival rate of planted tree seedlings	NFA, MWE, DLG, CSOs, Private Sector, Cultural Institutions & FBOs
Objective 3: Maintain and/or restore a clean, healthy, and productive environment;	
1. Reduce adverse per capita environmental impact of cities with maintenance of habitable air quality and innovative municipal and other waste management. Reduce waste generation through prevention, reduction, recycling and reuse to transition towards a circular economy	MEMD, MOWT, NEMA, MOLHUD, KCCA, MWE
2. Reduce adverse per capita environmental impact of cities with maintenance of habitable air quality and innovative municipal and other waste management.	MEMD, Urban Centres, NEMA

Interventions	Actors
a. Reduce waste generation through prevention, reduction, recycling and reuse to transition towards a circular economy	
3. Formulate and implement vehicle emission standards and sustainable management of chemicals to curtail the high levels of air, land and water pollution particularly in urban areas	MWE, UBOS, UNBS, MoFPED NPA, NEMA, CSOs Academia, DPs, MOWT
4. Integrate education for sustainable development in national curricular at all levels for an environmentally literate citizenry	MWE, MoES
5. Undertake applied research and innovation on sustainable consumption and production to ensure resource use efficiency to reduce domestic material consumption per capita	MTIC, MWE, UCPC, Academia, MSTI, UNCST
Objective 4: Reduce climate change vulnerability and carbon footprint	
1. Building capacity for climate change adaptation and mitigation including hazard/disaster risk reduction: a. Promote continuous integration of climate change and disaster risk reduction in planning, budgeting and reporting; b. Undertake issuance of carbon footprint certificates to support the industrial sector move towards carbon neutrality; c. Finalize the development of a national Green House Gas Inventory and its Monitoring, Reporting and Verification system. Review Uganda's 2015 Nationally Determined Contributions in light of local emerging issues and new global climate change action ambition.	MWE, MoLG, LGs, NEMA, NFA, OPM, Communities, CSOs, private sector, DPs, UWA
2. Promote natural resource accounting to improve the national income measurement; a. Undertake economic valuation of selected ecosystems and their services; b. Integrate natural capital and ecosystem service accounting into the system of national accounts; c. Build sectoral, institutional and local government capacity in natural capital accounting	MWE, MoLG, LGs, NEMA, NFA, MoLHUD, UBOS, Communities, CSOs, private sector, DPs, UWA, Cultural institutions
3. Mainstream climate change resilience in programmes and budgets with clear budgets lines and performance indicators a. Scale up use of renewable energy through off-grid electrification and Liquefied Petroleum Gas; b. Build gender response capacity in climate change monitoring and evaluation systems through integration in local government performance assessment and national monitoring frameworks; c. Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; d. Establish eco-friendly municipal and city waste collection and sorting facilities, and systems for recycling and reuse as a remedy for immense methane emissions from open landfills;	MWE, NPA, MoFPED, MoLG, LG, All Programme Leads

Interventions	Actors
e. Formulate green and climate change resilient and mitigative building codes for the housing sub-sector.	
4. Enhance outcomes from negotiation of carbon projects and develop bankable projects;	MWE (CCD), NFA, NEMA, MEMD
5. Develop local finance solutions tailored to micro, small and medium enterprises engaged in sustainable production and generation of climate change responsive technologies;	UDB, MWE, MOFPED, NPA, Private Sector
6. Build partnerships with stakeholders to formulate instruments such as climate and green bonds	UDB, MWE, MOFPED, NPA
Objective 5: Reduce human and economic loss from natural hazards and disasters	
1. Institutionalize programme disaster risk planning; a. Develop a check list for integration of disaster risk reduction in plans, projects and budgets; b. Develop a national Disaster Risk Management Plan; c. Undertake a disaster risk screening of the NDPIII and generate information to inform implementation planning; d. Finalize and disseminate the National Risk Atlas.	MWE, OPM, MoLG, LGs
2. Enhance access and uptake of meteorological information	UNMA, MICT & NG, MAAIF, DLG, MoLG MSTI, OPM
3. Install new and adequately equip and maintain existing automatic weather stations to ensure maximum functionality	UNMA
Objective 6: Increase incomes and employment through sustainable use and value addition to water resources, forests, rangelands and other natural resources	
1. Increase investment in value addition to environment and natural resources products and services. a. Enhance outcomes from negotiation of carbon projects and develop bankable projects; b. Increase funding for promoting non-consumptive uses of the natural resources; c. Mobilise and significantly increase financial resources from all sources to conserve and sustainably use natural resources; d. Promote forest cluster-based wood processing industries	MoLG, MWE, LGs, NEMA, NFA, Communities, CSOs, private sector, DPs, UWA, Cultural institutions, MTIC, MoSTI
2. Increase awareness on sustainable use and management of environment and natural resources; a. Develop a clear communication strategy on sustainable natural resource management; b. Undertake targeted sensitization campaigns with information packaged in forms tailored to the information needs of recipients; c. Build strategic partnerships with other players such as; private sector, cultural institutions, media and politicians	MWE, NEMA, NFA, MoES, MoICT & NG, MTWA, CSOs and Private Sector Cultural and FBOs

Interventions	Actors
3. Promote research, innovation and adoption of green appropriate technology to foster sustainable use and management of Water Resources & ENR; a. Develop a clear research agenda for this programme in partnership with relevant stakeholders; b. Undertake relevant applied research aligned to development needs and existing gaps	MWE MSTI, Academia/research institutions, NEMA, NFA, MWE
4. Promote forest cluster-based wood processing industries	NFA, MWE, MTIC, UIA
5. Support local community-based eco-tourism activities for areas that are rich in biodiversity or have attractive cultural heritage sites	NEMA, MWE, NFA, MTWA, MAAIF, MTIC, UDB, MSTI, UNCST
6. Promote payment for ecosystem services, biodiversity offsets and benefit sharing arising from use of biological resources	MWE

9.3.2 Implementation Reforms

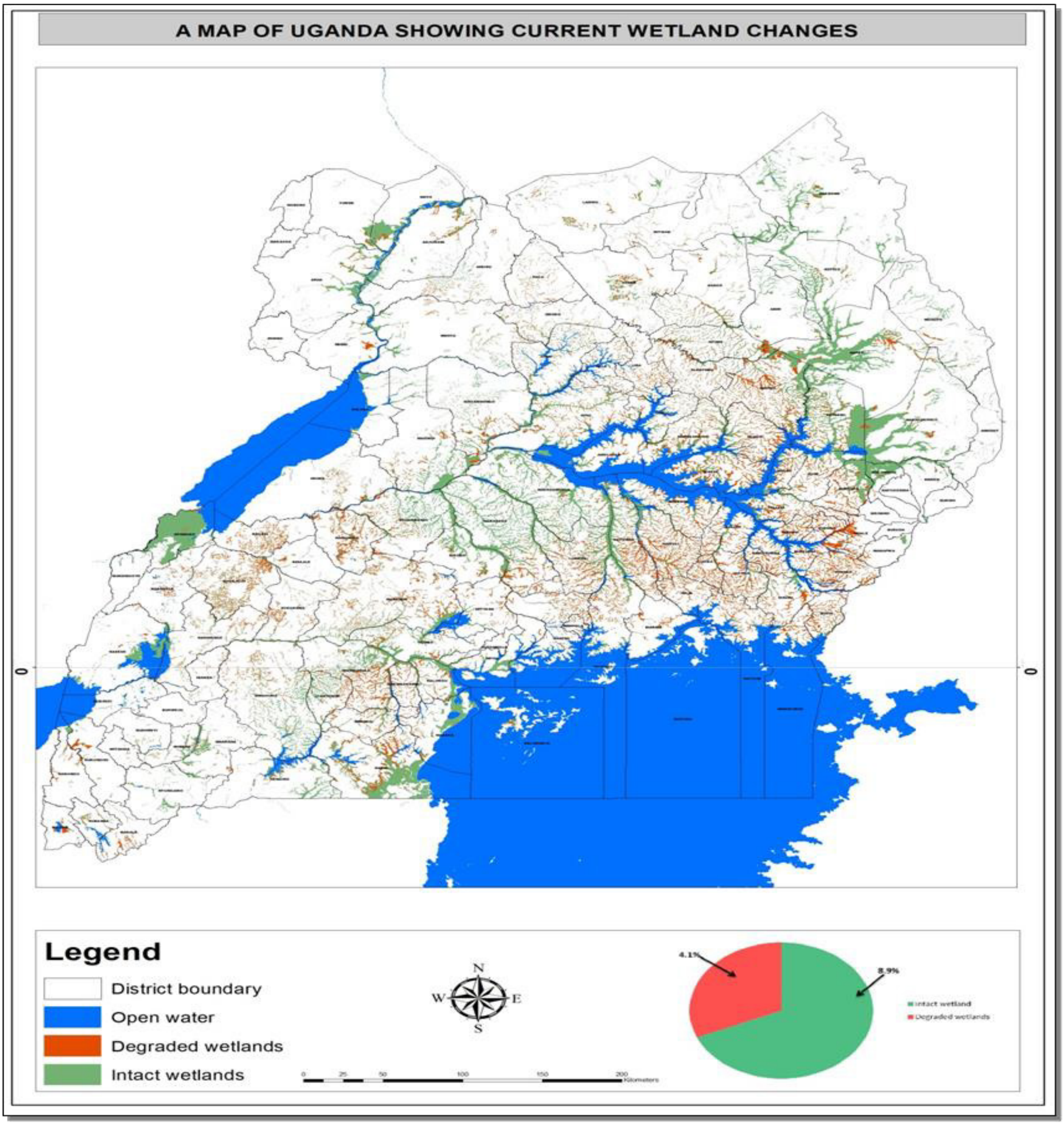
213. The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Transfer the command of environment police force from Ministry of Internal Affairs to NEMA and NFA to streamline appropriate swift response towards enforcement of environmental laws and curbing environment offenders.

2) Establish environment courts within the judicial system. The backlog in courts derails judgement on environmental crimes which require swift conclusion to avert irreversible cumulative environment degradation effects that continue to occur in the face of slow court processes.

3) Establish district focal points for the Uganda National Meteorological Authority to enhance dissemination of meteorological climate information in the local governments. Currently, this responsibility falls on the district Natural resource and environmental officers who already have a wide range of tasks and this approach has proven ineffective over the years.

Map 9.1. Spatial representation of current wetland degradation



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9.3.3 Programme Human Resource Requirements

214. The key skills and competencies required to fully implement this programme and realise expected goals in the next five years are highlighted in table 9.2.

Table 9.2: Qualifications and Skills Needs for: Climate Change, Natural Resources, Environment, and Water Management Program

QUALIFICATIONS AND SKILLS	Status	Estimated No
Animal Science specialists		100
Applied groundwater modelling specialists		40
Atmospheric Scientists		30
Biologists, Botanists, Zoologists and Related Professionals		(300)
Cartographers and Surveyors		80
Physical Science Technicians		90
Chemical Engineers		150
Chemical Processing Plant Controllers		142
Chemical Products Plant and Machine Operators		200
Climate Change Advisers		25
Conservation biology specialists		180
Customs and Border Inspectors		(1500)
Drought management and reservoir operations specialists		220
Ecological restoration specialists		160
Ecosystem biologist and biogeochemistry specialists		200
Ecotourism specialists		100
Environment Advisers		300
Environmental and Occupational Health and Hygiene Professionals		400
Environmental and Occupational Health Inspectors and Associates		350
Environmental Engineers		200
Environmental Law specialists		90
Environmental Management specialists		120
Environmental Protection Professionals		98
Environmental Scientists and Specialists		60
Faecal sludge management specialists		50
Forest ecology specialists		200
Geologists and Geophysicists		15
Geotechnical engineers and dredging specialists		20
Hydrogeology specialists		200
Hydrology and Hydraulics specialists		100
Integrated hydrological and river modelling specialists		40
Landscape Architects		55
Meteorologists		200
Mineral and Stone Processing Plant Operators		130
Miners and Quarriers		(3000)
Mining Engineers, Metallurgists and Related Professionals		200
Physicists and Astronomers		150
Police Inspectors and Detectives		(2000)
Political Scientist		35
Renewable Energy specialists		60
River flood analysis and modelling specialists		30
Soil Science and Soil Fertility specialists		45
Solid waste management specialists		(1200)
Surface Hydrology specialists		30
Town and Traffic Planners		42
Tracer Hydrology and Flow Systems analysis specialists		60
Urban flood management and disaster risk mitigation specialists		74
Urban water governance specialists		(300)
Water Science and Quality specialists		200

QUALIFICATIONS AND SKILLS	Status	Estimated No
Wetlands for livelihoods and conservation specialists		150
Wildlife Science specialists		200

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 10: PRIVATE SECTOR DEVELOPMENT

10.1Introduction

215. **The private sector is the engine of growth**. Successful businesses drive growth, create jobs and pay the taxes that finance services and investment. In particular, private sector-led industrial development plays a significant role in bringing about the much-needed structural changes that can set the economies on a path of sustained economic growth. In Uganda, the private sector generates 77 percent of formal jobs, contributes 80 percent of GDP, funds 60 percent of all investments and provides more than 80 percent of government domestic revenues.

216. **The aspiration of Agenda 2030 focuses on the development of policies that support productive activities, decent job creation, entrepreneurship**, creativity and innovation, and encourage formalization and growth of micro-, small- and medium-sized enterprises (SDG Goal 8) for inclusive growth and reduce inequality. Agenda 2063 also targets increasing the growth of SMEs to drive industrialization. This is complemented by EAC Vision 2050. The Uganda Vision 2040 aspires directly investing in strategic areas to stimulate the economy and facilitate private sector growth. In addition, the Vision pursues a quasi-market approach, which includes a mix of Government investments in strategic areas and private sector market driven actions.

217. **Nevertheless, Uganda's private sector is weak and uncompetitive to sustainably drive growth**. This is due to: (i) high cost of doing business, (ii) limited production and organisational capacity, (iii) absence of a strong supporting environment, (iv) weak enforcement of standards and the proliferation of counterfeits in the market, and (v) inadequate strategic and sustainable government investments and partnerships with the private sector in key growth areas.

218. **The goal of this programme is therefore to increase competitiveness of the private sector to drive sustainable inclusive growth**.

219. The key results to be achieved over the next five years (FY 20/21 to FY 24/25) are:

(i) Reduce the informal sector from 51 percent in 2018/19 to 45 percent in 2024/25;

(ii) Increase in non-commercial lending to the private sector in key growth sectors, from 1.5% in 2018/19 to 3% of GDP;

(iii) Increase the proportion of public contracts and sub-contracts that are awarded to local firms, from 30% to 50%;

(iv) Increase the value of exports from USD 3,450.7 million in 2017/18 to USD 4,973 million;

10.2Situation Analysis

220. **The private sector in Uganda is dominated by about 1.1 million micro, small and medium enterprises (MSMEs) all together employing approximately 2.5 million people**. Generally Ugandan firms face various growth and survival constraints on a number

of fronts and this undermines their development and thereby limiting their impact on the economy. With a non-homogeneous private sector, Uganda's micro, small and medium-sized firms as well as large enterprises face similar challenges but with differences in the magnitude.

221. **Uganda has registered some progress in reducing cost of doing business, but, there remains major financial and logistical impediments**. Uganda made a 16 percent improvement in doing business environment in five years, moving from 135th position in 2015 to the current 116th. Improvements were made mainly on contract enforcement. However, more needs to done in starting a business; dealing with construction permits; getting electricity; trading across borders; registering property; tax payment and getting affordable credit. An SME entrepreneur spends nearly a month to undertake 13 procedures to set up a new company (Enterprise Survey 2019). A majority of MSMEs (74 percent) are also constrained by access and cost of finance (The National Small Business Survey). Despite the reforms made in the financial sector, interest rates in Uganda remain high, between 20 – 23%, comparing unfavorably to its comparators. MSMEs access to finance is limited stringent financial requirement, particularly land collateral. This limits MSME's growth because they cannot acquire or absorb new technologies nor can they expand to compete in global markets or even strike business linkages with larger firms.

222. **Additionally, there are limited options for long-term financing which forces enterprises to use short term finance for long term projects**. The limited availability of long-term finance opportunities in Uganda is a result of three basic factors. First, formal savings that could be translated to long-term investments are low, with limited long-term savings in the retirement benefits and insurance sectors. Second, underdeveloped capital markets provide equity and debt finance to only a small number of large firms. Third, development finance institutions lack financial resources to expand their operations. This financing constraint affects local MSMEs more, since they cannot access finance on international markets. This is worsened by the public sector accumulation of domestic arrears owed to the private sector. 19 percent of business enterprises in the formal private sector indicated non-payment of debt and delayed payments for their services and products as one of the key challenges affecting their growth (the Manpower survey 2016/17).

223. **Despite the improvements in transport infrastructure, inefficiencies inform of timely access to electricity, water and ICT also increase the cost of doing**. Uganda's road connectivity and road quality has improved. But more needs to be done in water transport, air connectivity, and rail transport systems (GCI 2019). Population access to electricity at 20 percent, though is an improvement, is unsatisfactory. So is reliability of water supply at 103 out of 141. In addition, ICT adoption at 125 out of 141 is low.

224. **As a result of high costs of doing business, generally, large manufacturing firms' plant utilization capacity is at slightly above 50 percent.** Capacity utilization for MSMEs was estimated at 73.5 percent lower than Tanzania's 80 percent but just slightly higher than Kenya's 71 percent (World Bank Enterprise Survey, 2013). Further, many MSMEs continue operating informal systems. Those that have formalized keep many of their operations informal. Informal sector operators have identified five main incentives to

motivate them to formalize: (i) offering them lower registration fees; (ii) enabling them access affordable credit; (iii) increased awareness about the need to register; (iv) a shorter registration process; and (v) eligibility to support programmes upon registration, in that order (UBOS, 2018). The country has lacked a clear strategy and incentive mechanism for formalization of businesses except for taxation purposes.

225. **The private sector in Uganda suffers from weak capacity**. Despite high MSMEs startups (entrepreneurial risk at 38 out of 141), most of the startups do not last more than two years. Only 11.6% (half of Kenya's), of MSME firms are internationally-recognized with a quality certification. This is due to; Low levels of technology, limited uptake of innovations to continuously improve product quality, inadequate entrepreneurial ability, low skilled labour, and limited capacity to provide for innovation for new products. Support is needed by enterprises to enhance technology and mitigate climate change effects to boost productivity and improve profitability. Further, if Uganda is to harness its private sector potential a strategy to nurture and support MSMEs to grow and survive beyond five years will be key.

226. **In addition, the weak or lack of organization of producers, sellers, and other market players reduces their ability to benefit from economies of scale and profitability**. Following the weak available cooperative schemes, the capacity of the farmers, traders, and business enterprises to leverage each other's strength is weak. Ugandan manufacturers and suppliers are still finding challenges in sustaining production and honoring contractual obligations of reliably supplying output. Therefore, revamping the cooperative movements is one key way of mobilizing and organizing, private sector actors and resources, as well as increasing the formalization of private activities in the economy. Full operationalization of industrial parks is also critical.

227. **Weak Government support environment constrains the private sector potential.** Weaknesses exist in: prevention of non-tariff barriers in regional markets; competition policies and laws which encourage innovations; enforcement of standards and the proliferation of counterfeits. Also, inefficiencies exist in the legal frameworks such as settling disputes and land administration and public sector efficiency. In particular, the absence of an overarching local content policy hinders leveraging large public infrastructure investments to nurture the private sector. There are piece-meal policies and legislations especially in the oil and gas sector to support local content development. The Build Uganda Buy Uganda Policy also has components of promoting the local enterprises to benefit from a number of civil works and other services in the economy. Nonetheless, there is need to establish an overarching comprehensive national content policy to effectively boost the local private sector to harness the multitude of opportunities available

228. **To sum up, enhancing the private sector to drive growth will require reducing the cost of doing business, particularly increasing access to and reducing the cost of finance**. Also improving timely and efficiency access to utilities and reducing cumbersome procedures will be required. Further, government policy to nurture the private sector will be critical. While these apply to the entire private, special focus on nurturing and supporting MSMEs will be important to deliver inclusive growth and jobs. Towards this end,

Government needs to hand hold winners in MSMEs to enable them surmount survival, management and financial challenges. Here a holistic local content policy in public investments can be a powerful tool to strengthen the private sector.

10.3Objectives

229. In order to address the above constraints, the objectives of this programme are to:

1) Sustainably lower the costs of doing business;
2) Promote local content in public programmes;
3) Strengthen the enabling environment and enforcement of standards;
4) Strengthen the role of government in unlocking investment in strategic economic sectors;
5) Strengthen the organisational and institutional capacity of the private sector to drive growth.

10.3.1 Interventions

230. In order to achieve the above objectives, NDPIII will prioritise the following interventions under this programme

Table 10.1. Private Sector Interventions and Respective Actors

Interventions	Actors
Objective 1: Sustainably lower the costs of doing business	
1. Increase access to affordable credit largely targeting MSMEs a. Government owned commercial banks capitalized b. Set up a short-term development credit window for MSMEs	**MoFED**; Parliament; UDB; Post Bank; Housing Finance; Pride-Micro Finance; Microfinance Support Centre
2. Increase access to long-term finance a. Capitalize and strengthen UDB and ensuring a MSME financing window b. Support MSMEs to address survival and management capacity weaknesses c. Capitalise the Project Development Facilitation Fund d. Reform and expand pension sector	**MoFED;** UDB; UDC; Parliament; Post Bank; Housing Finance; Pride-Micro Finance; Microfinance Support Centre
3. Mobilize alternative financing sources to finance private investment; a. Continue reforms in the financial sector; b. Build private sector capacity to access Green financing and green growth response c. De-risk Sub-county skills-based enterprise associations (EMYOGA) d. Support the formation of cooperatives	**MoFPED;** MTIC; UDB; USE; UDC; POST BANK; CMA; UIA
4. Address non-financial factors leading to high costs of doing business	**UIA and PSFU**, IRA; BOU; TELECOM COMPANIES;

Interventions	Actors
	USE; MOFPED; CMA; MOFA; MTIC; NSSF; BOU; URBRA
Objective 2: Strengthen the organisational and institutional capacity of the private sector to drive growth	
1. Improve the management capacities of local enterprises through massive provision of Business Development Services geared towards improving firm capabilities; a. Business Development Services centres b. Corporate governance best practices adopted by MSMEs. c. Business Development Services framework established d. Local entrepreneurship skills developed e. Industry associations, chambers of commerce and trade unions strengthened f. National, regional and global business links created for registered local enterprises g. Automation of business processes increased	**MTIC & UIA**; ENTERPRISE UGANDA; PSFU; MICROFINANCE SUPPORT CENTRE; UMA; UDB; USSIA
2. Strengthening system capacities to enable and harness benefits of coordinated private sector activities a. Research and innovation facilities established, strengthened and are accessible to Micro, Small, and Medium Scale Enterprises (MSMEs). b. Product and market information systems developed c. The system of incubation centres strengthened to support growth of SMEs in strategic areas d. One stop centre for business registration and licensing established	**MTIC**; UIRI; MOSTI; UNCSI; EPRC; URSB
Objective 3: Promote local content in public programmes	
1. Develop and implement a holistic local content policy framework	**MoFPED;** MOTIC; MOGLSD; PPDA; UNBS; MEMD
2. Build the capacity of local construction industry to benefit from public investments in infrastructure	**MoWT;** MOTIC; MOGLSD; PPDA; UNBS; MEMD
Objective 4: Strengthen the role of government in unlocking investment in strategic economic sectors	
1. Undertake strategic and sustainable government investment and promote private sector partnerships in key growth areas	MOFPED, MOTIC, UDC, UIA, UFZA
2. Strengthening research and innovation capacity in support of private and public investment	MoSTI, UNCST, UIRI, Academia, NPA, Private sector
Objective 5: Strengthen the enabling environment and enforcement of standards	
1. Rationalize and harmonizing standards institutions, and policies at local and regional level;	MTIC, UIA, UNBS, PSFU, UMA, URSB
2. Review of legal and regulatory frameworks to remove restrictive legislation and fast track pending bills;	PARLIAMENT, PPDA, UIA, MOJCA, UDB, UDC
3. Improve data availability on the private sector; and Improving Dialogue between the private sector and Government	UBOS, PSFU, NPA, MoFPED

Interventions	Actors
4. Create appropriate incentives and regulatory frameworks to attract the private sector to finance green growth	MOFPED, MWE, MTIC, NPA, PSFU, UDC, UMA

10.3.2 Implementation Reforms

231. The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Provide a tax policy that incentivizes formalization and supports MSMEs.
2) Simplify business registration services at district level by restoring the commercial offices, making it easy to obtain goods market information and build MSMEs capacity.
3) Digitization of business processes across all sectors geared towards formalization of businesses and reinforcing Domestic resource mobilization efforts.
4) Build digital financial literacy for MSMEs and the informal sector players
5) Creating incentives for registration and reporting business progress.
6) Empowering the one-stop centers already established at UIA to make prompt decisions on matters raised by the private sector without delays.
7) Local enterprises should be provided equal treatment while competing for opportunities created by the investment code.
8) Incentivize existing public banks to widen the range of services and products that increase access to credit in priority sectors.
9) Implementing an incentives framework for certified institutions to provide training facilities for specialized skills (as centers of excellence) needed in key private sector activities using the National Human Resources Development Plan.

CHAPTER 11: MANUFACTURING

11.1 Introduction

232. **Manufacturing is essential for growth**. It has a high potential for enhanced economies of scale for factor productivity and deeper, more dynamic and stronger forward and backward linkages with other sectors. In addition, it has a greater diversification into a variety of economic activities. With a huge agricultural and mineral potential, good weather, a young and expanding population and a strategic location at the heart of regional trading blocks, development of a robust manufacturing sector is expected to accelerate Uganda's industrialization agenda.

233. **The aspiration of Agenda 2030, among other things, is to promote inclusive and sustainable industrialisation and foster innovation (SDG 9)** and promote full and productive employment and decent work for all (SGD 8). Aspiration 1 of Agenda 2063 aims at transforming Africa's economies through beneficiation from Africa's natural resources, manufacturing, industrialization and value addition. EAC Vision 2050 targets leveraging industrialization for structural transformation and improved intra-regional and global trade. Specifically, it targets increasing manufacturing contribution to GDP by 10%. Uganda Vision 2040 states that a strong and competitive industrial base is important to create employment, advance technology and a resilient economy. To achieve this, the Vision targets; developing industries that utilise the local potential, attracting industries that can be relocated from fast emerging economies, offshoring industries, establishing economic lifeline industries, and investing in strategic industries.

234. **However, Uganda's manufacturing sub-sector is small, uses basic technology and limited creation of quality and gainful jobs**. This is due to: (i) lack of requisite infrastructure to support manufacturing; (ii) limited access to financing mechanisms that can support manufacturing; (iii) weak SMEs in the industrial sector; (iv) proliferation of substandard goods and counterfeits on the market; (v) Poor linkage between trade and industrial development (vi) lack of a support system to nurture innovations to full commercialisation (vii) high cost of doing business and (viii) weak legal framework to support and promote manufacturing.

235. **The goal of this programme therefore, is to increase the product range and scale for import replacement and improved terms of trade.**

The key results to be achieved over the next five years will be:

i) Increase the share of manufactured exports to total exports from 12.3% to 18%;
ii) Increase the industrial sector contribution to GDP from 27.1% to 29%;
iii) Increase contribution of manufacturing to industrial GDP from 15.4% to 20%;
iv) Increase the share of manufacturing jobs to total formal jobs from 9.8% to 10%;
v) Increase share of labour force employed in the industrial sector from 7.4% to 10%;
vi) Increase manufacturing value added from as a percentage of GDP from 8.3% to 10%.

11.2 Situational analysis

236. **Uganda's industrial sector mainly comprises manufacturing, mining and quarrying, construction, and utilities** (electricity and water supply) sub-sectors, whose industries are categorized into formal and informal. The manufacturing sub-sector is composed of food processing, manufacture of beverages and tobacco, textiles clothing and footwear, paper and printing, chemicals, petroleum and other chemical products, non-metallic minerals, basic metals and metal products among others. Of these, food processing, beverages and tobacco industry, saw milling, paper and printing, bricks and cement, steel and metal products, and textile clothing and footwear industry, comprise the biggest share. Specifically, industries include: 11 operational Sugar factories, 25 tea processing, 5 cement, 2 vertically integrated textile mills, 7 leather tanning and 23 involved in the iron and steel industry.

237. **Currently the industrial sector's contribution to GDP is 27.6 percent; with mining and quarrying contributing 2.0 percent manufacturing 15.4 percent**, electricity 1.3 percent; water 2.3 percent and construction 6.6 percent. This level of industrial contribution to GDP is below the 35% mark for countries aiming to achieve middle-income status. The services sector makes the biggest contribution to GDP, standing at 43.2 percent, with agriculture taking the second place at 22.6 percent. Uganda's manufacturing sub-sector consists predominantly of last-stage (end-product) assembly and raw material processing. All these are low value-added activities and when it comes to export, such products are very sensitive to market price fluctuations which make forex earning very unpredictable. There is thus a need to move away from this pattern if Vision 2040 is to be realised.

238. **This programme targets light and heavy manufacturing**. Priority light manufacturing industries will include: textiles and apparels, shoes; assembly of electronic items; paper and paper products; chemicals, petro-chemicals and pharmaceuticals; and cereal and cereal products. Priority heavy manufacturing will include: iron and steel; cement; tiles; sanitaryware, plumbing, fixtures and fittings and automobile assembly. This prioritisation is based on analysis of Uganda's importation trends and the changing world trends for the manufacturing power houses like China. This combination will facilitate job creation and production for both the domestic and international markets.

239. **To support and promote the manufacturing activities, there is need for appropriate infrastructure especially in terms of transport (road and railway) plus adequate energy**. Over the NDPII period, the country made significant progress in terms of road construction, extending the network to cover most parts of the country. Additionally, a number of power plants have been constructed, which now puts the generation capacity close to 2,000 MW. In 2018, a quarterly tariff adjustment of power was applied. Since its introduction there has been a reduction in power tariffs by between 2% to 0.8% for medium and large industrial users respectively. There has also been progress towards the development of industrial parks including Kampala Industrial and Business Park (KIBP) Namanve, Luzira, Bweyogerere, Jinja, Mbale, Soroti, Mbarara SME, Kasese and Karamoja Industrial Parks. This has created indirect employment of approximately 20,000 jobs for the construction workers and local artisans.

240. **However, the infrastructure remains inadequate (transportation infrastructure and energy; power outages, low voltage for large consumers), which increase costs of production, disrupt production and lowers the sales revenue of manufacturing firms**. The annual growth of demand for electricity in Uganda remains high at 12 percent. This is worsened by high electricity tariffs which stand at about USD 0.16 per kWh. Weak transportation infrastructure and attendant high costs erode Uganda's competitiveness at regional and international levels. Transport related costs to business in Uganda is estimated at 40percent which is twice the cost of the same services in other countries.

241. **Nurturing manufacturing requires affordable long-term financing in order to produce products at competitive prices**. To meet this need, the Uganda Development Bank was revived and Uganda Development Corporation was recapitalised. However, their capitalisation still remains low and its interest rates still remain closely similar to those of existing commercial banks, which hinders the sector growth.

242. **Low quality and fake manufactured products constrain the sector as they outcompete genuine products**. In FY2017/18, 357 standards were developed; 899 product certification permits were issued; 1,128 market outlet inspections were conducted; 119,149 consignment of imported goods were inspected; 12,799 equipment were calibrated; and 772,059 equipment were verified. Although, the pre-export verification for conformity to standards (PVOC) started, its impact is yet to be felt to the level that is expected. Unscrupulous traders are exploiting the relaxed trade regime in Uganda to import fake goods on the local market, or even producing these items. The cost of complying with standards is as high as 0.07 – 0.1% of turnover compared to acceptable levels of 0.02% of turnover. There is direct need to devise other means to fight substandard goods to supplement the amendments to the law which have increased the penalties for production and distribution of sub-standard goods by producers and marketers. Apart from sub-standard items, there are also counterfeits which involve illegally replicating the well-known brand names and designs on their packaging and labels with cheaper and sometimes substandard versions e.g. fake electronic appliances, shoes, adulterated coffee, rice, agricultural inputs, locally made soft drinks mainly water and juices, among others. Major investors now look out on how counterfeits are managed before investing in any country. The Anti-counterfeit Bill to fight counterfeits has been planned to be drafted but to date has not been passed by Parliament. There is need for expeditious enactment of this law and strengthening of UNBS to properly man the products on the market.

243. **Support system to nurture innovations to commercialisation is key to manufacturing**. Manufacturing is boosted through establishment of industries that stem from innovations coming from the country's research and development institutions and system. Over the NDPII period, a number of initiatives have been made towards this including the establishment of the Ministry of Science, Technology and Innovation, the Presidential Innovations Fund, among others. However, challenges still remain as most of the initiatives to facilitate innovations to full commercialisation are scattered and disjointed across the sectors. With many innovators unsure of where to go to receive the necessary support.

244. **Progress in ease of doing business can unlock manufacturing potential**. Government launched the e-licencing portal as a central repository for all business licences in the country in a bid to reap benefits of e-registration such as transparency, one stop access to all relevant information and accountability and reduced opportunities for corruption through the use of online transactions. However, implementation has been slow and investors and manufacturers in particular continue to face high cost of doing business ranging from bureaucratic procurement processes, multiple licences and other fee requirements; difficulty in linking to logistical support services, the inability to obtain skilled nationals locally to run factories; public sector corruption and the general challenges of being a land-locked country. Uganda's rank on the Ease of Doing business deteriorated to 122 in 2017 when it had been 115 in 2016 (a slide of seven places) in a one year. While it is also important to note that the year before had seen a leap forwards by 13 places in between 2016 and 2015. There is therefore need to make further reforms in improving the framework within which the economy is supported to grow by strengthening electronic systems in submission of export and import documentation; reviewing business and procurement laws and regulations in ways that reduce bureaucracy, duplication and tackling public sector corruption especially in enforcement of contracts.

245. **The industry sector is dominated by small and medium enterprises (SMEs), which make up some 93.5% of firms operating in the sector**. These are usually not able to reap the benefits of economies of scale and, given the strong correlation between firm size and export capacity, consequently have difficulties competing internationally. Of the top 500 firms in Africa in 2017, Uganda has only three companies on the list, and pointedly, none are in the manufacturing sub-sector. Manufacturing primarily engages in end-product assembly and raw materials processing, producing low value-added goods such as food and beverages, wood and wood products, textiles, leather, and metallic and non-metallic fabrication. Furthermore, manufacturing value-added per capita remains low at around USD 27 compared to USD 57 for low-income countries and USD 1,277 for the global average. In addition, medium and high-technology activities do not play a major role in manufacturing exports, constituting just 13.8 percent of total manufactured exports, lower than regional neighbours Kenya and Tanzania.

246. **Conducive legal framework to support and promote manufacturing is crucial.** The Ministry in charge of Trade and Cooperatives launched the Buy Ugandan Build Uganda (BUBU) Policy together with its implementation strategy in 2017. This has been provided for in both the Industrial Policy and the Trade Policy approved by Government in 2008. BUBU has played a key role in ensuring the utilisation of local natural resources in the country's production processes. For example, the use of cement and iron bars locally procured in the construction of Karuma Hydro Power Project, procurement of office furniture from Uganda Prisons and supply of uniform locally contracted to all government hospitals. This notwithstanding, implementation of these policies and legal provisions still remains slow. Furthermore, the tax regime is not phased across the manufacturing value chain, favouring processors more that manufacturers i.e it is constant irrespective of the extent of value addition thus laying a heavier burden on those who invest deeper upstream than those on the downstream ends of the value chains. There is need for revision of the tax

regime to encourage and attract more investment in manufacturing and for a deliberate effort to support local production and consumption. The local content law should also be enacted such that these policies are enforceable.

247. Over the next five years, to nurture manufacturing Uganda needs to focus on: i) constructing 4 fully serviced industrial parks; (ii) strengthening SMEs in the industrial sector; (iii) promoting the use of appropriate technology in manufacturing processes; (iv) investment in support systems to nurture innovations to commercialisation; (v) increase the utilisation of the country's natural resources for production; (vi) improving labour productivity in manufacturing; vii) attracting FDI in the manufacturing sector and linking these to local manufacturers and SMEs to be part of the suppliers of the global value chain; and (viii) strengthening the legal framework to support and promote manufacturing.

11.3Objectives

248. In order to address the above constraints, the objectives of this programme are to:

1. Develop the requisite infrastructure to support manufacturing in line with Uganda's planned growth corridors (triangle);
2. Expand the reach and access to appropriate Business Development Services for manufacturing SMEs;
3. Promote the transfer of skills and localisation of appropriate technology to facilitate manufacturing;
4. Increase access to regional and international markets;
5. Strengthen the legal and institutional framework to support manufacturing.

11.3.1 Interventions

249. In order to achieve the above objectives, NDPIII will prioritise the following interventions under this programme.

Table 11.2. Manufacturing Interventions and Respective Actors

Intervention	Actors
Objective 1: Develop the requisite infrastructure to support manufacturing	
1. Construct 4 fully serviced industrial parks (1 per region)	MTIC, MFPED, MoWT, MEMD, MoWE, UIA, UFZA, UIRI, Development Partners
2. Provide appropriate financing mechanisms to support manufacturing	MTIC, MFPED, UDB,
3. Develop the transport networks to support manufacturing especially in resources areas like Muko, Karamoja region; road, water, rail and air	MTIC, MFPED, MoWT, MEMD, MoWE, Development Partners
4. Develop infrastructure linking the neighbouring countries especially DRC and South Sudan	MTIC, MFPED, MoWT,
Objective 2: Expand the reach and access to appropriate Business Development Services for manufacturing SMEs	
1. Support SMEs to acquire appropriate technology	MTIC, MoSTI, MoICT, UIRI, UMA, USSIA

Intervention	Actors
2. Train entrepreneurs on use of standards in production and use of clustering initiative	MTIC, MoES, UNBS, UMA, Makerere University
3. Connect SMEs to large scale production firms for subcontracting	MTIC, UIA
4. Conduct market promotions for SMEs products through trade fairs and other avenues	MTIC, USSIA, UMA
Objective 3: Increase access to regional and international markets	
1. Expand the range of manufacturing standards and enforce applicable regulations	MTIC, MoFA, UNBS, UEPB,
2. Establish a sliding scale export incentive regime	MTIC, MFPED, URA, UMA
3. Establish a sliding scale export financing rate	MTIC, MFPED, URA, UEPB, UMA
4. Establish 4 export logistics centres	MTIC, MFPED, URA, UEPB, UMA, Development Partners,
5. Establish 4 border markets to facilitate trade with regional neighbours (especially at the South Sudan and Congo borders)	MTIC, MoFA, URA, UMA, UEPB, Development Partners
6. Sign bilateral agreements to guarantee market access	MTIC, MoFA, MoJCA, Cabinet, Parliament
7. Strengthen information management and negotiation for greater access to targeted markets	MTIC, MoFA, UEPB,
Objective 4: Strengthen the legal and institutional framework to support manufacturing	
1. Enact and enforce the local content law	MTIC, MoJCA, Cabinet, Parliament
2. Enforce the laws on counterfeits and poor-quality products	MTIC, MoIA, UNBS, UPF
3. Change the tax regime to attract more investors in manufacturing; downstream parts of the value chains	MTIC, MoJCA, URA, Cabinet, Parliament, UMA

11.3.2 Programme Human Resource Requirements

250. The key skills and competencies required to fully implement this programme and realise expected goals in the next five years are highlighted in table 11.2.

Table 11.2: Qualifications and Skills Needs for: Manufacturing Program

QUALIFICATIONS AND SKILLS	Status	Estimated No
Automotive Specialty Technicians		231
Chemical Plant and System Operators		310
Chemical Technicians		250
Civil Engineering specialists		180
Computer-Controlled Machine Tool Operators		400
Conveyors, Cranes and Industrial Trucks drivers		(300)
Commercial law specialists		140
Electrical and Electronic Engineering specialists		300
Electrical and Electronic Equipment Assemblers		200
Electromechanical Equipment Assemblers		350
Fabric and Apparel Patternmaker specialists		240
Financial, controllers, managers and accountants.		(300)
Hydroelectric Plant specialists		330
Industrial Engineers		480
Industrial Machinery Mechanics		310
Industrial Production Managers		220
Inspectors, Testers, Sorters, Samplers, and Weighers		245

QUALIFICATIONS AND SKILLS	Status	Estimated No
Maintenance and Repair Engineers		165
Manufacturing / Production Supervisors		400
Manufacturing / Production Engineers		110
Manufacturing Production Technicians		240
Material Engineers		300
Mechanical Engineering Technicians		160
Mechatronic specialists		80
Machinists		100
Metallurgy and Materials Science		120
Molders, Shapers, and Casters		150
Multiple Machine Tool Setters and Operators		200
Occupational Health and Safety Specialists		200
Ophthalmic Laboratory specialists		250
Plastic Technology specialists		320
Power Plant Operators		250
Precision Instrument and Equipment Repairers		300
Process Engineering specialists		180
Quality Control Engineers and Specialists		230
Manufacturing Robotics Technicians and specialists		200
Safety Engineering specialists		150
Sales and marketing specialists		(800)
Security and Fire Alarm Systems Installers		(400)
International trade negotiators		100
Trade brokers		150
Lean Manufacturing specialists		200
Team assembling specialists		230
Transport Planning specialists		(400)
Welders and Welding Technology specialists		(800)

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 12: INTEGRATED TRANSPORT INFRASTRUCTURE AND SERVICES

12.1 Introduction

251. **The development of a country depends on the availability of its infrastructural facilities**. Infrastructure plays an important role in contributing to a higher rate of economic growth leading to improvement of the country's standard of living. As a land-locked country, Uganda's physical infrastructure is an integral part of its regional and international competitiveness. Productivity in virtually every sector of the economy is affected by the quality and performance of the country's transportation, water, power supply and other types of infrastructure. Access to and efficiency of infrastructure is therefore of paramount importance to Uganda's competitiveness. There are four modes of transport used in the country; road, rail, water and air. However, road transport is the most dominant mode that accounts for over 90 percent of freight and passenger traffic.

252. **The aspiration of Agenda 2030 is to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation by 2030** (SDG 9). Similarly, Agenda 2063 (Goal 10) aspiration is to put in place the necessary infrastructure to support Africa's accelerated integration and growth, technological transformation, trade and development. Relatedly, infrastructure is the first of the five pillars in the EAC Vision 2050 that seeks to ensure access to modern, fast and affordable infrastructure that is essential for economic development and wellbeing of the population. Additionally, the Uganda Vision 2040 aims to have access to world class infrastructure and services, and modern technology to improve productivity and production.

253. **However, transport infrastructure and services are still inadequate and disjointed** due to: (i) transport investment prioritization being biased towards road transport over other modes; (ii) high cost of transport infrastructure and services; (iii) inadequate integrated land use and transport planning; (iv) Inadequate transport asset management; and (v) Weak and disjointed policy, legal, regulatory, and institutional framework for infrastructure and services.

254. **The goal of the programme is therefore, to develop a seamless, safe, inclusive and sustainable multi-modal transport system.**

Table 12.1. Key results to be achieved over the next five years

Key result area	Indicators		Baseline	2024/25
1.Reduce average travel time (min per Km)	Average travel time (min/km)	1.1 Within GKMA	4.1	3.5
		1.2 Within other Cities	2.5	2.0
		1.3 National roads	1.0	1.0
		1.4 District Roads	1.0	1.0
		1.5 Inland water transport (MW to PB in Hrs)	18Hrs	12 Hrs
		1.6 Passenger rail services	0.75	0.5
		1.7 Freight rail services (in Hrs)	264	72
2.Reduce freight transportation	Freight transportation costs (per ton per km)	2.1 Inland (on Road): tarmac	802	500
		2.2 Inland (on Road): Murrum	1,130	1,000
		2.3 Inland (on Rail):	0.04	0.02
		2.4 Inland (on water):	500	300

Key result area	Indicators		Baseline	2024/25
costs (per ton per km):		2.5 From coast to Kampala (on Road) - USD	0.77	0.60
		2.6 From coast to Kampala (on Rail) (in USD):	0.05	0.03
		2.7 From coast (MW) to Kampala (PB) on water - USD	0.06	0.04
3.Reduce unit cost of building transport infrastructure, per Km	Unit cost of building transport infrastructure, per Km	3.1 Upgrading roads to paved standard (Bn/per Km)	3.1	3.0
		3.2 Rehabilitation/ reconstruction of paved roads (Bn/per Km)	1.8	1.75
		3.3 Average cost for construction of unpaved/ gravel road (in mn)	40	30
		3.4 Rehabilitation of metre gauge rail infrastructure (Bn/ Km)	5	4.5
		3.5 Establishment of Aids to Navigation	0	5
		3.6 Establishment of search and rescue facilities (USD)	200,000	180,000
4 **Increase stock of transport infrastructure**	Stock of transport infrastructure	4.1 Kms of paved National Roads	4,971	7,500
		4.2 Kms of paved urban roads	1,248	1,748
		4.3 Permanent way /railway road (Km)	262	462
		4.4 Construction of Roll-on Roll-off vessels (international)	5	7
		4.5 Construction of domestic (Ro'Pax) passenger ferries	10	15
		4.6 Ferry crossings	9	13
5 **Increase average infrastructure life span**	Average infrastructure life span	5.1 Tarmac roads – years		20 years
		5.2 First class murram		2 years
6 **Reduce fatality and causality per mode of transport**	Fatality per 100,000 persons per mode of transport (road, water, rail)	6.1 Road	3,689	3,289
		6.2 Water	160	50

12.2 Situation Analysis

252 **The development of an integrated transport infrastructure network is recognized as one of the major drivers of economic growth**. The transport subsector had a direct contribution to GDP, ranging between USD0.5 and 0.9 billion, and averaging 3.1 percent for the period 2008-2016. The roads subsector is dominant, estimated to take 90 percent of the transport sector budget. The country's infrastructure and services has made notable achievements and challenges analysed along the main stages of the value chain as follows.

253 **Uganda's transport network is unbalanced, dominated by road transport**. During FY2018/19, 96.5 percent and 95 percent of freight cargo and passenger traffic, respectively, was delivered by road. As a result, the country is not able to optimally utilize the different transport modes to efficiently and effectively service the other sectors of the economy. The performance of the four modes of transport are discussed as follows;

(a) **Road Transport.** The Country's total road network is 159,366 km comprising of 20,854 km of National Roads; 38,603 km of District Roads; 19,959 km of Urban Roads and 79,947 km of Community Access Roads. The paved national road network comprises 4,971 km (23.83 percent) paved national roads, 145km (0.38 percent) paved district roads and 1,188km (5.95 percent) paved urban roads. Although the paved national road network improved from 19 percent in 2008, to 23.83 percent in ten years, it is 1,029 km short of the NDPII target of 6,000 km by FY2019/20. The National Roads network in fair to good condition is 93 percent for paved roads and 75 percent for unpaved roads against the target of 82 percent and 66 percent, respectively.

(b) **Air transport.** The country has got only one operational International Airport at Entebbe which is currently being expanded and upgraded to accommodate demand of increasing passengers and cargo traffic. Additionally, government is constructing a new international airport at Kabaale in Hoima district, to serve demands of the oil industry. In regard to regional and local transport, there are thirteen (13) regional aerodromes under management of the Uganda Civil Aviation Authority (UCAA). These include; Arua, Gulu, Soroti, Kasese, Kisoro, Jinja, Kidepo, Lira, Pakuba, Tororo, Masindi, Mbarara and Moroto. Government intends to upgrade five (Arua, Gulu, Pakuba, Kidepo and Kasese) regional aerodromes to promote trade and tourism. Furthermore, there are 20 airports and airstrips that are privately managed. Government in 2018/2019 revamped the national airline with acquisition of four (4) aircrafts (Bombardier for CRJ900).

(c) **Railway Transport.** Railways operations were under a concession from October 2006 up to January 2018. This arrangement however, failed to meet the desired goals. The operations have been run as a state-owned enterprise (SOE) since termination of the concession. The railway network consists of 1,266 km of metre gauge line of which currently only 330 km is operational, comprising the core network and a section from Mbale to Tororo (51 km). During the FY2018/19, the Corporation delivered a total of 196,789 tons against an NDPII target of 144,210 tons and 529,596 passengers. A total of 3,031 trains were run during the financial year 2018/2019. The current capacity of the rolling stock is very low due to long periods of deferred maintenance of the assets. The Corporation had 4 mainline locomotives out of which 3 were active during the FY2018/19, with an average availability of about 40 percent. URC currently has 1,317wagons available on the network, out of which 600 were active by the end of June 2019. URC currently operates only one wagon ferry MV Kaawa which is inadequate for the anticipated volumes on the Southern route. The railway sub sector has the following challenges: limited railways network coverage and ageing infrastructure; poor maintenance regime for locomotives, wagons, coaches and handling equipment; stiff competition from road transport; an unfavorable tax regime with respect to fuel; encroachment on the railway corridor; low train speeds (25kph); low cargo volumes as most cargo use road transport and three times more inbound (imports) traffic than outbound (exports).

(d) **Maritime/ Water transport.** Maritime transport infrastructure and services have remained underdeveloped and are dominated by small motorized and non-motorized boats. Uganda's water transport systems have three components namely: wagon ferry services on Lake Victoria; Short distance road vehicle ferries acting as 'road bridges'; and Informal sector operations by individual canoes. The principal lake and river transport system includes Lake Victoria, Lake Kyoga, Lake Albert and Lake George, together with River Kagera, the Victoria Nile and the Albert Nile. Currently, both motorized and non-motorized vessels ply the above lakes and rivers. Some water routes are served by wagon ferries while others are served by road bridge vehicle ferries. The wagon ferry routes are Port Bell-Mwanza and Port Bell-Kisumu which also connect to the rail network. There are seven bridge vehicles ferries including three on Lake Victoria, two on Victoria Nile, one on Lake Albert and one on Albert Nile. The wagon ferry routes of Port Bell –Mwanza and Port Bell-Kisumu remain without any national carrier on them. Due to the lack of wagon ferries, poor connecting infrastructure and often a lack of appropriate rolling stock, rail transport as the traditional transport system has deteriorated, and private sector operations have become increasingly important on Lake Victoria.

254 **Access across the lakes/rivers in Uganda at points where the national road network terminates is provided by ferries**. At the close of FY2016/2017, UNRA had 9 operational ferries linking national roads as shown in table 12.2.

Table 12.2: Performance of UNRA ferry services (UNRA 2018/19)

No.	Ferry Crossing	Districts Linked by The Ferry	% Availability (%)	Utilization (%)	Passengers Carried
1	Laropi - Umi	Moyo and Adjumani	100	107	856,875
2	Obongi - Sinyanya	Moyo and Adjumani	100	102	629,409
3	Bisina - Agule	Katakwi-Kumi	100	101	334,578
4	Masindi - Kungu	Kiryandongo and Apac	99	109	214,694
5	Namasale – Zengebe	Amolatar and Nakasongala	99	97	352,970
6	Nakiwogo - Buwaya	Wakiso and Entebbe	98	98	499,926
7	Mbulamuti Ferry	Kayunga and Kamuli	98	88	792,976
8	Kiyindi - Buvuma	Kiyindi – Buvuma	93	93	194,871
9	Wanseko - Panyimur	Buliisa and Nebbi	86	92	237,073
	Total		97	99	4,113,372

255 **The major challenges affecting the development of an efficient and effective transport system include**; low capacity of local contractors; collusion and escalation of land compensation costs of development projects such as SGR and Bukasa port, procurement delays caused by whistle-blowers and administrative reviews, and inadequate funding for road maintenance; limited land for proposed expansion of Entebbe International Airport, insufficient funding for maintenance and development of upcountry airports and aerodromes, poor state of railway assets, vandalism/theft of railway track materials, encroachment on railway reserves, scarcity of good quality local road construction materials (gravel, sand, etc.), among others.

256 **Cost of transport infrastructure and services.** Over the past 15 – 20 years, the road sector has experienced significant increases in prices of road construction and maintenance. According to MoWT, 2019[4], the average construction cost for upgrading roads to paved standard with bituminous surface treatment during the FY201818/19 was UGX 3.1billion per kilometre as compared to UGX 2.36billion per kilometre in the previous year. The average cost of reconstruction/rehabilitation of the paved roads was UGX 1.8 billion per kilometre as compared to UGX 1.96billion per kilometre for the previous year. A general rise in the unit cost of road maintenance can be observed from table 11.3.

Table 12.3. Road Maintenance Unit Costs in the period FY 2017/18 – FY 2018/19

Indicator	FY 2017/18	FY 2018/19
	1,000USD/km	
1.1 District Roads – Periodic Maintenance	5.1	5.3
1.2 District Roads – Routine Maintenance	0.6 - 1.5	0.7 - 1.6
1.3 Urban Roads – Periodic Maintenance, paved	13.5	13.8
1.4 Urban Roads – Routine Manual Maintenance, Paved	1.8 – 2.3	2.1 – 2.5
1.5 Urban Roads – Routine Mechanized Maintenance, Paved	3.7 – 4.7	3.8 – 4.8
1.6 Urban Roads – Periodic Maintenance, Unpaved	6.9 – 13.6	7.2 – 13.9
1.7 Urban Roads – Routine Maintenance, Unpaved	0.6 – 2.2	0.7 – 2.4

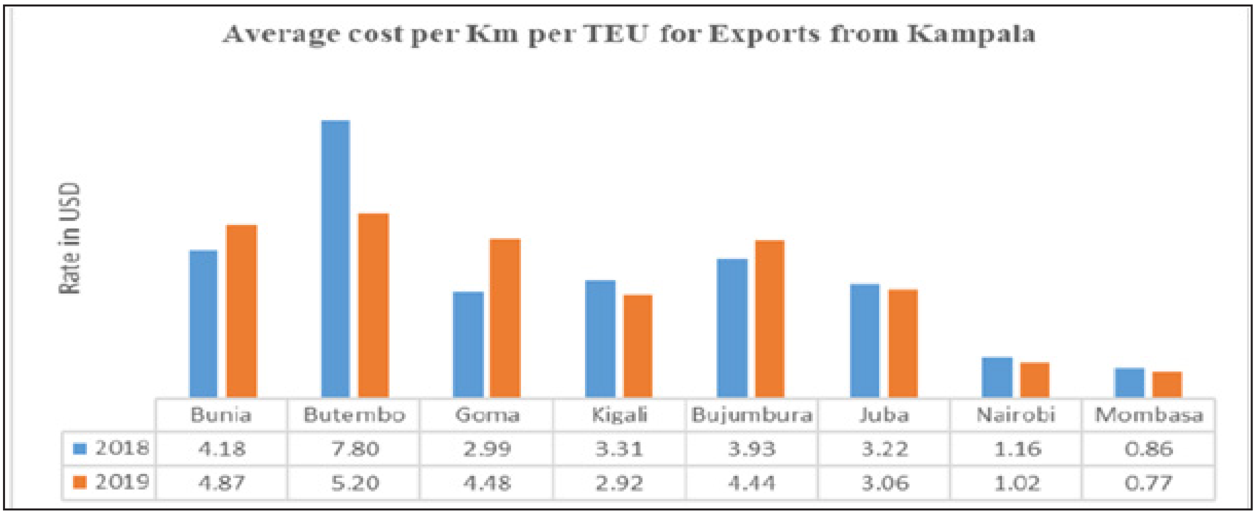
257 **The high costs of road development are as a result of acquiring Right of Way (RoW).** The huge costs associated with compensation of Project Affected Persons (PAPs) has become a major issue significantly escalating costs of infrastructure and increasing project implementation delays. This problem is further worsened by speculators who acquire and/or develop land along the proposed transport infrastructure corridors in anticipation of high compensation from government. Examples of projects where land acquisition has escalated costs of project implementation include Kampala-Entebbe Expressway (51.4Km) with land and property compensation valued at UShs331 billion (or USD89million), Kampala Northern Bypass (17.5Km long) where land and property compensation worth UShs 83billion (equivalent to USD22 million) was approved. Other affected projects include Port construction at Bukasa near Kampala, where a total allocation of UGX.29 billion (equivalent to USD7.8 million) was made, and the Standard Gauge Railway. Government has also lost land along existing transport infrastructure (right of way) to illegal encroachers, mainly due to lack of enforcement of existing laws. Encroachers have made developments in wetlands, forests, along railway lines, air strips and aerodromes that have been non-operational for a long time. Ironically, encroachers expect and receive compensation when government needs to upgrade/expand existing transport infrastructure.

258 **The cost[5] of transporting goods along the Central Corridor is USD1.91 per km, compared to USD 0.77 per km over the northern corridor**. Generally, the cost of import through the Mombasa port is slightly lower than that through the Dar-es-Salaam port. The

[4] Annual Sector Performance Report FY2018/19, September 2019, Ministry of Works and Transport
[5] Performance Monitoring Report, December 2018

average cost per km of exports from Kampala through the Northern Corridor is shown in Figure 12.1.

Figure 12.1: Average cost per km per TEU for Exports to Kampala (Northern Corridor 14th Transport Observatory report, June 2019



259 **Weak local construction industry.** About 80% of civil works contracts in Uganda are undertaken by foreign/International road construction companies and a big portion of the road construction requirements are imported. In addition, large portions of the contracts are in foreign currency. The local construction industry is weak in terms of equipment, technical and financial capacity. Only 28 percent of all road contracts signed in FY2018/19 were allocated to local contractors. This was slightly higher than the 24 percent allocation of FY2017/18. Furthermore, credit lines for local contractors are expensive which make it difficult for them to compete with other contractors whose governments provide subsidies and other forms of support. Unable to afford modern and appropriate equipment, local contractors' resort to use of any available equipment, for example the use of a wheel loader for opening a road. This leads to inefficiency and early deterioration of the road equipment. Consequently, the country is unable to develop a minimum threshold of competent national expertise for construction, operation and maintenance of national transport infrastructure. In addition, delays in payment of works certificates have led to the collapse of some local contractors.

260 **The costs of infrastructure projects are also accelerated by procurement**. For instance, section 90 and 91 of the PPDA act, 2003, require that once any complaint is received, the procurement process should be suspended until that complaint is settled. This requirement needs to be reviewed.

Integrated land use and transport planning

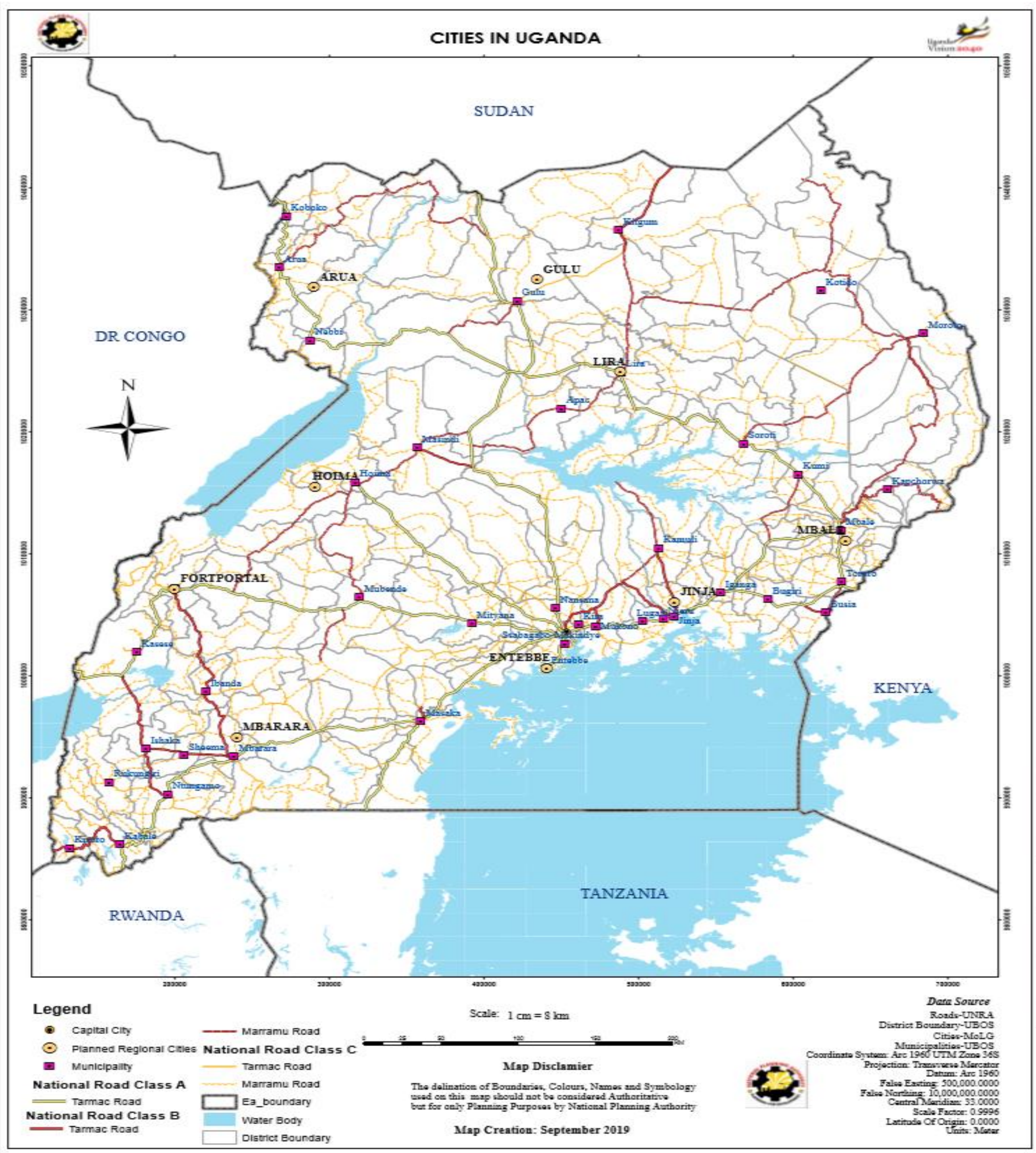
261 **Urban sprawl:** The urban population in Uganda is steadily increasing and was about 6.4 million, equivalent to about 18 percent of the total population in 2014. The urban centers are concentrated around the Northern Economic Corridor and Kampala City. About 64 percent of the population in Uganda's urban centers resides within a 50 km radius from

the main transport corridors, and about 37 percent of the total population in Kampala also lives within a 50 km radius from the City Centre. All the big urban areas in Uganda suffer from congestion. However, modern traffic management measures are not being deployed to reduce congestion, improve driver behavior, utilize ICT, and reduce the burden on traffic police.

262 **Obsolete standards:** The existing standards and designs of transport infrastructure and services do not match current demands of the Human Rights Based Approach (HRBA) such as roadside stations, public service vehicles with access and communication provisions for disadvantaged groups, and roads with safe pedestrian barriers. In addition, development of inland water and railway transport is guided by the Uganda Railways Corporation Act, (1992) that is outdated.

263 **Poor connectivity:** Efficient transport services facilitate exploitation of opportunities in tourism, agriculture, trade and minerals, and oil and Gas. However, the inadequacy of transport connectivity is constraining growth in these sectors. **Error! Reference source not found.** shows city interconnectivity by road transport and how its inadequacy limits exploitation of development opportunities. The connectivity is majorly for: tourism; economic activity in rural areas under agriculture; petroleum development areas; and regional, domestic, international trade.

Map 12.1. City connectivity by road



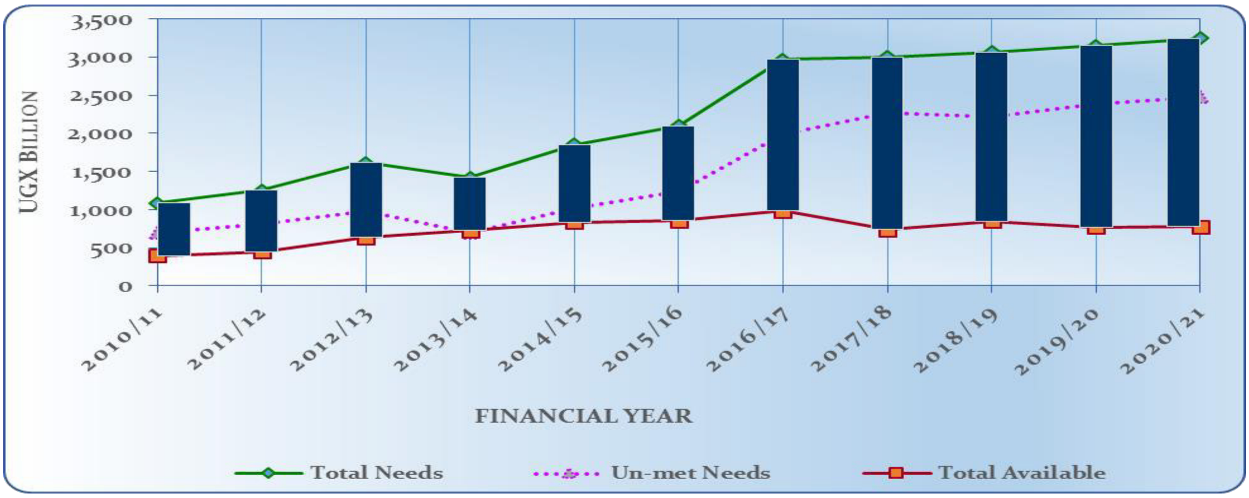
264 **Integrated transport Planning:** Explosive growth in vehicular population coupled with inadequate transport planning has led to traffic congestion along the roads and highways, road crashes, high road maintenance costs, increase in air pollution, delay in reaching the city centre and delay to access business centers. The motorized vehicle fleet increased by 83 percent from 739,036 in 2012 to 1,355,090 in 2018, of which more than 50 percent are estimated to be in the GKMA. Boda-bodas increased by 192 percent from 354,000 in 2010 to 1.034 million in 2018. Research, development and innovation need to be carried out to provide evidence-based solutions to address the poor management of traffic flow, limited capacity of urban transport infrastructure, inefficient public transport, pollution, road crashes and fatalities, indiscipline of road users and weak enforcement of traffic

regulations. The 15-year National Transport Master Plan, including the Transport Master Plan for Greater Kampala Metropolitan Area approved by Cabinet in 2008 (NTMP/GKMA 2008-2023) covered all modes of transport except oil and gas pipelines. However, more than 80 percent of the investments and expenses were spent on roads.

Transport asset management

265 **Maintenance:** Uganda's transport network is poorly maintained, with available funding for road maintenance meeting only 27.7 percent of needs in FY2018/19. The Uganda Road Fund net allocation to road maintenance needs was UGX 512.24 billion against total requirements estimated at UGX 1.807 trillion, leaving a shortfall of UGX 1.295Trillion (71.7 percent of total). The funding for road maintenance and rehabilitation is not yet linked to road usage represented by both traffic loading (cargo freight) and traffic volumes (number of vehicles). Trends of road maintenance needs, road maintenance financing and the un-met needs (including funding under USMID, RRP, KIIDP and PRDP), since FY2010/11 and as projected to FY2020/21 are shown in **Error! Reference source not found.**1.3.

Figure 12.2: Trends of road financing (URF annual performance report, 2018/19)



266 **Road Safety:** Road safety has remained a challenge on Uganda's roads. Although the number of fatalities per 10,000 vehicles has been reducing over the years; in absolute terms, road traffic fatalities have risen steadily from 2,845 fatalities in 2014/15 to 3,500 fatalities in 2017/18. This translates into approximately 10 people dying daily as a result of road accidents on Uganda's roads. Both walking and cycling are safe and sustainable modes of transport, and as such they should be promoted and given priority over motorized modes especially in urban areas. In order to discourage residents from using private cars, the public transport needs to be efficient and attractive, and integrated with non-motorized transport (NMT).

Policy, legal, regulatory and institutional framework

267 Uganda does not have an approved national transport policy. Consequently, there are existing gaps in planning procedures; policy, objectives, plans, programs, projects, and

evaluation. In addition, the existing legal frame works have a number of gaps that need to be addressed, as indicated in Table 12.4These affect the operations of transport infrastructure and services.

Table 12.4. Summary of legislative gaps

Sub sector	Gaps
Road	1. Classification of roads 2. Road infrastructure for Road safety, including provisions for pedestrians and cyclists 3. Storm water drainage, 4. Damage to the road and its furniture, 5. Use of Public-Private-Partnerships in construction, management and maintenance[6]
Rail	1. Alignment of URC's current status with the URC Act and PERD Act 2. Independent regulation of safety, plus investigation of accidents. 3. Use of more environmentally friendly operating procedures and efficiencies, including regulations requiring use of greener locomotives.
Inland Water Transport	1. Certification of vessels plus measures to prevent marine pollution 2. Strengthened safety regulations, including, search and rescue 3. Promotion of private sector participation in water transport development
Air Transport	1. Splitting of regulatory and operational functions of CAA 2. Need for strengthened security measures, including provision for an Accident and Investigation Unit 3. Regulations for the pilots and operation of drones
Urban Transport	1. Powers to franchise bus routes

268 Furthermore, public transport regulation is weak especially in urban areas. The taxi industry is self-regulated and services are provided by 14-seater minibuses, which are not suited to mass transport. Services are not timetabled or integrated, and vehicles are generally poorly maintained. The problem is further worsened by use of unregulated motorcycles ('boda-bodas') and tricycles ('tukutuku'). Institutional and regulatory mechanisms for improving public transport and the provision of mass transit are lacking. In addition, some institutions have conflicting mandates.

269 **Inadequate human resource capacity**: There are significant skill gaps in the areas of transport planning, road network planning and design, railway and maritime pilots, ground instructors, railway engineers and technicians and marine experts. These and other specialized competencies are hard to attract and retain in the sector due to market demand and better pay offered by the private sector.

270 **Lack of a transport integrated Management Information System:** The transport infrastructure and services sector lack an integrated MIS. Together with the lack of real-time surveillance mechanisms on the various transport modes, this incapacitates the quick application of solutions to say change the signal timings and/or respond to a road/inland water accident, as well as the limited use of results to inform policy decisions.

271 Over the next five years, Uganda needs to focus on; (i) investing in a resilient inter-modal transport infrastructure; (ii) reducing on the high cost of transport infrastructure and

[6] Section 2(1)(a) of the Public Private Partnerships Act 2015 states that the Act applies, inter alia, to the design, construction, maintenance and operation of road infrastructure and services.

services; (iii) undertaking an integrated land use and transport planning; (iv) investing in transport asset management; and (v) addressing the policy, legal, regulatory, and institutional framework for infrastructure and services.

12.3 Objectives

272 In order to address the above constraints, the objectives of this programme are to:

1) Optimize transport infrastructure and services investment across all modes;
2) Prioritize transport asset management;
3) Promote integrated land use and transport planning;
4) Reduce the cost of transport infrastructure and services;
5) Strengthen, and harmonize policy, legal, regulatory, and institutional framework for infrastructure and services;
6) Transport interconnectivity in the Eastern Region to promote intraregional trade and reduce poverty.

12.3.1 Program Interventions

273 In order to achieve the above objectives, NDPIII will prioritize the following interventions under this program:

Table 12.5. Infrastructure Interventions and Respective Actors

Interventions	Actors
Objective 1: Optimize transport infrastructure and services investment across all modes	
1. Implement an integrated multi-modal transportation hub (air, rail, road, water etc.)	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
2. Construct and upgrade strategic transport infrastructure (tourism, oil, minerals and agriculture)	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
3. Increase capacity of existing transport infrastructure and services	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
4. Implement the mass rapid transport system (Light Rail Transport (LRT), BRT/Mass Bus Transport (MBT) and cable cars)	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
5. Provide Non-Motorized Transport infrastructure within urban areas	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
6. Rationalize development partner and government financing conditions	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
Objective 2: Prioritize transport asset management	
1. Rehabilitate and maintain transport infrastructure	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
2. Enforce loading limits	URA, UNRA, UPF, URC, CAA
3. Adopt cost-efficient technologies to reduce maintenance backlog	MoWT, UNRA, URC, CAA,
4. Develop local construction hire pools	MoFPED, & MoWT
Objective 3: Promote integrated land use and transport planning	

Interventions	Actors
1. Acquire infrastructure/ utility corridors	MoWT, MoFPED, MEMD, MoLHUD, UNOC, NITA, MoLG, MoJCA, UEDCL, UETCL, PAU UNRA, URC, CAA, URF
2. Develop and strengthen transport planning capacity	UNRA, URC, CAA, URF, MoFPED, MoWT, MoLG
3. Develop the National Transport Masterplan aligned to the National Physical Development Plan	MoWT, MLHUD, UNRA, URC, CAA, URF
4. Develop Transit-Oriented developments along transport infrastructure corridors (such as roadside stations)	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
Objective 4: Reduce the cost of transport infrastructure and services	
1. Implement cost-efficient technologies for provision of transport infrastructure and services	MoWT, UNRA, URC, CAA,
2. Strengthen local construction capacity (industries, construction companies, access to finance, human resource etc.)	MoWT,UNRA, URC, CAA,
3. Promote Research, Development and Innovation (RDI)	UNRA, URC, CAA, URF, MoFPED, MoWT, MoLHUD, PPDA, MoLG, MoJCA
Objective 5: Strengthen and harmonize policy, legal, regulatory and institutional framework for infrastructure and services	
1. Review, update and develop transport infrastructure and services policies, regulations and standards and laws	MoWT
2. Enforce relevant transport infrastructure and services policy, legal, regulatory and institutional frameworks	MoWT, MoLG, MoLHUD, UPF, UNRA, CAA, URC,
3. Streamline governance and coordination of transport infrastructure and services	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
4. Monitor and evaluate transport infrastructure and services policy, legal and regulatory framework	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
Objective 6: Increase transport interconnectivity in the eastern region to promote intra-regional trade and reduce poverty	
1. Upgrade transport infrastructure around L. Kyoga to facilitate connections across the Lake (linking Nakasongola, Lango, Teso and Busoga through tarmacking of roads around the lake and introduction of ferry services on the lake).	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
2. Rehabilitate of the meter-gauge railway (including Jinja/ Bukakata to Bukasa inland port	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,
3. Upgrade transport infrastructure particularly in the Karamoja area to promote mineral exploitation and industrialization in that area	MoWT, MoFPED, MoLHUD, PPDA, MoLG, MoJCA, UNRA, URC, CAA, URF,

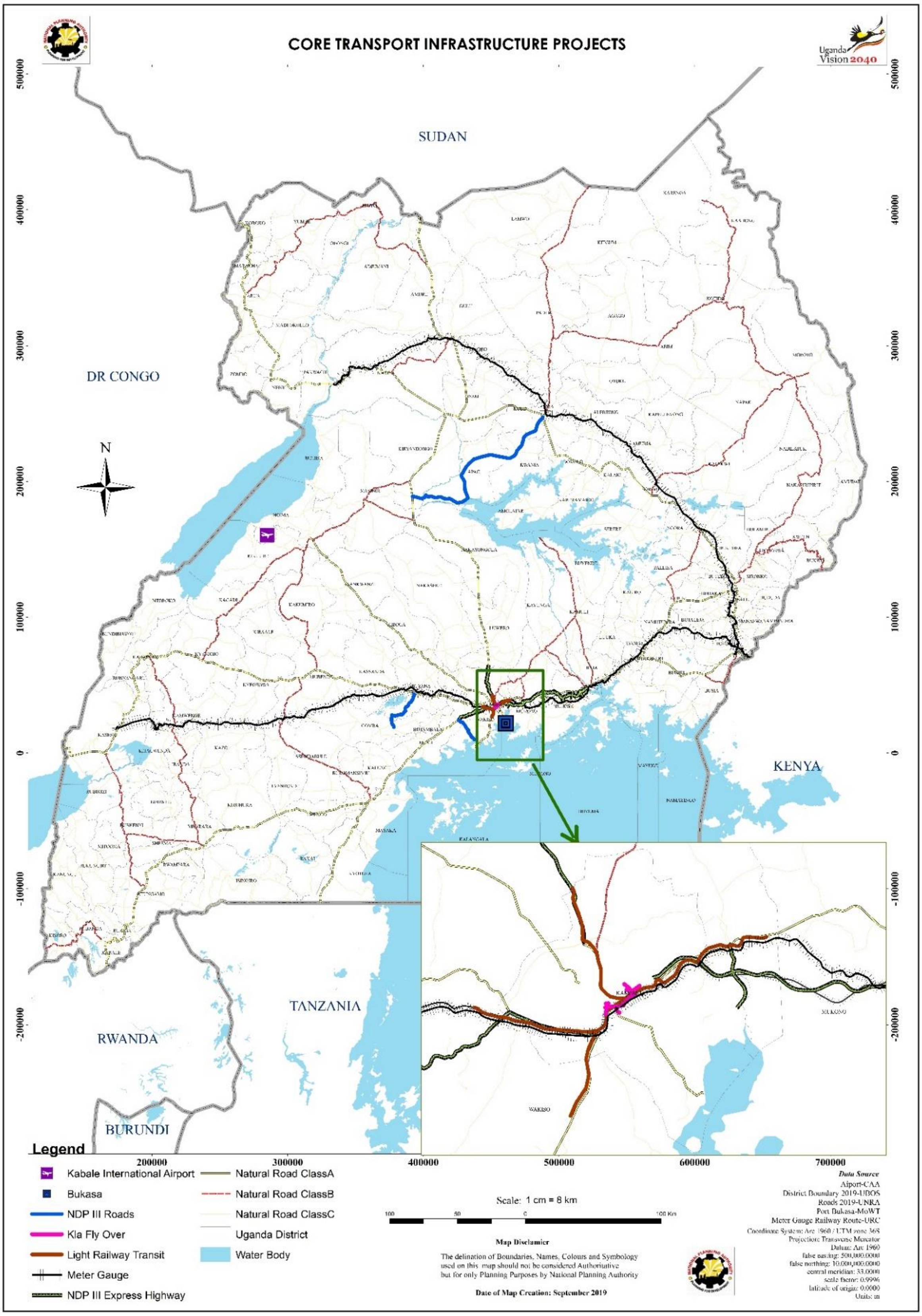
12.3.2 Implementation Reforms

274 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Develop and implement service and service delivery standards against which performance will be accessed.

2) Strengthen planning and public investment management capacity for effective implementation of projects.

Map 12.1. Core Transport Infrastructure Projects



12.3.3 Programme Human Resource Requirements

275 The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in table 12.6.

Table 12.6: Qualifications and Skills Needs for: Integrated Transport Infrastructure and Services Program

QUALIFICATIONS AND SKILLS	Status	Estimated No
Air Traffic Controllers		43
Air Traffic Safety Electronics Technicians		80
Aircraft Baggage Handler		(250)
Aircraft Load Controller		(90)
Aircraft Pilots and Related Associate Professionals		120
Airline Ground Crew		210
Airline management specialists		25
Applications Programmers		(280)
Automotive Electrician		201
Aviation Manager		(35)
Civil Engineering Labourers		90
Civil Engineering Technicians		110
Civil Engineers		150
Commercial Cleaner		(120)
Crane Operator		(140)
Database Designers and Administrators		(100)
Deck Officer		(300)
Deckhand		(200)
Driving Instructors		(400)
Electronics Engineering Technicians		210
Flight Examiner		30
Flight Instructor		45
Flight Operations Inspector		55
Forklift Driver		(180)
Freight Handler		(250)
Furniture Handler		(280)
Hoist Operator		170
Import-Export Clerk		(310)
Information and Communications Technology Sales Professionals		(200)
Information Technology Trainers		150
Lift Operator		(350)
Marine Engine Driver		35
Marine Surveyor		20
Mechanical Engineering Technicians		100
Mechanical Engineers		80
Motor Mechanic		(600)
Motor Vehicle Parts and Accessories Fitter		(500)
Panel Beater		(400)
Railway operations managers		40
Railway Safety and Control Systems specialists		20
Railway Track Worker		20
Ship's Engineer		25
Ship's Master		20
Ships' Deck Officers and Pilots		20
Ships' Engineers		15
Signalling Technicians		20

QUALIFICATIONS AND SKILLS	Status	Estimated No
Software Developers		70
Supply and Distribution Manager		(150)
Supply Logistics Clerk		(200)
Systems Administrators		(300)
Systems Analysts		(250)
Track Maintenance Technicians		(300)
Train Controller		40
Tram Drivers		50
Transport and Dispatch Clerk		(190)
Transport Planning specialists		50
Transport Service Manager		30
Vehicle Body Builder and Trimmer		(80)
Vehicle Painter		(200)
Web and Multimedia Developers		(150)
Works Safety Officer		(80)

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 13: ENERGY DEVELOPMENT

13.1 Introduction

276 **The energy industry's contribution to transformation cannot be overstated**. The availability of reliable energy supply is critical for economic growth, poverty reduction, as well as the social and cultural transformation of society. The impact of growth on the demand and consumption of energy is usually experienced through expanded industrial and service sectors and increased income levels. Sustainable development and utilization of energy resources is required to allow the current and future generations meet their energy needs.

277 **The aspiration of Agenda 2030 is to achieve universal access to electricity by 2030** (SDG 7). This is complemented by Agenda 2063 (Aspiration 1). Furthermore, SDG 9 calls for building resilient infrastructure, promoting inclusive and sustainable industrialization as well as fostering innovation. In particular, the EAC Vision 2050 sets an ambitious target of increasing the energy production from 3,965MW in 2014 to an estimated 70,570MW in 2030. Additionally, the Uganda Vision 2040 aims to have access to clean, affordable and reliable energy to facilitate industrialisation, among others.

278 **However, the access to reliable clean energy is still low** due to: (i) over reliance on biomass sources in the energy mix; (ii) constrained electricity transmission and distribution infrastructure; (iii) limited productive use of energy; (iv) long lead time of energy projects; (v) low levels of energy efficiency; and (vi) uncoordinated intra and inter sectoral planning.

279 **The goal of the programme is therefore, to increase access and consumption of clean energy.**

280 The key results to be achieved over the next five years are:

(i) Increase primary energy consumption from 15.20 million tonnes of oil equivalent to 21.74 million tonnes in 2025;

(ii) Increase proportion of the population with access to electricity from 24% in FY2018/19 to 60%;

(iii) Increase per capita electricity consumption from 100 kWh in FY2018/19 to 578kWh;

(iv) Reduce share of biomass Energy used for cooking from 85% in FY2018/19 to 50%;

(v) Increase the share of clean energy used for cooking from 15% in FY2018/19 to 50%;

(vi) Increase Transmission capacity from 2354km in 2018/19 to 4354km of High voltage[7] transmission lines; and

[7] High voltage refers to 132kV-400kV

(vii) Increase grid reliability to 90%.

13.2Situation Analysis

281 **Uganda's energy mix is biased towards biomass**. The primary energy consumption increased by 9.8% from 13.84 million tonnes in 2016 to 15.20 million tonnes of oil equivalent in 2018 (Energy Balance 2018). The energy consumption mix comprises oil products, bio mass and electricity. Biomass contributes 87% in form of firewood, charcoal and crop residues. This has adverse socioeconomic implications on health, environment, gender and household productivity. Annually Uganda losses 120,000 hectares of forest cover of which 60% (72,000 hectares) is due to charcoal and firewood. A Ugandan household emits 30 tonnes of carbon per year compared to 5 tonnes in UK. Biomass is followed by oil products accounting for 11% and electricity at 2%. Households (63.5%) comprise the largest energy consumer group followed by industry (20.1%), transportation (8.2%), commercial/public (3.4%,) and others (4.3%).

282 **Biomass is Uganda's predominant cooking fuel used by the population with 85% using firewood and 13% using charcoal, mainly in the urban and peri-urban areas**. The total charcoal demand is 2.09 million tonnes as of 2019 generating employment for about 200,000 people in production, transportation and trade. Most of the firewood is obtained by cutting forests which has significantly contributed to the reduction in forest cover. Currently the country suffers a biodegradation loss of USD 2.3billion, 25% of which is wood fuel.

283 **The total installed electricity generation capacity now stands at 1360 MW including grid and off grid supply (FY 2018/19**). This is set to increase to about 1,800 MW in 2020 after Karuma is fully commissioned and other small generation plants come onboard in FY2020/21. Most of the electricity is generated from hydro (79.5% large and small plants), thermal plants 8.7%, co-generation 8.2%, solar 3.5% with the remaining technologies including Diesel and Biomass constituting about 0.1%. Generation capacity is constrained by the long lead time of energy projects. For instance, it takes on average about 10-years from design to commissioning of a hydro energy project. Additionally, there is inadequate planning for an appropriate energy generation mix to meet the needs of the country.

284 **In regard to transmission, the country is constrained by inadequate evacuation of power and limited electricity transmission infrastructure coverage** (Map 12.1). Inability to evacuate power presents financial loss to the Government from deemed energy clauses in Power Purchase Agreements. However, over the past five years, a total of 629 km of high voltage electricity transmission line have been added to improve the network which currently stands at 2,258 km. Construction of an additional 518 km of transmission lines is ongoing, including; the 400kV Karuma-Kawanda; the 400kV Karuma-Olwiyo; the 132 KV Karuma-Lira and the Agago-Achwa Lira. However, even with these additions, some parts of the country remain uncovered including; Karamoja, Muko and West Nile.

285 **Electricity distribution is characterized by a dilapidated network, multiple and uncoordinated players and use of distribution network for transmission over long**

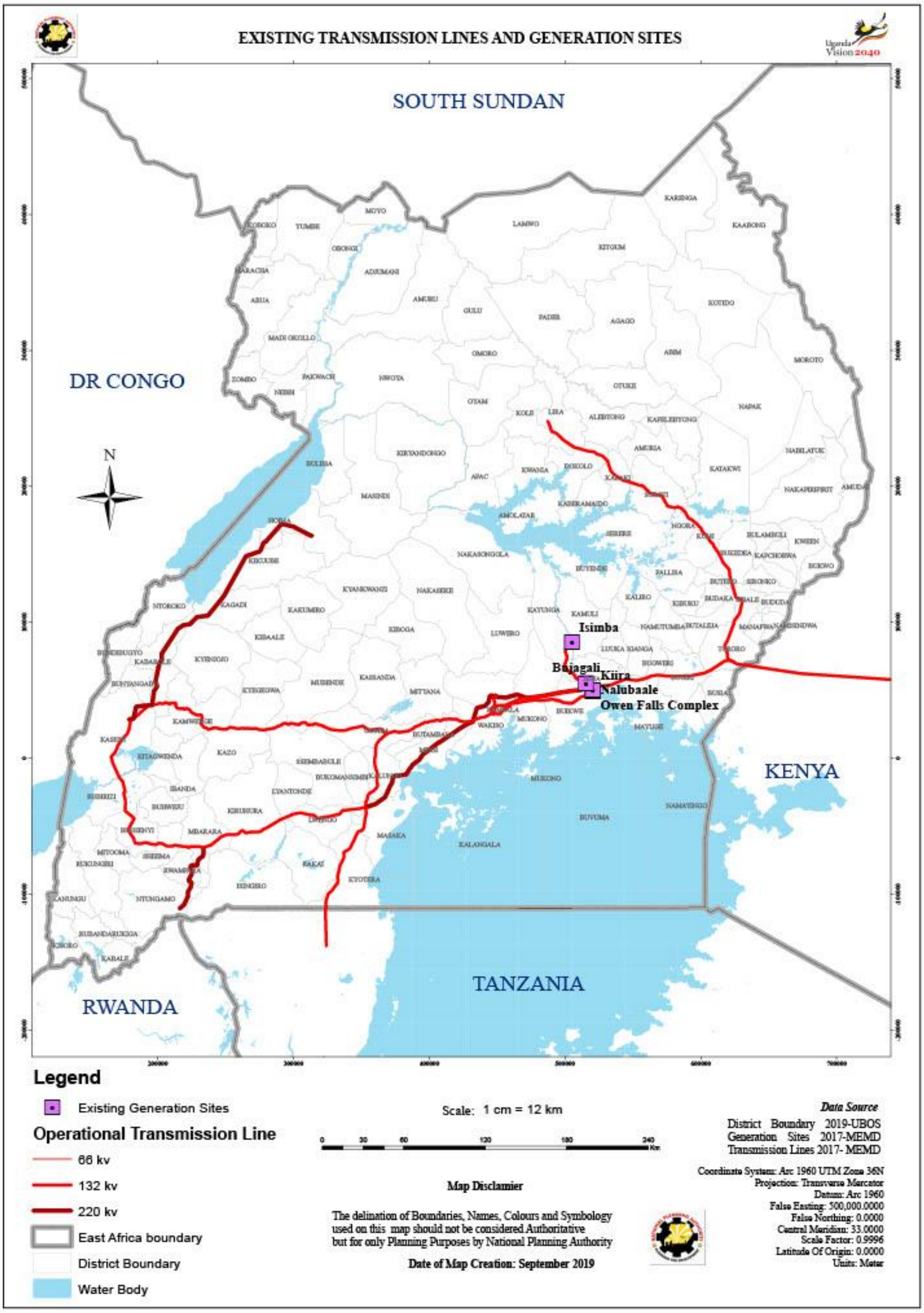
distances. As a result, electricity distribution accounts for the highest technical and commercial losses on the entire grid. Nonetheless, there has been a significant reduction in losses from 35% in 2007 to 16.8% in 2019. The distribution network increased from 40,279.0 kms in 2017 to 45,423.1 km in 2018. This was mainly attributed to the grid extensions by the Rural Electrification Agency. To date, all district headquarters have been connected to the grid with the exception of Kaabong, Kotido and Buyende which are under implementation and Buvuma that's under feasibility study stage. 62% of Sub Counties in the Country are electrified. There are plans underway for electrification of 545 un-electrified sub counties Headquarters and townships as well as load growth centers within the sub-counties and town ships.

286 **Constraints in transmission and distribution limit the use of existing supply (domestic use) to around 595.1 MW in February 2019, suppressing up to 450MW of demand by 2019** and increasing cost of service by a further USD0.10/kWh. The maximum demand including exports has increased from 591.2 MW in 2017 to 656.2MW in February 2019.

287 **At 100 kWh per capita, Uganda currently has one of the lowest electricity consumptions per capita in the world**. Access to electricity is at 28% in 2019 compared to Sub-Saharan Africa average of 42%[8]. By the end of 2018, there were 1,352,735 consumers on the distribution network signifying a 15% (174,923) increment from 2017. Majority of the consumers on the network are classified as domestic (92%), with the other consumer categories including commercial, industrial and street lighting combined constituting about 8%. Ironically, industry consumes about 66%, domestic and commercial consume about 22% and 13%, respectively of the total electricity. To increase electricity consumption, demand side management programmes have been implemented to reduce the energy bills for various energy consumers. These include investments and awareness creation in energy efficient technologies, energy auditing and standards. However, more needs to be done to increase industrial energy consumption.

8 World energy outlook 2018

Map 12.1. Existing Electricity transmission network



288 Over the next five years, Uganda needs to focus on: i) transiting from biomass to clean energy sources, ii) invest in expanding the transmission network, upgrading and expanding the distribution network, iii) start planning for generation of more hydroelectric power, iv) increase industrial energy consumption; v) develop and implement a plan for integrating

geothermal, nuclear, solar and wind energy in the electricity generation mix; and, vi) strengthen intra and inter-sectoral and institutional coordination.

13.3 Objectives

289 In order to address the above constraints, the objectives of this programme are to:

1) Increase access and utilization of electricity;
2) Increase generation capacity of electricity;
3) Increase adoption and use of clean energy;
4) Promote utilization of energy efficient practices and technologies.

13.3.1Interventions

290 In order to achieve the above objectives, NDPIII will prioritize the following interventions under this program:

Table 13.1. Energy Interventions and Respective Actors

Interventions	Actors
Objective 1: Increase access and utilization of electricity	
1. Rehabilitate the existing transmission network;	MEMD, UETCL, LGs
2. Expand the transmission network to key growth economic zones (industrial and science parks, mining areas and free zones, etc.)	MEMD, UETCL, MOLHUD, UIA, UFZA, UMA, ERA, MOFPED, DPs
3. Construct transmission lines to the DRC Congo, Northern Tanzania and Southern Sudan	MEMD, UETCL, MoFPED, MoFA
4. Expand and rehabilitate the distribution network (grid expansion and densification, last mile connections, evacuation of small generation plants, quality of supply projects)	UEDCL, UMEME, MEMD, ERA, REA, MOLHUD, LGs, DPs, MPFPED
5. Develop renewable off-grid energy solutions (Construct 10,000 km of medium voltage networks and 15,000 km of low voltage network).	ERA, MEMD, LGs, DPs, UEDCL, MOFPED
6. Establish mechanisms to reduce the end-user tariffs.	ERA, MOFED,
7. Develop ICT solution to enable efficient and effective cascade Management of the dams along the Nile	MoICT, MoSTI, REA, MEMD
8. Develop and enforce standards on quality of service in the energy industry	UNBS UNBS, MEMD, ERA, UEGCL, UEDCL, UETCL, REA, PSFU
9. Review the existing Acts (Electricity Act, 1999 and Atomic Energy Act, 2008) and develop legislation for geothermal and energy efficiency to provide for emerging issues.	ERA, MEMD, UEGCL, UETCL, UEDCL, REA
Objective 2: Increase electricity generation capacity	
1. Develop medium and small power plants (Muzizi HPP, Nyagak, biogas cogeneration).	UEGCL, ERA, MEMD, MOLHUD, MOFPED, DPs, MWE, NEMA
2. Undertake preliminary development of large generation plants (construction for Ayago 840 MW, feasibility for Kiba 330 MW and Oriang 392 MW)	UEGCL, ERA, MEMD, MOFPED, MWE, UWA, NEMA
3. Finalise approvals for construction of a nuclear power generation plant	MEMD
Objective 3: Increase adoption and use of clean energy	
1. Construct 200 off-grid min-grids based on renewable energies	ERA, MEMD, LGs, DPs, UEDCL, MOFPED

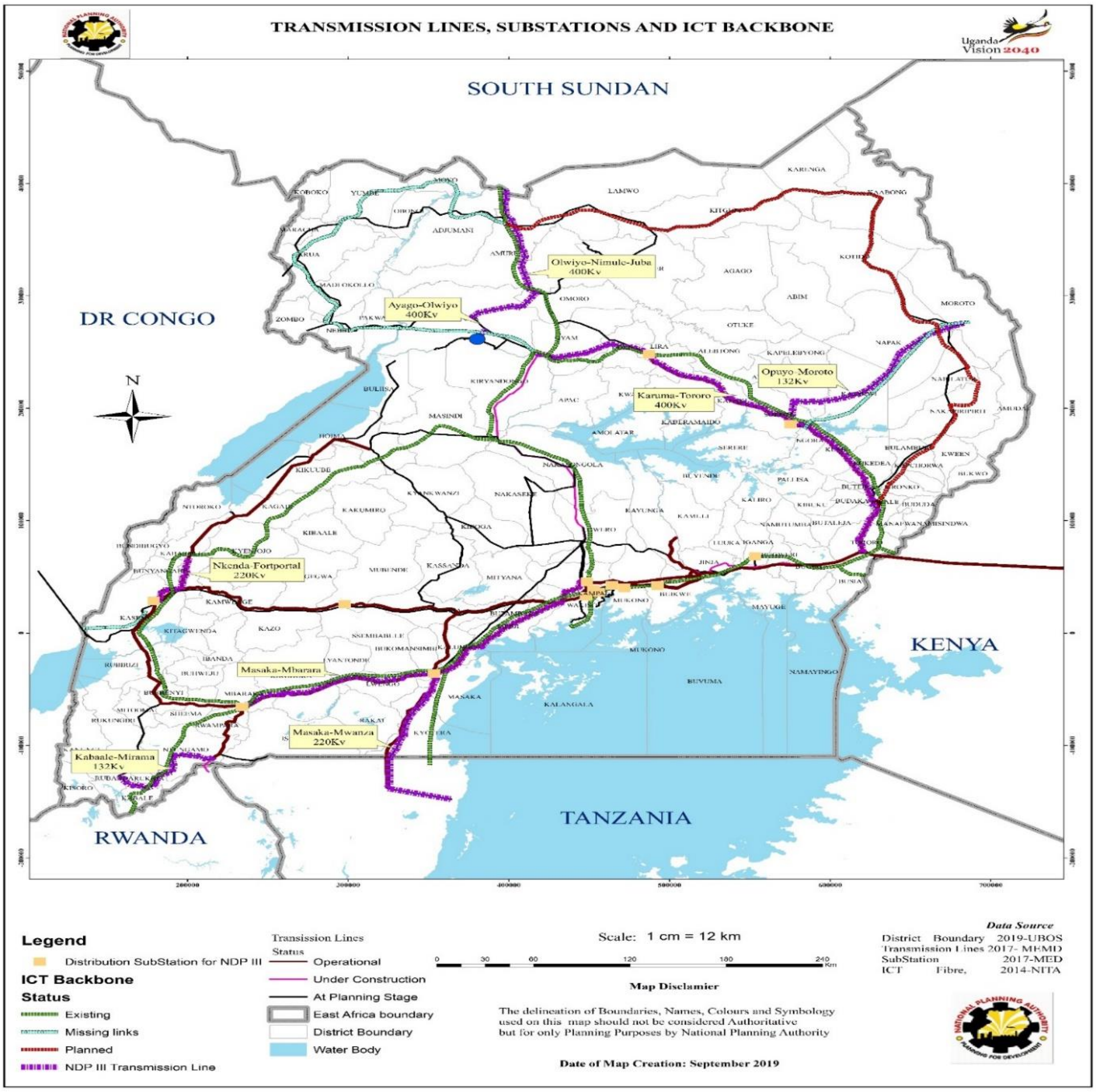
Interventions	Actors
2. Promote use of new renewable energy solutions (solar water heating, solar drying, solar cookers, wind water pumping solutions, solar water pumping solutions)	MEMD, ERA, CSOS, LGs, MOFPED, MoH, MAAIF, MoES
3. Adopt the use of electric transport solutions e.g. solar powered motor cycles, bicycles and tricycles	MEMD, CSOs, MoWT, MoH
4. Develop a framework for net metering	ERA. MEMD, PSFU, UETCL, UEDCL
5. Build local technical capacity in renewable energy solutions	MEMD
Objective 4: Promote utilization of energy efficient practices and technologies	
1. Promote uptake of alternative and efficient cooking technologies (electric cooking, domestic and institutional biogas and LPG)	MEMD, ERA, CSOS, LGs, MOFPED, MoH, MAAIF, MoES, UECCC
2. Promote the use of energy efficient equipment for both industrial and residential consumers,	MEMD, ERA, LGS, CSOs, DPs
3. Introduce Minimum Performance Standards for selected electrical appliances.	UNBS, MEMD, ERA, UEGCL, UEDCL, UETCL, REA, PSFU

13.3.2 Implementation Reforms

291 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Develop and implement service delivery standard for energy services;
2) Government should consider restructuring the sector to reduce the multiplicity of players to lower costs, increase efficiency and improve coordination;
3) Review the Electricity Act, 1999 and amend the distribution voltage to 66kV to enable utilities distribute power at a relatively higher voltage to minimize distribution losses;
4) Review the existing policies to address gaps on alternative sources of energy for cooking, sustainable exploitation of biomass, and development of nuclear and geothermal resources for power generation;
5) Revise Energy Policy of 2002 to align it with regional and international frameworks and ensure that the Government is well positioned to address the emerging socioeconomic challenges of the energy sector;
6) Develop a framework for net metering.

Map 13.2. Spatial Representation of Core Energy Projects



13.3.3 Programme Human Resource Requirements

292 The key skills and competencies required to fully implement this programme and realise expected goals in the next five years are highlighted in table 13.2.

Table 13.2: Qualifications and Skills Needs for: Energy Development Program

QUALIFICATIONS AND SKILLS	Status	Estimated No
Air Pollution specialists		20
Carbon Accounting specialists		30
Carbon and Energy Management specialists		35
Chemical and Physical Science Technicians		40
Chemical Engineering Technicians		30
Chemical Processing Plant Controllers		20
Chemical Products Plant and Machine Operators		35

QUALIFICATIONS AND SKILLS	Status	Estimated No
Computational Continuum Mechanics specialists		60
Earth Scientists		55
Ecologists		65
Electrical and Electronic Circuits specialists		90
Electrical and Electronic Equipment Assemblers		110
Electrical appliances repairing		120
Electrical Energy Systems specialists		134
Electrical engineers		200
Electrical fitting specialists		150
Energy Geoscientists		30
Energy Systems and Climate Change specialists		80
Energy Systems in Buildings specialists		40
Energy Transport specialists		55
Engineering Thermodynamics specialists		90
Environmental Engineers		70
Environmental Geologists		90
Geo-informatics specialists		40
Geologists and Geophysicists		20
Geology Engineers		60
Geoscientists		40
IT, Electrical, Electronics or Computer Science Engineering specialists		(45)
ME Electrical Energy Professionals		(67)
Meteorologists		50
Nuclear Physicists		100
Nuclear, hydraulic and thermal energy specialists		90
Oil & Gas Technology specialists		30
Petroleum and Natural Gas Refining Plant Operators		60
Petroleum Engineering		90
Petroleum Geologists		40
Power and Solar energy production specialists		30
Power Electronics and Drives specialists		70
Power Electronics Technology specialists		90
Power line installation and maintenance specialists		60
Power Production Plant Operators		55
Power System Design specialists		40
Power System Dynamics and Control specialists		70
Power System Operation specialists		50
Renewable Energy & Carbon Management specialists		90
Renewable Energy & Clean Technology specialists		70
Renewable Energy Systems specialists		90
Sustainable Energy & Green Technologies specialists		200

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 14: DIGITAL TRANSFORMATION

14.1Introduction

293 **ICT is a fulcrum of development.** It is an accelerator, amplifier, and augmenter of change. It has a huge potential to improve national productivity by making Government and business enterprises more efficient, effective and globally competitive. It is therefore a crucial driver of social and economic development. However, the ICT landscape is itself changing and government must take deliberate steps to keep this pace through the development and adoption of new strategies that can be leveraged to realize the Country's digital future.

294 **The aspiration of Agenda 2030 under SDG 9 is to significantly increase access to information and communications technology and provide universal and affordable access to the internet**. In addition, under SDG 17, it seeks to enhance the usage of enabling technology, specifically information and communications technology. Similarly, Agenda 2063, (Goal 10) aspiration is to double ICT penetration and contribution to GDP. Further, the aspiration of EAC Vision 2050 is to build EAC's ICT capacities to encourage innovation and increase competitiveness. The Uganda Vision 2040 identifies ICT among the key fundamentals as well as an opportunity to spur Uganda's transformation into a modern and prosperous country.

295 **Despite the potential that ICT has, utilization of its services across the country is still limited** due to: (i) Limited network coverage; (ii) Poor quality services (iii) High cost of end user devices and services; (iv) Inadequate ICT knowledge and skills; and (v) Limited innovation capacity.

296 **The goal of the programme is therefore, to increase ICT penetration and use of ICT services for social and economic development.**

297 The key results to be achieved over the next five years are:

(i) Increase ICT penetration (Internet penetration to 70 percent, countrywide 4G coverage, Tele density to 80 percent, Digital Television signal coverage from 56 percent to 95 percent, Radio signal coverage from 60 percent to 95 percent, 70 percent broadband availability in Government MDAs/LGs);

(ii) Reduce the cost of ICT devices and services (unit cost of internet from USD 237 to USD 70, unit cost of low entry smart phones from UGX 100,000 to UGX 60,000 and cost of a computer from UGX 1,600,000 to UGX 800,000);

(iii) Create 500,000 direct jobs within the ICT sector;

(iv) Increase the proportion of population accessing services online to 25 percent;

(v) Provide 80 percent of government services online.

14.2 Situation Analysis

298 **Over the NDPII period, the information and communications services continued to grow at an average growth rate of 14.8 percent with the main drivers being the telecommunications followed by the broadcasting activities**. Contribution from other activities such as computer programming as well as the ICT trade and manufacturing

industries remain low. The sector contribution to GDP averaged at 3.1 percent and significantly contributed to national revenue. The growth is attributed to considerable investments made by both Government and Private players in expansion of infrastructure coverage, development of e-services among others. This consequently resulted in an upward trend in the usage of and access to ICTs.

299 **Total telephone subscriptions increased from 20.5 Million in 2015 to 23.2 Million in 2017 resulting in a teledensity of 66.9 percent and** the number of internet users also increased from 6.2 million users in 2015 to 9.8 million users in 2017. This translated into an internet penetration rate of 25 percent. However, broadband access in Uganda is still largely mobile and in 2017, of the total number of users only 10,273 were fixed broadband which resulted in a 0.1 percent fixed broadband penetration rate. The low fixed broadband access implies that there is little progress in promoting broadband access to anchor institutions like schools, libraries, health centers, and Local Government offices and that a critical mass of institutions and businesses are not using broadband services to be competitive.

300 **To improve service delivery and increase uptake of e-services, government developed common core infrastructure such the National Data Center,** rolled out a series of horizontal shared services that cut across different public sector organization and several electronic governments (e-Government) systems across various MDAs/LGs. However, there was still duplication of IT applications and services within government and generally Uganda continues to lag behind comparable countries in Africa in the global e-Participation Index that assesses citizens' use of the available online services and infrastructure at position 91 of 193 countries. There was also a drop in the Networked Readiness Index (NRI) from position 110 in 2013 to 121 out of 139 countries in 2016. NRI measures the capacity of countries to use ICTs for increased competitiveness.

301 **Over the next five years, Uganda will focus on promoting the use of ICT in the entire economy and society through**: (i) deployment of secure, integrated and cross sector infrastructure; (ii) develop and promote usage of e-services, (iii) ensuring standardization and interoperability of systems; (iv) Enhancement of national cyber security (v) support innovation, and commercialisation of ICT products; (vi) enhancement of digital literacy and developing skills; (vii) support development and uptake of emerging technologies including Fourth Industrial Revolution Technologies, and (viii) automation of end-to-end government business and service delivery processes.

302 **Efforts were made to incubate the youth to develop local products that can be consumed locally and even exported** regionally and internationally and a government supported hub was constructed at UICT Nakawa. There are about twenty privately managed ICT hubs such as Hive, Innovation Village, and Outbox located in and around Kampala and no hubs in the other regions of the country. The ecosystem such as the information technology parks that would attract anchor companies to the country has not been established and the interaction between the triple-helix (academia, government, and ICT industry) has remained relatively weak.

303 **The ICT revolution and generally the increasing uptake of digital communications channels had a considerable impact on postal sector**. It witnessed an 80 percent drop in the domestic ordinary letter posted from 864,281 in 2015 to 168,386 in 2017. However, there was an increase domestic Expedited Mail Service. Postal subsector will need to embrace the digital transformation and diversification of postal services. It remains very relevant in promoting e-commerce in cases where the physical delivery of items is required and in extending digital services to the rural areas and bridging the digital divide through the transformation of all postal centres into e-service access centres.

304 **The internet is a great enabler for sustainable development and the benefits can be effectively accrued if the three constraints; cost of access, penetration and reliability are properly managed**. The total optical fibre network both Government and private owned spans around 12,000 km covering 49 percent of the districts and 24 percent of the sub counties with presence at all the border points. However, there is duplication of the fibre routes by both the public and private sector operators thus the effective national coverage is less than 4,000 km and the fibre network route is limited to the major urban centres, with most of rural area currently underserved. Uganda's broadband infrastructure also has a significant quality of service challenge.

305 **The cost of internet access remains high compared internationally at an average of USD 84 per Mbps**. None the less, the cost of internet bandwidth has been progressively falling. The price of internet for MDAs and LGs has significantly dropped, from an average cost of 1 Mbps/month of USD 300 in 2015 to USD 70 in 2018. The commercial ISPs have accordingly slashed their prices for 1 Mbps/month from an average of USD 515 in 2015, down to USD 237 in 2018. High price of data is one of the main reasons why many people are not using the internet and associated services. It remains a major stumbling block to meaningful deployment of ICT in socio-economic development. Generally, the high cost of communication negatively affects the competitiveness of Uganda and is detrimental to the growth of the local ICT sector.

306 Uganda dropped from rank/IDI value 149/2.14 in 2015 to rank/IDI value 158/1.90 in 2016 (ICT Development Index, year). However, in 2017, it improved by six places to rank 152 out of 176 countries with an IDI value of 2.19. This index measures access, ICT use and ICT skills. The improvement in the IDI index is attributed to the major infrastructural developments in mobile network coverage and optic fibre network however, the utilization of ICT in the country is still low and the benefits from ICT use have not been fully harnessed. While development in ICT infrastructure remains essential, the plan will focus on increasing the use of ICTs for acceleration of the entire economy and the programme will support the digital transformation and the move towards digital (smart) health, digital (smart) agriculture, digital (smart) manufacturing, digital (smart) cities among others.

307 Over the next five years, Uganda needs to focus on promoting the use of ICT in the entire economy and society through: (i) deployment of advanced and secure infrastructure; (ii) establishing a seamless interconnection between public and private infrastructure providers; (iii) ensuring standardization and interoperability of systems; (iv) supporting innovators in development and commercialisation of ICT products; (v) enhancing digital

literacy and developing skills to support innovation; and (vi) review and automation of end-to-end government business and service delivery processes.

14.3 Objectives

308 In order to address the above constraints, the objectives of this programme are to:

1) Increase the national ICT infrastructure coverage;
2) Enhance usage of ICT in national development;
3) Enhance ICT research, innovation and development;
4) Increase the ICT human resource capital;
5) Improve the legal and regulatory framework.

14.3.1 Interventions

309 In order to achieve the above objectives, NDPIII will prioritize the following interventions under this programme

Table 14.1. Digital Transformation Interventions and Respective Actors

Interventions	Actors
Objective 1: Increase the national ICT infrastructure coverage	
1. Extend ICT infrastructure coverage countrywide in partnership with the private sector and implement last mile connectivity in key areas (Districts, sub counties, schools, hospitals, post offices, tourism sites, police, LGs etc.)	MoICT&NG, NITA, UCC, POSTA, UTL, MEMD, UBC/SIGNET, Other Utility service providers (MoWE, MoWT), Telecommunication service providers
2. Complete the deployment of Digital Terrestrial Television & Radio Broadcasting infrastructure	MoICT&NG, UBC/SIGNET, Broadcast service providers
3. Develop and enhance national common core infrastructure (data centres, high power computing centers, specialized labs)	MoICT&NG, NITA, UCC
Objective 2: Enhance usage of ICT in national development	
1. Promote the rollout of e-Services a) Establish a framework for standardization and interoperability of digital services b) Develop data sharing and integration platform c) Develop Big data framework	MoICT&NG
2. Review and implement National Information Security Framework a) Develop and implement the National cyber security program b) Strengthen the National Computer Emergency Response Team (CERT) c) Develop and enforce the Government Public Key Infrastructure (PKI) services	MoICT&NG, NITA
3. Develop and implement the Data Protection and Privacy Program (Data protection regulations, Data Protection Register)	MoICT&NG, NITA

Interventions	Actors
4. Transform and diversify postal outlets into e-service access centres	MoICT&NG, POSTA, NITA
5. Digitize, archive and commercialize Local Contents (including PWDs)	MoICT & NG, UBC
6. Develop and implement the national postcode and addressing system	MoICT&NG
7. Regularise courier services (Standards developed)	MoICT&NG, POSTA
Objective 3: Enhance ICT research, innovation and development	
1. Develop and implement ICT Research, Innovation ecosystem framework a) Develop ICT research and innovation standards and guidelines b) Develop ICT innovation policy c) Develop ICT research agenda	MoICT & NG, UICT, MSTI, UCC
2. Develop Innovation Centers (National ICT park, Hubs, Incubation programme, BPO strategy reviewed)	MoICT&NG, UICT, MSTI
3. Support local manufacturing and assembly of ICT devices	MoICT&NG, NITA, MSTI
4. Promote local content production and citizen participation	MoICT & NG
5. Undertake innovative management of e-waste	MoICT&NG, NITA, MSTI
Objective 4: Increase the ICT human resource capital	
1. Develop a well-grounded ICT professional workforce	MoICT&NG, UICT, MoES, NCDC
2. Develop an ICT professional's quality assurance framework	MoICT&NG, UICT, NITA, MoES, NCDC
3. Provide digital literacy training	MoICT&NG, UICT, UCC, NITA
4. Develop centres of excellences (UICT transformed into centre of excellence)	MoICT&NG, UICT, UCC
5. Review and implement ICT training curriculum at all levels of Education system in collaboration with the Ministry of Education	MoICT&NG, UICT, UCC, NITA, MoES, NCDC
6. Implement targeted capacity building for teachers to incorporate ICT in Pedagogy	MoICT&NG, UICT, MoES
Objective 5: To improve the legal and regulatory framework	
1. Regulate, coordinate and harmonize ICT infrastructure planning, sharing and deployment within the public and private sector a) Establish a framework for a coordinated rollout of Broadband as a utility b) Develop an ICT Infrastructure Master Plan c) Establish a government oversight framework for Internet Exchange Points (the UIXP) d) Develop & implement CCTLD Government oversight framework	MoICT&NG
2. Review and develop appropriate policies, strategies, standards and regulations to enhance usage of ICT in development a) e-commerce policy to facilitate and regulate e-trade developed b) e-Commerce Strategy developed and implemented c) Postal policy, standards and regulations reviewed	MoICT & NG
3. Harmonize Uganda's policy, legal and regulatory framework within the regional and global context.	MoICT & NG, UCC

Interventions	Actors
4. Review and develop appropriate policies, strategies and regulations to keep the sector abreast with technology developments and market forces/industry demands	MoICT & NG

14.3.2 Implementation Reforms

310 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) There is need to rationalize agencies under the ICT sector to remove duplications and overlaps of mandates.
2) Government should take lead in the coordination of ICT infrastructure development and deployment so as to cure the silo-based approach to planning and development of infrastructure. The lack of coordination and regulation to guide public and private entities in the development of broadband infrastructure has led to duplication of infrastructure with networks running parallel to each other. As result, there is: underutilization of the optic fibre capacity, low speeds of deployment and increased costs of ownership which has ultimately resulted in limited broadband infrastructure coverage across the country.
3) Government will digitalise and roll out e-services to all sectors, MDAs and Local Governments to be able to harness the potential of ICT. All sectors, MDAs and LGs shall adopt new ways of delivering services, re-engineer their business processes ensuring that they are simplified, streamlined and optimized and develop e-solutions such as e-health, e-education, e-extension services among others

14.3.3 Programme Human Resource Requirements

311 The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in table 14.2.

Table 14.2: Qualifications and Skills Needs for ICT and Digital Technology Program

Qualifications And Skills	Status	Estimated 5-Year Gap
Applications developers		531
Application Support Specialist		(251)
Business intelligence (BI) analysts		240
Cloud engineers/cloud specialists		(431)
Computer and Information Systems Managers		282
Computer Science Programmers		321
Computer Support Specialists		(420)
Computer Systems Analysts		263
Computer vision engineers		332
Data Communication and Software Engineering specialists		219
Database Administration (DBA) specialists		(520)
Database Analysts		(620)
DevOps specialists		716
Digital Marketing (Digital Technology Platforms) specialists		(281)
Digital Strategists		(261)
Graphic Designing specialists		631
Information Science specialists		232

Qualifications And Skills	Status	Estimated 5-Year Gap
Information Security Analysts		(210)
Information Systems specialists		(172)
Library and Information Science specialists		(520)
Machine learning and Artificial Intelligence (AI) specialists		229
Machine learning Engineers		321
Multimedia Artists and Animation specialists		193
Network analysts		(215)
Online Community Coordinators		(429)
Records and Archives Management specialists		(320)
Software Engineering specialists		324
Software Developers		490
Software Quality Testing (SQT) Automation specialists		521
IT User support specialists		(1,652)
User Experience Designing experts		(972)
Web marketing specialists		(822)
Web Programming specialists		344
Website Developers		(621)
System auditors		392
Information Technology managers		326
Enterprise architecture specialists		291

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 15: SUSTAINABLE URBANIZATION AND HOUSING

15.1 Introduction

312 **Urbanization offers considerable opportunities for accelerating socio-economic transformation through economic growth, employment and wealth creation**. Depending on the form that urbanization takes, the concentration of economic actors in space enables substantial productive advantages that can contribute to growth. Because the growing middle-class consumption is largely urban based, urbanization also influences industrial development. As income grows, discretionary spending increases and consumption patterns change, generating demand for manufacturing goods and urban construction and thus opportunities for industry.

313 **The global Agenda 2030 for Sustainable Development, as well as the African Agenda 2063 advocate for a well-planned and managed urbanization as a force for sustainable development**. The Uganda Vision 2040 also seeks to invest in better urban systems to enhance productivity, liveability, and sustainability.

314 **However, Uganda's current urban development is unsustainable** due to: jobless urban growth; inadequacies in physical planning and plan implementation leading to a sprawl of unplanned settlements; a deficiency in quantity and/or quality of social services, public infrastructure and housing; and a skewed national urban system.

315 **The goal of this programme is therefore, to attain inclusive, productive and liveable urban areas for socio-economic development**.

316 The key results to be achieved over the next five years are:

(i) Decrease the urban unemployment rate from 14.4 percent to 7 percent by creation of 500,000 productive and decent urban jobs annually;

(ii) Reduce the acute housing deficit of 2.2 million by 20 percent;

(iii) Decrease the percentage of urban dwellers living in slums and informal settlements from 60 percent to 40 percent;

(iv) Decrease the average travel time per km in GKMA from 4.1 min/km to 3.5 min/km;

(v) Increase the proportion of tarmacked roads in the total urban road network from 1229.7 km (6.1 percent) to 2459.4 km (12.2 percent);

(vi) Increase the proportion of surveyed land from 21 percent (2020/21) to 40 percent (2024/25);

(vii) Improve the efficiency of solid waste collection from 30 percent to 50 percent (2024/25).

15.2 Situation Analysis

295 **While the present level of urbanization is low (18 percent), the country is urbanizing at a rapid pace**. At 5.2 percent urban growth rate per annum, 26.5 percent of Uganda's population will be urban by 2030. During the 10-year plan period of 2020-2030 alone, Uganda's urban population is projected to grow by 69 percent, adding 8.1 million people to the country's cities (UNDESA, 2018). Uganda's rapid urbanisation can foster the transition to a middle-income country, if it is planned well. An estimated 70 percent of GDP is generated in Uganda's urban areas, where only 24.4 percent of the population lives (MLHUD, 2017). If Uganda's growing cities and the national urban system are to play a central role in economic transformation, the binding constraints as well as opportunities highlighted below should be addressed to increase productivity and create jobs in the urban areas.

296 **Uganda's high urbanization rate has not been matched by the capacity of local authorities to plan and manage urban growth**. Many urban areas in Uganda have expanded beyond their original spatial plans with many urban areas surrounded by vast sprawling unplanned settlements and have increasingly encroached into the wetlands and drainage corridors. Sixty percent of the urban population live in informal settlements (slums), which are characterised by social conflicts and crime. The urban sprawl impacts productivity and efficiency of firms, costs incurred by households, service delivery, and the degradation of greenspaces as well as ecosystem services. The encroachment on and destruction of wetlands and natural drainage features which are meant to consolidate runoff and then release it gradually is the main reason for persistent flooding in urban areas.

297 **The inadequacies in physical planning is worsened by the complex land tenure system prescribed by the Constitution, which vested land ownership to residents, with urban authorities no longer holding statutory leases**. The failure to enforce the Physical Planning Act (2010) and the National Physical Planning Standards and Guidelines (2011), has resulted in land fragmentation through unregulated land subdivision and transactions. Land transactions, land and property transfer and registry are key challenges for doing business by the private sector. Only 21[9] percent of the country's land is titled impacting investments, land transactions and supply of land for development. The low rate of surveyed land is largely attributed to limited budget outturn for the Sector.

298 **Uganda's urban areas, especially the Greater Kampala Metropolitan Area (GKMA), are characterised by overcrowding, poor infrastructure and inadequate social services such as water, sewage, solid waste collection**. The absence of an efficient public transport system and adequate road connectivity results in traffic congestion, which curtails mobility and inhibits economic agglomeration. In the GKMA alone, 2.2 million persons use the inadequate and dilapidated infrastructure every day,

[9] Lands, Housing and Urban Development Budget Framework Paper FY 2019/20

which leads to the severe traffic congestion. Furthermore, in relative terms, Uganda's urban population has a lower level of access to electricity (57 percent), and basic sanitation (28 percent) than averages for low and middle-income countries (World Bank). Uganda also faces an acute deficit of affordable and quality housing totalling an estimated 2.2 million housing units, out of which 210,000 units are needed in the urban areas (Uganda National Housing Policy, 2016). The backlog is expected to increase to 8 million housing units by 2030 if not addressed. The annual needs for new decent housing for the entire country is estimated at 200,000 units per annum yet only 60,000 units are constructed annually. The provision of houses has largely been left to an ill-equipped private sector.

299 **Uganda is urbanizing rapidly without industrializing**. This has resulted in rapid urbanization without the required jobs in skill-intensive and higher-productivity sectors and, ultimately, extensive informality, poverty and inequality. Most non-farm employment is in the informal sector (91 percent), with young people occupying 94.7 percent of those jobs. In Kampala, informal firms account for 57 percent of employment (World Bank). Apart from the slow pace of industrialisation, most youths lack certified skills that would turn them into job creators and not job seekers. However, the increase in the working age population provides Uganda with an immense window of opportunity to translate its high population growth rates into a demographic dividend. The country's ability to harness this demographic dividend and turn it into inclusive growth and productive jobs is premised on its capacity to harness rapid urbanisation.

300 **Uganda's national spatial system is dominated by the Greater Kampala Metropolitan Area (GKMA), which comprises 10 percent of the national population,** 40 percent of the urban population, 46 percent of formal sector workers and 70 percent of manufacturing firms with five or more employees (World Bank, 2017; Lall, 2012). The GKMA is by far the largest of Uganda's urban areas and was approaching 3.5 million in 2017, with no other urban area standing at more than 200,000 at the time of the 2014 census (MLHUD, 2019). In order to maintain and promote the vital economic contribution and competitiveness of urban areas, it is critical to adopt an integrated approach towards the envisioned sustainable urbanization and housing programme.

15.3 Objectives

301 In order to address the above constraints, the objectives of this programme are to:

1) Increase economic opportunities in cities and urban areas;
2) Promote urban housing market and provide decent housing for all;
3) Promote green and inclusive cities and urban areas;
4) Enable balanced and productive national urban systems;
5) Strengthen urban policies, planning and finance;

6) Leverage digital technologies for smart urban planning, management and governance.

15.3.1 Interventions

302 In order to achieve the above objectives, NDPIII will prioritize the following interventions;

Table 15.1. Sustainable Urbanization and Housing Interventions and Respective Actors

Interventions	Actors
Objective 1: Enhance economic opportunities in cities and urban areas	
1. Support establishment of labour-intensive manufacturing, services, and projects for employment creation including development of bankable business plans	MLHUD, MoLG, NPA, MDA's, Private sector, DPs
2. Establish accredited institutions to offer certified skilling, entrepreneurship and incubation development	MGLSD, MoFPED, MOE, MLHUD, MOLG
3. Reform and improve business processes in cities and urban areas to facilitate private sector development	URA, MoFPED, MoLHUD MoLG, Private Sector
4. Promote land consolidation, titling and banking	MLHUD, MDA's, DPs, Private Sector, CSOs, LGs, Local Communities
5. Develop and implement an integrated rapid mass transport system (Light Railway Transport and Mass Bus Transport) to reduce traffic congestion and improve connectivity in urban areas	MoWT, KCCA, MLHUD, MDA's, private sector, DPs, CSOs, Local Communities, LGs
6. Improve urban safe water and waste management services and associated infrastructure for value addition and revenue generation	MoWE, KCCA, MLHUD, MoLG, MoWT, MDA's, private sector, DPs, CSOs, Local Communities
Objective 2: Promote urban housing market and provide decent housing for all	
1. Develop and implement an investment plan for adequate and affordable housing	MLHUD, MoLG, MoFPED, NPA, MDAs, MTIC
2. Develop, promote and enforce building codes	MLHUD, MoLG, MoFPED, NPA, MDAs, MTIC
3. Develop an inclusive housing finance mechanism including capitalization of housing Finance Bank and revisiting the mandate of NHCC	MoES, MEMD, MLHUD, NPA, Private sector
4. Incentivize real estate companies to undertake low income housing projects to address the housing deficit	UIA, MLHUD, Private sector
5. Address infrastructure in slums and undertake slum upgrading	UIA, MTIC, Uganda Free zones Authority, MoWT, MoLG, MLHUD, MAAIF, LGs
6. Design and build inclusive housing units for government workers	UNHCC, MLHUD, MOLG, MKCC&MA, Housing Finance Bank
7. Promote sustainable housing materials and implement a low-cost housing program	MTIC, MLHUD, Private Sector
8. Capitalize housing finance to provide affordable mortgages	MOFPED, MKCC&MA[10], MLHUD, NPA, DPs, Private Sector, Civil Society, Local Communities
Objective 3: Promote green and inclusive cities and urban areas	
1. Conserve and restore urban natural resource assets and increase urban carbon sinks	MLHUD, MWE, NEMA Private Sector

[10] MKCC&MA – Ministry of Kampala, Capital City and Metropolitan Affairs

Interventions	Actors
2. Undertake waste to resource projects which promote a circular economy	MLGSD, MOWE, MOEMD, MLHUD
3. Develop, green buildings and building codes and promote energy efficient housing	MLHUD, MOFPED, MOEMD, MKCC&MA
4. Promote non-motorized transit in city	MOW, MLHUD, MOWE
5. Increase urban resilience by mitigating against accidents and flood	MLHUD, MOWT, MOWE
6. Develop and protect green belts	MLHUD, NEMA, MOWE
7. Establish and develop public open spaces	MLHUD, MOWE
Objective 4: Enable balanced and productive national urban system	
1. Develop and implement integrated physical and economic development plans in the new cities and other urban areas	MLHUD, MOLG, OTHER MDAs and Private Secotr
2. Implement the Greater Kampala Metropolitan Area Economic Development Strategy	MKCC&MA, MLHUD, MOLG, other MDAs and Private Sector
Objective 5: Strengthen urban policies, governance, planning and finance	
1. Review, develop and enforce urban development policies, laws, regulations, standards and guidelines	MLHUD, MWE, PSFU, CSOs, Local Communities, MoLG, LGs
2. Implement participatory and all-inclusive planning and implementation mechanism to enforce the implementation of land use regulatory and compliance frameworks	MLHUD, KCCA, MWE, MoLG, PSFU, CSOs, Local Communities, LGs
Objective 6: Leverage digital technologies for smart urban planning, management and governance	
1. Establish and automate the land registration and administration system	MLHUD, NPA, MoLG, MTIC, DPs, PSFU, CSOs, Local Communities, LGs
2. Automate and digitize the solid waste, electricity, postal, water, streets and neighbourhood systems	MLHUD, MoLG, URA, Private sector, other MDA's, DPs, Private Sector, Civil Society, Local Communities

15.3.2 Implementation Reforms

303 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Widen the mandate of the Ministry of Kampala to effectively handle metropolitan affairs in the country.
2) It is crucial to establish a mechanism to institutionalize inter-sectoral coordination of the various ministries, departments and agencies and the private sector in regards to urbanization.
3) There is need to align policies, plans and investments between various economic sectors in specific regions and cities to avoid disjointed and inefficient patterns of urbanization.
4) Investment targeting should be strategic, not just in terms of the nature of investment but also their location.
5) Spatial targeting must consider the tradeoffs inherent to cities of various sizes, and the unique economic role of each.

15.3.3 Programme Human Resource Requirements

304 The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in table 15.2.

Table 15.2: Qualifications and Skills Needs for: Sustainable Housing and Urban Development Program

QUALIFICATIONS AND SKILLS	Status	Estimated No
Building and Related Electricians		(1200)
Building Architects		220
Building Construction Labourers		(3000)
Cartographers and Surveyors		350
Civil Engineering Technicians		300
Construction Supervisors		700
Electrical Engineering Technicians		550
Electrical Mechanics and Fitters		(500)
Electronics Mechanics and Servicers		400
Environmental and Occupational Health and Hygiene Professionals		500
Environmental and Occupational Health Inspectors and Associates		600
Environmental Engineers		400
Environmental Policy Analysts		350
Environmental Protection Professionals		700
Environmental specialists		400
Floor Layers and Tile Setters		(800)
Geographic Information System specialists		500
GIS and R specialists		140
Graphic Designer		(250)
House Builders		(400)
Incinerator and Water Treatment Plant Operators		180
Integrated Development Environment specialists		110
Interior Designers and Decorators		200
Landscape Architects		250
Map Design & Spatial Planning Specialist - GIS Developer		120
Painters and Related Workers		(1000)
Plasterers		(1500)
Plumbers and Pipe Fitters		(3000)
Real Estate Agents and Property Managers		(120)
Real Estate Management Managers		(300)
Roofers		(800)
SketchUp Modeler		(400)
Social Impact Assessment specialists		240
Social Work Associate Professionals		400
Spray Painters and Varnishers		(2000)
Stonemasons, Stone Cutters, Splitters and Carvers		(300)
Town and Traffic Planners		200
Urban policy analysts		250
Urban Researchers		400

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 16: HUMAN CAPITAL DEVELOPMENT

16.1Introduction

305 **A country that does not invest in its human capital mortgages its future.** Well-educated, enlightened and healthy human resources are essential to facilitate development. The availability of appropriate and adequate human capital facilitates increase in production, productivity and technological growth. Investing in preventive health care, nutrition, early childhood development, sanitation and hygiene and basic education helps set the foundation for the required human capital.

306 **The aspiration of Agenda 2030 (SDG4), 2063 (Goal 2) and EAC Vision 2050 is to have an inclusive and equitable quality education, promotion of lifelong learning opportunities** and skills revolution underpinned by science, technology and innovation. In addition, SDG 3 and Goal 3 of Agenda 2063 call for ensuring healthy lives and promoting the well-being for all at all ages. SDG5 calls for provides for gender equality while SDG6 and Africa Agenda 2063 (goal 1) calls for provision of clean water and sanitation for all. Furthermore, SDG8 provides for decent work and labour productive. SDG1 calls for social protection and enhancing access to basic services and building resilience. The Uganda Vision 2040 identifies human capital development as one of the fundamentals that need to be strengthened to accelerate the country's transformation and harnessing the demographic dividend.

307 **However**, **Uganda's human capital is characterised by low labour productivity**. Analysed along the life cycle, this is mainly attributed to: (i) weak foundation for human capital; (ii) lack of appropriate knowledge skills and attitudes; (iii) poor population health and safety; (iv) poor population management; (vi) limited social protection; and (vii) lack of institutionalized and integrated human resource planning and development.

308 **Therefore, the goal of this programme is to increase productivity of the population for increased competitiveness and better quality of life for all**.

309 The key results to be achieved over the next five years are:

(i) Increase the proportion of labour force transitioning into gainful employment and enterprise development from 34.5% to 55%;

(ii) Increase average years of schooling from 6.1 to 11 years;

(iii) Increase learning adjusted years of schooling from 4.5 to 7 Years;

(iv) Reduce prevalence of under 5 stunting from 28.9% to 24%;

(v) Reduce Under 5 mortality from 64/1000 live births to 52/1000;

(vi) Reduce MMR from 336/100,000 to 299;

(vii) Reduce age-related dependency ratio from 95.6 in 2018 to 80;

(viii) Increase life expectancy of the population from 63 to 70;

(ix) Reduce the gender gap index from 0.523 in 2017 to 0.5;

(x) Increase access to safe water supply from 70% to 85% (rural) and 74% to 100% (urban);

(xi) Increase access to basic sanitation from 19% to 40%;

(xii) Increase in the proportion of the population accessing Universal health care from 44% in 2018 to 60% in 2025;

16.2 Situation Analysis

310 **Uganda has the second youngest population in the world with 50.3% below 15 years out of a total of about 40 million people**. The country also has a high population growth rate of 3% and a fertility rate of 5.4%. At this growth rate, the population is projected to be 48.3million by 2025 and 69.7 million by 2040. This population structure, offers the country a high opportunity for abundant labour force but also creates a challenge of a high dependency burden.

311 **With adequate investment in people, Uganda will harness the demographic dividend to increase total labour productivity**. **However, the current demographic quality indicators present a challenge.** With a human development index (HDI) of 0.516, the country is classified in the low human development category— ranking it at 162 out of 189 countries. Also, a human capital index (HCI) of 38% implies that, with the current state of education and health, a child born in Uganda is expected to achieve only 38% of their productive potential at age 18 (World Bank, 2019).

312 The human capital development life cycle follows the phases of; pre-conception, infancy, childhood, adolescence, adulthood, and old age. The detailed analysis of each phase shows a mixed performance as highlighted below:

313 **At pre-conception, conception and Infancy, significant progress has been made in maternal and child health.** This improvement is due to increased provision of free antenatal services in most health facilities with ANC visits, increasing from 44% in 2011 to 60% in 2016 and the proportion of hospital deliveries increasing from 57% to 73% over the same period. In particular, maternal mortality ratio declined from 438 in 2011 to 336 in 2016 and infant mortality (per 1,000) improved from 54 to 43 over the same period. In addition, there was increase in access to prevention of mother to child HIV transmission services from 68% in 2015 to 90% in 2016. However, neonatal mortality rate has stagnated at 27 per 1,000 for the last 20 years (below the NDPII target of 10 per 1,000); completion rate of immunization before 1 year remains low at 78% (NDPII target 95%); low sanitation and hygiene coverage (19% improved-toilet coverage and 34% hand washing); limited access to health insurance at 2%; limited access to prenatal, antenatal and post-natal care and education; limited child and maternal nutrition education; low parenting skills and non-functionality of some health facilities and poor

maternal nutrition (anaemia and vitamin A deficiencies). The slow and lack of improvement in some of the indicators is due to; negative health behaviour, lack of knowledge, limited access to health services, and the lack of a multi-sectoral response to health. Nonetheless, these challenges are less prevalent in households where mothers have attained at least some secondary level education.

314 **At childhood phase (1-12years), progress has been registered in a number of areas**. In education, enrolment in primary education has tripled from 2.8 million in 1997 following the introduction of Universal Primary Education (UPE) to 8.8 million in 2018; increased physical infrastructure that has led to improvement in the Pupil Classroom Ratio from 87:1 in 2003 to 55:1 in 2018; increase in qualified primary school teachers from 185,548 in 2013 to 207,238 in 2018; the Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) in Primary improved from 117%, and 93% in 2015/16 to 111% and 94% in 2017/2018, respectively. In childhood health, significant progress has been registered in the areas of reduction in under-five mortality from 90/1000 in 2011 to 64/1000 in 2016 and safe water coverage is high at 74.9% in rural at 92.3% in urban. In social protection, significant progress has been made in terms of laws and policies for child protection against all forms of abuse. However, challenges still exist at this phase. These include; inadequate access and poor quality of education, high child mortality, as well as child abuse, neglect and deprivation.

315 **The challenges in education include**: low access to Early Childhood Care and Education (ECCE) at 15.6% in 2015/16; poor quality of ECCE services; poor quality and efficiency of primary education as evidenced by low literacy rates (49.9% at P.3, and 53.1% at P.6), low numeracy rates (55.2% at P.3, and 50.9% at P.6) and low survival rates in primary at 38% in 2018 due to high drop-out. However, there is no major difference in literacy and numeracy between boys and girls in primary education. These challenges are exacerbated by among others: weak school management; limited teacher capacity; absence of school feeding; limited parental/community participation; low financing and poor assessment methods. With regard to health, child mortality and under-nutrition (as reflected by high child stunting rate of 28.9%) are high. Access to safe drinking water (51%), latrine coverage (19%), and access to hand-washing facilities (34%) are low. Malaria prevalence is high at 19% and poor housing conditions prevail. In addition, child abuse, neglect and deprivation continue; child poverty (55%) and child labor (27%)[11] are high; continued exposure to harmful cultural practices including female genital mutilation (FGM); the disability prevalence rate of population aged 5 years and above is high at 12.5% for any form of disabilities.

316 **Between the age of 13 -19 years, progress has been registered in various areas**. In education and skilling, the number of secondary schools increased by 26% from 2,373 in 2007 to 3000 in 2017, with more growth registered in the private sector at 34% over the same period. There was an increase in: secondary enrolment from 1.23 million in 2009/10 to 1.37 million in 2016/17; the public TVET institutions from 126 in 2012 to

[11] For children aged 5-17 years

152 in 2018; enrolment in formal TVET from 34,380 in 2012 to 95,841 in 2018; universities and other degree awarding institutions from 34 in 2011 to 60 in 2017; and university enrolment from 139,683 to 162,299 over the same period. However, challenges still exist including: low GER (25%) and NER (22%); poor learning outcomes in science subjects due to few science teachers, science laboratories and instruction materials; low completion rates at secondary (senior four) at 34.8% in 2017 (36.2% boys and 33.5% girls), teenage pregnancies; early marriages; lack of fees; gender disparities in enrolment in favour of boys at secondary (gender parity index of 0.88), at TVET (GPI, 0.61) and university (GPI, 0.81); low enrolment at TVET compared to university mainly due to the negative image associated with TVET; rigid supply driven curriculum; weak linkage of TVET and universities with industry; unsustainable financing of TVET and university education; limited internationalization of TVET awards; weak quality assurance systems; fragmentation of mandates within the TVET system; mismatch between university admissions and national skills gaps; low staffing levels; limited focus on incubation of research and STIs into goods and services; and weak alignment between university curricular and lower education sub-sectors. With regard to adolescent health, there is low access to adolescent health friendly services and limited disease surveillance resulting into high teenage pregnancies at 25%, of which 34% come from the lowest wealth quintile compared to 15% from the highest quintile; high HIV/AIDS positivity rate at 3.1%; exposure to violence; low access to sexual and reproductive health services; high substance use and abuse; physical inactivity; poor nutrition; and mental disorders that hinder their ability to grow and develop to their full potential. In addition, adolescents remain prone to harmful cultural practices including FGM, caregiving, adolescent exploitation and also face particularly age and gender related exclusions from socio-economic opportunities, contravening the leave no one behind agenda.

317 **At the adulthood phase (19-64 years), progress has been registered in various areas**. With regard to higher education and skilling, there has been an increase in: public TVET institutions from 126 in 2012 to 152 in 2018; enrolment in formal TVET from 34,380 in 2012 to 95,841 in 2018; universities and other degree awarding institutions from 34 in 2011 to 60 in 2017; and university enrolment from 139,683 to 162,299 over the same period; existence of a qualifications framework; increase in number of university students accessing loans to 8,190 in 2014; and increase in wage employment from 24% in 2009 to 27% in 2016/17. In health, 75% of the population lives within 5 kms from the health facilities; improvement in MMR from 438 to 336 in 2016. With regard to social protection, more access to social security was registered for age categories 31-50 years and 51-60 years at 16.9% and 18.2%, respectively; 148,286 youth established 11,839 projects as at 2017 through the Youths Livelihood Programme (YLP); and the Uganda Women Empowerment Programme (UWEP) is in place supporting 85,336 women beneficiaries through 8,247 projects.

318 **However, challenges still exist, including**: low labour productivity; high youth unemployment at an average of 38% (if adjusted for non-paid labour); low transition

rates from training to employment at 35%; fragmented employment creation initiatives; limited application and uptake of modern and appropriate technology to maximize productivity; lack of institutionalized and integrated human resource planning and development at national and sectoral level; lack of a functional labour market information system; increasing poverty levels from 19.7% in 2012/13 to 21.4% in 2016/17; and increasing income inequality with the Gini coefficient increasing from 0.43 in 1999 to 0.44 in 2009; high burden of communicable diseases (60%) mainly attributed to HIV/AIDS, malaria and TB; rising mortality due to Non-Communicable Diseases (NCDs) including; injuries (13%), cardiovascular illness (9%), cancers (5%), chronic respiratory conditions (2%), diabetes (1%), and others (10%), explaining 40% of the disease burden. In addition, the health worker to population ratio of 0.4 per 1,000 remains below WHO recommended threshold of 2.5 medical staff per 1,000 persons. Further, a wide gap remains (68%) in the super-specialized areas like mental health (100%), dermatology (100%), cardiology (69%), oncology (77%), and neurology (71%). Disability prevalence has remained high with most commonly observed disabilities being loss and limited use of limbs (35.3%), spine injuries (22.3%), hearing difficulties (15.1%), seeing difficulties (6.7%) and mental retardation. In terms of nutrition, 26% of Ugandans face food insecurity with Eastern, South Western and West Nile regions being hardest hit.

319 **At the Old Age (64+), progress has been registered particularly in regard to social protection**. About 201,168 older persons (21.62%) from 61 districts have benefited from the Social Assistance Grant for Empowerment (SAGE) to reduce vulnerability of older persons. However, challenges still exist: old age remains associated with poverty and vulnerability; social exclusion; food insecurity; high NCD burden and limited access to lifelong learning [42% of older persons have never been to school with majority (57%) being female]. For instance, disability grows with aging population and this stands at 2.1% among older persons (65 years and above).

320 Over the next five years, Uganda needs to focus on addressing the challenge of low labour productivity in the country, by: (i) strengthening the foundation for human capital; (ii) developing competences possessed by labour; (iii) improving population health and safety; (iv) improving population management; (v) expanding social protection; (vi) increasing application and uptake of modern and appropriate technology; (vii) institutionalizing and integrating human resource planning and development and (viii) developing a functional labour market information system. Specifically, additional support will be provided for refugee hosting communities.

16.3 Objectives

321 The objectives of this programme are:

1) To improve the foundations for human capital development;
2) To produce appropriately knowledgeable, skilled and ethical labour force;
3) To improve population health, safety and management; and

4) Reduce vulnerability and gender inequality along the lifecycle.

16.3.1 Interventions

322 In order to achieve the above objectives, NDPIII will prioritize the following interventions:

Table 16.1. Human Capital Interventions and Respective Actors

Interventions	Actors
Objective 1: To improve the foundations for human capital development	
1. Institutionalize training of ECD caregivers at Public PTCs and enforce the regulatory and quality assurance system of ECD standards	MoES, MoGLSD, MoFPED, MoLG, Private Sector, DPs
2. Implement a needs-based approach to establish a pre-school class in public schools	MoES, MoGLSD, MoFPED, MoLG, Private Sector, DPs
3. Improve child and maternal nutrition a. Promote consumption of fortified foods especially in schools b. Promote dietary diversification c. Develop the national food fortification policy and law	MoH, MoES, MoGLSD, MTIC MoFPED, MoLG, MAAIF Private Sector, DPs
4. Undertake universal immunization	MOH, MoGLSD
5. Strengthen the family to reduce child deprivation, abuse and child labour	MoGLSD, MoJCA, MoIA, MoFPED, MoLG, Private Sector, CSOs
6. Equip and support all lagging schools to meet Basic Requirements and Minimum Standards (BRMS) in Pre-primary, Primary and Secondary schools	MoES, MoH, MoGLSD, MoFPED, MoLG, MoWE, Private Sector, DPs
7. Roll out Early Grade Reading (EGR) and Early Grade Maths (EGM) in all primary schools to enhance proficiency in literacy and numeracy	MoES, MoLG, LGs, Private Sector, CSOs
8. Implement an integrated ICT enabled teaching, school level inspection and supervision	MoES, MoICT&NG, MoLG, MoFPED
9. Integrate Education for Sustainable Development into the school curriculum	MoES, NCDC, MoLG
Objective 2: To produce appropriately knowledgeable, skilled and ethical labour force	
1. Establish a functional labour market information system	MoGLSD, MoES, UMA, PSFU, MTIC, MoLG
2. Adopt and rollout a flexible demand driven TVET system	MoES, UMA, PSFU, MTIC, MoGLSD
3. Internationalize TVET training by supporting technical colleges to gain international accreditation	MoES, Training Institutions, Accreditation bodies
4. Mainstream a Dual Training System for TVET and University training such that training is institutional-based and work-based	MoES, MoTIC, MoGLSD, UMA, PSFU
5. Provide incentives to increase enrolment in skills-scarce TVET programmes to reverse the currently inverted skills triangle	MoPS, MOES, NCHE
6. Accelerate training for urgently needed skills in strategic growth areas.	MoES, Training providers, MoGLSD, MoTIC, UMA, PSFU, MoIA
7. Provide the required physical infrastructure, instruction materials and human resources for Higher Education Institutions	MoES, MoFPED, NCHE

Interventions	Actors
8. Centralize and link higher education admissions and financing to the National Human Resources Development Plan	MoES, Universities, NPA, HESFEB, NCHE
9. Develop a framework for institutionalizing talent identification, development, nurturing and professionalisation	MoES, Sports Associations, Athletics Associations, Private sector players
Objective 3: To improve population health, safety and management	
1. Prevent and control Non-Communicable Diseases and communicable diseases with focus on high burden diseases (Malaria, HIV/AIDS, TB) and epidemic prone diseases	MoH, UCI, UHI, MoES, MoGLSD, MoLG, MoW&T, MoPS, Private Sector, CSOs, HDPs, OPM, UAC, Cultural and Religious Institutions
2. Increase access to safe water, sanitation and hygiene (WASH)	MWE, OPM, MoH, MoLG, MoW&T, MoGLSD, MoES, MEMD, MoIA, Medical Bureaus, Private Health Providers, HDP
3. Expand community-level health services for disease prevention	MoH, MWE, MoLG, MoGLSD, Private Sector, CSOs, HDPs, Community
4. Increase access to family planning services	MoH, MWE, MoLG, MoGLSD, Private Sector, CSOs, HDPs, Community, Religious leaders, DPs
5. Improve the functionality (staffing and equipment) of health facilities at all levels	MoFPED, MoH, MoLG, MoPS, MoICT&NG, NMS / JMS, Professional Councils, Professional Associations, Medical Bureaus, Private Health Providers, HDP
6. Strengthen the emergency and referral system	MoH, Referral Hospitals, MoLG, MoES, MoIA, Private Sector, CSOs, HDPs
7. Expand geographical access to health care services to Counties and sub-counties without HC IVs & IIIs.	MoFPED, MoH, MoLG
8. Increase access to affordable medicine and health supplies through increase of the local capacity to produce medicines and health supplies	MoFPED, UIA, URA, MoH, NDA, MTIC, UMA, Private Sector, Host LG
9. Implement the national health insurance scheme	MOH, Parliament, MoFPED
10. Promote health research, innovation and technology uptake	MOH, Research & academic Institutions, Health MDAs, MSTI, Private sector
11. Establish and operationalize mechanisms for effective collaboration and partnership for health at all levels	OPM, MoH, MoLG, MWE, MoW&T, MoGLSD, MoES, MEMD, MoIA, Medical Bureaus, Private Health Providers, HDP
12. Improve nutrition and food safety	OPM, MoH, MoLG, MAAIF, MWE, MoGLSD, MoES
13. Improve occupational health and safety to reduce accidents and injuries.	MoH, MoLG, MoW&T, MoGLSD, MoES, MoIA
Objective 4: Reduce vulnerability and gender inequality along the lifecycle	
1. Expand scope and coverage of care, support and social protection services of the most vulnerable groups	MoGLSD
2. Establish early warning systems for disaster preparedness	MoGLSD, UNMA, OPM, MoFPED, NEMA

Interventions	Actors
3. Expand livelihood support, public works, and labor market programs	MoGLSD
4. Expand and reform contributory social security schemes to the informal sector to cover more risks and provide wider range of benefits	MoGLSD, MoFPED

16.3.2 Implementation Reforms

323 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Review the Education Act to extend the education services provided by government to include one year of pre-school;
2) Operationalize human resource development planning framework;
3) Expand double shift options in schools to increase access to basic education;
4) Enforce compulsory retention of children in formal school for at least 11 years;
5) Amend the law to provide for integration industrial training into the regular institutional based training;
6) Introduce a minimum of two years of compulsory TVET training immediately after O'level before enrolling for further education;
7) Implement results-based financing for the health sector;
8) Reduce off-budget financing for the health sector.

16.3.3 Programme Human Resource Requirements

324 The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in Table 16.2.

Table 16.2: Qualifications and Skills Needs for: Human Capital Development and Social Protection Programme

QUALIFICATIONS AND SKILLS	Status	Estimated No
Anaesthesiologists		70
Cardiologists		35
Colon and Rectal Surgeons		40
Critical Care Medicine Specialists		54
Dermatologists		95
Early Childhood Educators		900
Education Managers		(400)
Education Methods specialists		90
Emergency Medicine Specialists		76
Endocrinologists		50
Family Planning specialists		60
Gastroenterologists		45
General Surgeons		70
Geriatric Medicine Specialists		35
Haematologists		25

Hospice and Palliative Medicine Specialists		110
Human Resource Managers		(600)
Infectious Disease Specialists		94
Information Technology Trainers		500
Integrated Talent Management specialists		300
Internists		55
Language Teachers		130
Medical Geneticists		70
Music Teachers		(220)
Nephrologists		50
Neurologists		60
Obstetricians and Gynaecologists		180
Occupational health and Safety specialists		210
Oncologists		35
Otolaryngologists		41
Pathologists		95
Paediatricians		300
Personnel and Careers Professionals Allergists/Immunologists		60
Physiatrists		40
Plastic Surgeons		35
Podiatrists		40
Preventive Medicine Specialists		130
Primary School Teachers		(2000)
Psychiatrists		78
Pulmonologist		90
Radiologists		120
Rheumatologists		66
Secondary Education Teachers		(1000)
Social Protection specialists		200
Special Needs Teachers		190
Sports Medicine Specialists		80
Strategic Human Resource Planning specialists		140
Talent identification and nurturing specialists		200
University and Higher Education Teachers		300
Urologists		200
Vocational Education Teachers		400
Counsellors specialists		(300)

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 17: INNOVATION, TECHNOLOGY DEVELOPMENT AND TRANSFER

17.1 Introduction

325 **Countries that invest significant amounts of resources in research and innovation as well as those who put form to often informal processes of technology importation and adoption (for example through scholarships and exchange programs) are able to industrialize faster**. STI together with ICT enable the acceleration of the entire economy and this supports the digital transformation and the move towards digital (smart) health, digital (smart) agriculture, digital (smart) manufacturing, digital (smart) cities among others. Technology is often imported and adopted through external trade while science and innovation are largely born and bred in-country through tertiary institutions of learning as well as technology incubation centres.

326 **Agenda 2063 posits that by 2023, Africa's Youth will not only be mobile across the continent, but 15% of all new business start-ups will emanate from their ingenuity** and talent acquired in part from the fruits of the skills revolution driven by science, technology and innovation (STI). SDG Goal 17 (target 17.6) puts in place mechanisms for technology transfer and adoption as well as promotion of science and innovation by promoting North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation, and enhance knowledge sharing on mutually agreed terms. The East African Vision 2050 articulates that STI, whether embodied in human skills, capital goods or practices and organizations, is one of the key drivers of economic growth and sustainable development. The Uganda Vision 2040 identifies Science, Technology Engineering & Innovation (STEI) among the key fundamentals required to achieve the Vision aspirations.

327 **However, Uganda has not adequately prepared to use STI to industrialize**. This is because; i) there are no formal mechanisms put in place to facilitate technology transfer; ii) the country's budget allocation to STI is currently very small; iii) the country is yet to establish any incubation and technology parks to facilitate innovation and technology development; and iv) there are no formal established mechanisms linking universities and research institutions with industry to facilitation development and commercialization of new innovations.

328 **The goal of this program, therefore, is to increase development, adoption, transfer and commercialization of Technologies & Innovations** through the development of a well-coordinated STI eco-system.

329 The key targets to be achieved by this program over the next five years include:

(i) Increasing the Global Innovation Index from 25.32 to 35;

(ii) Increasing Gross Expenditure on R&D as a percentage of GDP (GERD) from 0.4 percent to 1 percent;

(iii) Increasing business enterprise sector spending on R&D (% of GDP) from 0.01 percent to 0.21 percent.

17.2Situation Analysis

330 The Global Innovation Index (GII) that captures multi-dimensional facets of innovation and provides the tools that can assist in tailoring policies to promote long-term output growth, indicates that Uganda is not investing significantly in Science, Technology (including ICT), and Innovations. The 2019 GII ranks Uganda at 102 out of the 129 countries ranked by WIPO (Cornell University, INSEAD, and WIPO, 2019). In comparison, neighbouring countries like Kenya, Rwanda, and Tanzania ranked 77, 94 and 97, respectively. The highest ranked country in Africa is South Africa at 63. The country's expenditure on research and development was 0.4 percent of GDP in 2019, business expenditure on R&D is 0.01% and the country logged about 250 patent applications with only 2 registrations.

331 **Whereas some work has been done in putting in place facets that can facilitate STI (institutions, legal framework, infrastructure, among others), the rate of turning innovations into targetable outputs that have impact on economic development is still low.** Therefore, to realise the benefits of the 4th Industrial Revolution, investing in the development of a solid STI eco-system (figure 16.1) is critical. This can be done through:

a. Incorporating science education in the curricula from primary and high school levels to the encouragement of research poles around existing universities;

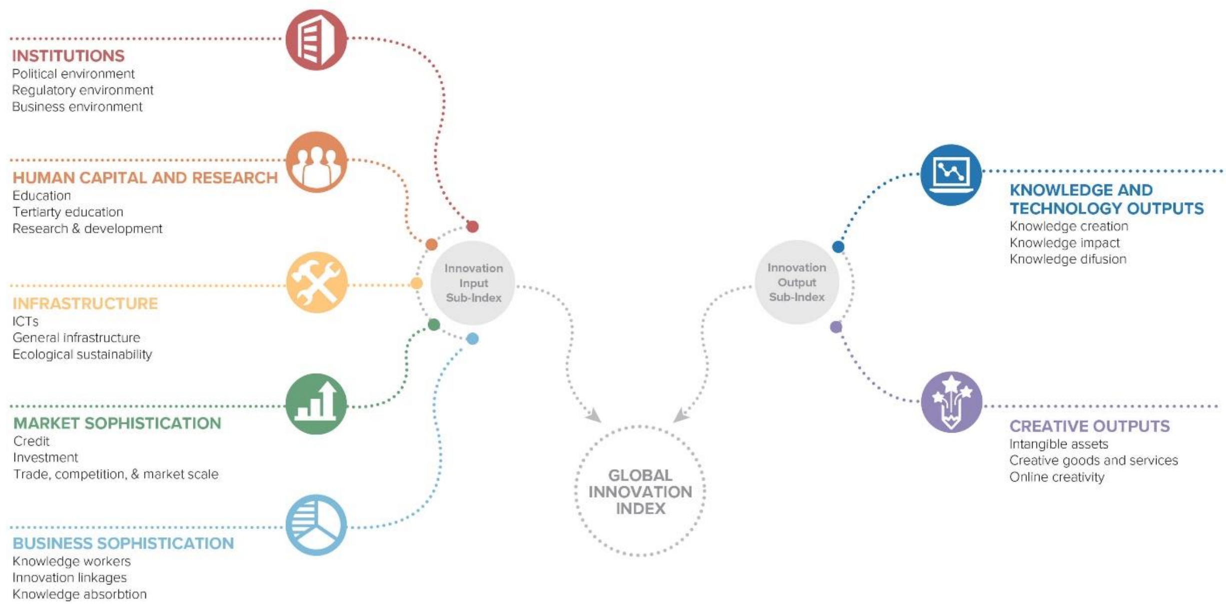
b. Establishing partnerships between university research institutions and industry as a key driver of improving the overall ecosystem making it attractive for human skills;

c. Broadening the culture of science, technology and innovation;

d. Making science and technology accessible to all levels of learning, including the public through the media to show how research can drive high technology innovation and wealth creation, and;

e. Knowledge sharing both nationally and internationally is critical.

Figure 16.1: Pillars of the Global Innovations Index (WIPO, 2019)



17.3 Objectives

332 To achieve the targeted results, the objectives of this program are to:

1) Develop requisite STI infrastructure;
2) Build human resource capacity in STI;
3) To strengthen R&D capacities and applications;
4) Increase development, transfer and adoption of appropriate technologies and innovations;
5) To improve the legal and regulatory framework.

17.3.1 Interventions

333 In order to achieve the programme objectives, the following interventions will be prioritized:

Table 17.1. STI Interventions and Respective Actors

Interventions	Actors
Objective 1: Develop requisite STI infrastructure	
1. Support the establishment and operations of STI incubation and Technology Transfer centres for skills development & technology transfer;	MoSTI, MFPED, MLHUD, LGs, Private Sector, DPs
2. Support the establishment and operations of Science and Technology Parks to facilitate commercialization;	MoSTI, MFPED, MLHUD, MTIC, LGs, Private Sector, UMA, DPs
3. Support academia and research institutions to acquire R&D infrastructure;	MoSTI, MFPED, MLHUD, MTIC, LGs, Private Sector, DPs

Interventions	Actors
4. Initiate and establish funding linkages for STI with multi-national development partners;	MoSTI, MoH, MAAIF, UNCST, UIRI, PIBID, UVRI, UMA, Research Institutions, Academia, Private Sector, DPs
5. Create a favorable policy environment to attract private sector funding for STI;	MoSTI, MoH, MAAIF
6. Establish a Research and Innovation Fund.	MoSTI, MFPED
Objective 2: Build human resource capacity in STI	
7. Develop and Implement a National STI Advancement and Outreach Strategy;	MoSTI
8. Review of the curriculum and delivery methods at all levels of education with a view of promoting creative thinking and;	MoSTI, MoES, NCDC, Academia, Private Sector, DPs
9. Design and conduct practical skills development programmes	MoSTI, MoES, Academia, Private Sector, DPs
10. Design and implement special programmes for Nano technology, space exploration, nuclear technology, bio sciences, ICT and engineering will be put in place	MoSTI, MEMD, MoH, MAAIF, MFPED, UNCST, NPA, Academia, Private Sector, All MDAs, DPs
Objective 3: To strengthen R&D capacities and applications	
11. Develop and popularize a National Research Agenda;	MoSTI, MoICT&NG, MoH, MAAIF, MTIC, UNCST, NPA, EPRC, Academia, Private Sector, DPs
12. Develop and implement a National Science and Technology Innovation Strategy Strengthen the management & commercialization of IPs;	MoSTI, MoICT&NG, MoH, MAAIF, LGs, UIRI, UNCST, UMA, Private Sector, DPs
13. Develop and maintain a national STI Information Management System (including a database of new and on-going Scientific Research, technologies innovations and indigenous knowledge from public and private sectors);	MoSTI, MoICT&NG, MFPED, MoH, MAAIF, UBoS, NPA, All MDAs, Private Sector, DPs
14. Increase investment in R & D in key priority sectors like; agriculture, Oil & Gas, Energy, Health, Transport;	MoSTI, MEMD, MoH, MAAIF, MoWT, MFPED, NARO, NaGRIC, Academia, Private Sector, DPs
15. Establish research collaborations at local, regional and international level;	MoSTI, MEMD, MoH, MAAIF, MoWT, MFPED, NARO, NaGRIC, Academia, Private Sector, DPs
16. Develop, oversee and implement programmes in new and emerging areas of space, marine, nuclear, data and climate science, nanotechnology, bio-technology among others;	MoSTI, MEMD, MoH, MAAIF, MFPED, UNCST, NPA, Academia, Private Sector, All Sectors, DPs
17. Create capacity on application of drones, satellite imagery through GIS, real-time disaster modeling, and widespread connectedness improve emergency response and production;	MoSTI
18. Increase availability of and access to multi-hazard early warning systems and disaster risk information to save lives and reduce losses to disasters.	MoSTI, OPM
Objective 4: Increase development, transfer and adoption of appropriate technologies and innovations	

Interventions	Actors
19. Develop and implement a National Technology Transfer Strategy;	MoSTI, MoICT&NG, NITA-U
20. Develop strategic local and international partnerships and cooperation on technology transfer;	MoSTI, Academia, Private Sector, All Sectors, DPs
21. Support the development of standards for domestic products and services;	MoSTI, MTIC, UNBS, UNCST, Private Sector
22. Increase public investment in technology transfer.	
Objective 5: To improve the legal and regulatory framework	
23. Develop strategies to domesticate and implement international conventions and treaties that facilitate STI;	MoSTI, MoFA
24. Develop policies, laws and regulations for technology development, transfer and market development.	MoSTI, MoICT&NG, MoJCT, Parliament, Cabinet Secretariat
25. Develop, review and amend policies to promote the development and uptake of technologies	MoSTI, MoJCT, Parliament, Cabinet Secretariat
26. Develop a framework for promotion of multi-sectoral and multilateral collaborations	MoSTI, MoFA

17.3.2 Implementation Reforms

334 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Increase funding to STEI to a minimum of 2 percent of GDP every year;

2) Establish a framework where MDAs implement STEI joint initiatives between their R&D departments, academia and industry;

3) Review the education curriculum to mainstream STEI and R&D to produce globally competitive human resource.

17.3.3 Programme Human Resource Requirements

335 The key skills and competencies required to fully implement this programme and realise expected goals in the next five years in line with framework of International Standards Classification of Occupations (ISCO) and the UNESCO International Standard Classification of Education (ISCED) are highlighted in table 17.2.

Table 17.2: Qualifications and Skills Needs for: Innovation, Technology Development and Transfer Programme

Qualifications and Skills	Status	Estimated 5-Year Gap
Animal Geneticists		303
Application Support Specialists		378
Applications developers		531
Applications Engineers		321
Astrobiology specialists		120
Astrochemistry and cosmochemistry specialists		100

Qualifications and Skills	Status	Estimated 5-Year Gap
Astronomists specialists		100
Big data analysts		320
Business intelligence (BI) analysts		240
Clinical research specialists		220
Clinical manufacturing experts		290
Commercial solicitors and advocates professionals		182
Cosmology experts		102
Current Good Manufacturing Practice (cGMP) compliance professionals		95
Digital Photographing specialists		(727)
Economists		(2,029)
Entrepreneurial Investment specialist		(3,927)
Financial investment management specialists		120
Food microbiologists		102
Food researchers		290
Food Technology and Processing specialists		936
Forensic astronomy specialists		342
Geologists and Geophysicists		392
Holography and Optics Technicians		271
Intellectual Property specialists		293
International relations and diplomatic experts		362
International trade experts		230
IT and digital technology specialists		310
Library and Information Science specialists		(520)
Licensing professionals		(432)
Life Sciences specialists		209
Machine learning and Artificial Intelligence (AI) specialists		229
Machine learning Engineers		321
Manufacturing Engineers		219
Mechanical Engineers		(293)
Micro-g environment research		320
Multimedia Artists and Animation specialists		221
Nanotechnologists		100
Network analysts		(215)
New Ventures specialists and advisors		320
Optical Assembly Technicians		250
Parenteral process technology experts		210
Planetary science specialists		167
Plant geneticists/ Agriculture Genetics/crop Genetics		546
Project investment appraising specialists		400
Scientific researchers		326
Social science researchers		(1,982)
Software Developers		490
Space archaeology specialists		100
Sterile manufacture and sterile operations experts		292
Systems Analysts		263
Taxidermy specialists		463
Trade and technology transfer negotiation specialists		180
Urban and regional planning professionals		690
Weed scientists		987

Key for the table

Required, But No supply at all	**Required, But supply is inadequate**	**Required, But supply exceeds demand**

CHAPTER 18: COMMUNITY MOBILIZATION AND MINDSET CHANGE

18.1 Introduction

336 **Community mobilization for mind-set change towards development can have far-reaching and 'explosive' repercussions on the lives of the people and society**. Mind-set change brings with it great benefits, including public appreciation of the country's development agenda and increased awareness for ownership. It helps to enhance the well-being of the people or groups by changing their attitudes, norms, practices and behaviours. In addition, it will helps build capacities of communities to assess their needs, identify options for addressing them, prioritize, leverage resources, and create sustainable solutions.

337 **The regional and continental perspectives and aspirations as espoused in Agenda 2063 is a strong cultural identity, common heritage, values and ethics**. The EAC Vision 2050 also calls for a systematic mind-set change on the way to economic development, which must encompass the greater Pan-Africa vision, Regional Values and adoption of a productivity culture. In addition, the Uganda Vision 2040 highlights the need for development and promotion of a well-defined ideology and a national value system which is subscribed to by every citizen. The 'mind-set' of Ugandans should be brought to the forefront of national attention and considered as a key issue in the discourse of national development.

338 **Even so, lack of a national value systems has led to a weak sense of responsibility and ownership of development programmes** among the general populace. This is mainly due to: (i) a dependency syndrome; (ii) a high selfish tendency; (iii) short-sightedness; (iv) a weak sense of nationalism/ patriotism; (v) and a weak community development function.

339 **The goal of this program therefore is to empower families, communities and citizens to embrace national values and actively participate in sustainable development.**

340 The key results to be achieved over the next five years are:

(i) Increase the proportion of families, citizens and communities informed about national and community programmes by 90%;

(ii) Increase the participation of families, communities and citizens in development initiatives by 80%;

(iii) Increased media coverage of national programmes;

(iv) Increased spirit of accountability and transparency;

(v) Increased social cohesion and civic competence (participation in government programmes, values, social justice-equity, access, participation and rights, knowledge and skills-functional literacy);

(vi) Increased uptake and/or utilisation of public services (education, health, child protection etc.) at the community and district level.

18.2 Situation Analysis

341 **The 1995 Constitution of Uganda, Part IV (iii) mandates the state to mobilize, organize, and empower its citizens to build an independent and sustainable foundation for the development**. The Local Governments Act (Cap 243) also offers a statutory role for local authorities to take lead in community governance and promote the well-being of the community. This is provided through the practical mechanisms in effective community leadership; integrating national priorities in planning and various agencies at the local level; implementing development programmes and monitoring in line with the national priorities. However, most local governments have low resource revenues to support implementation of community mobilisation initiatives.

342 **In addition, the Equal Opportunities Act 2007 provides for sensitizing and mobilizing communities to demand for equal treatment or consideration** in the enjoyment of rights and freedoms, attainment of access to services, education, employment and physical environment as well as the participation in the social, cultural and political activities regardless of sex, age, race, colour, ethnic origin, tribe, creed, religion, health status, social or economic standing, political opinion or disability.

343 **Government has tried inculcating the right attitudes and mind-sets through an expansive community involvement approach such as Barazas to inform bottom-up participative planning and decision-making**. Government has also invested in the promotion of patriotism clubs to enhance civic education and initiated the Harmonized Participatory Planning Guide to deepen community involvement and ensure actors are well coordinated at local Government level. In addition, Government has invested in mobilizing and facilitating the participation of Ugandan in the diaspora to support the country's growth and development.

344 **Further, efforts towards mind-set change have been made through such projects as the establishment of the National Farmers Leadership Centre** (NFLC) - a 'village self-help' programme, which was formally opened in Uganda in May 2016. NFLC approaches the mindset change issue from the viewpoint of 'skilling' by training around for mindset change (Saemaul Undong) and agricultural development. However, skilling has to be complemented with work and social ethics. The country should go beyond acquiring knowledge and capacity to espouse mind-set change if it is to achieve 'social transformation'.

345 **Nevertheless, there is general lack of responsibility and ownership of government programmes is a serious obstacle to development**. Ugandans are very fond of complaining and not acting. Everywhere complaints abound about a failing healthcare and education system, of corruption and abuse of office. But one hardly reads a story of what those complaining are doing to change the situation. The uptake in appreciating

and participating in community initiatives is attributed to low education levels of citizens. About 26 percent of Ugandans aged 10 years and above are still illiterate; 38.5 percent of pupils who enroll in P.1 do not complete P.7; and 12 percent of Ugandans aged 6-12 years, 3 percent of those aged 13-18 years and 6 percent of those aged 19-24 years have never attended school despite the existence of free universal primary and secondary education.

346 **A 'dependency syndrome' is so widespread throughout the country and at all levels in the Ugandan society**. There is a general tendency of the people waiting for the government to come to their aid for the most basic things that they can do for themselves. Seventeen percent of rural households do not have pit latrines while 63 percent have no access and are not using a hand washing facility (NPHC 2014). This greatly leads to poor health outcomes among families and communities due to limited water and sanitation facilities. Limited sensitization and involvement on the importance and maintenance of water sources like boreholes has led to low ownership after project implementation for sustainability.

347 **There is a high tendency among Ugandans to consider self-interests before anything else**. A major hindrance to development is the civil servants who are devoid of any sense of duty and responsibility in the delivery public services. This not only breeds conflict of interest and corruption, but also, more fundamentally, drastically undercuts the government's performance. Economic loss due to disruptions and delays in public service, not to mention outright acts of corruption is enormous.

348 **Short-sightedness is quite evident in daily work practices of many Ugandans**. Sloppy work, the habit of leaving things undone, a failure to keep to deadlines and promises, etc. are the 'norm' rather than the exception in a variety of fields ranging from unskilled chores to construction projects. Continuous supervision is required to ensure that work is accomplished.

349 **Weakness in the sense of nation and patriotism is another general trait in Uganda**. Absence of a properly articulated common national ideology has denied the population of the opportunity to rally around a common goal and value system to instil values such as; patriotism, work ethics, integrity, positive attitudes and mind-sets, national identity, and positive cultural practices as the basis for participatory civic awareness and engagement. It has also compromised the ability of institutions to manage information flow to guide and shape the mindset and attitudes of the population. There is still evidence of ideological disorientation because citizens are still inhibited in terms of the consciousness indicated in bad cultural practices.

350 **Participation of cultural and religious institutions in community development programmes has not been institutionalized**. The role of cultural and religious institutions in instilling and nurturing values, norms and behaviors towards a common goal have not been harnessed. Government has not effectively harnessed the power of society (or 'social capital') for economic prosperity and community development. Also,

some cultures still practice negative cultural behaviors such as child sacrifice, FGM, gender-based violence (GBV) and limited use of indigenous knowledge to support creative industries.

351 **The expansive community development structure, from the national level down to the parishes has had limited impact on mobilizing the population to engage in meaningful productive activities to generate household income**. This partly due to: underfunding; lack of basic resources including transport; coordination and reporting tools; and training materials to effectively coordinate agencies and mobilize communities. Community mobilization infrastructure at the local governments' levels including; halls, play grounds, libraries, among others is either dilapidated or lacking, especially in the new districts.

352 **In addition, there is duplication of the community mobilization function across sectors, making it incoherent and disjointed**. Cited among the MDAs carrying out Community Mobilization prior to service delivery include: Health, Water and Environment, Education and Sports, Works and Transport, Energy, Agriculture, Tourism, Trade and Industry, Justice Law & Order, Public Sector Management and Local Government. This is because implementation of their projects is at community or household levels yet the beneficiaries are not always involved in the design and implementation. This contributes to lack or limited ownership and sustainability for most public projects.

353 Going forward, experiences need to be taken from the NFLC and rolled out as a basis for social capital mobilization for rural community development. From this, communities are no longer simply recipients of, or followers to, the central leadership, but they turn out to be active participants and leaders or change agents for community development. In the next five years therefore, emphasis will be placed on actively engaging families, communities and citizens to provide more public awareness, sensitization for positive mind-set change, and reducing negative cultural beliefs that hinder people to participate in development programmes.

18.3 Objectives

354 In order to address the above constraints challenges, the objectives of this programme are to:

1) Enhance effective mobilization of families, communities and citizens for national development;
2) Strengthen institutional capacity of central, local government and non-state actors for effective mobilization of communities; and
3) Promote and inculcate the National Vision and value system.

18.3.1Interventions

355 To achieve the above objectives, this plan will prioritize the following interventions under this programme:

Table 18.1. Community Mobilization Interventions and Respective Actors

Interventions	Actors
Objective 1: Enhance effective mobilization of families, communities and citizens for national development.	
1. Review and implement a comprehensive community mobilization (CMM) strategy a. Prepare a Community Mobilization and Empowerment (CME) Coordination Framework b. Design and implement activities aimed at promoting awareness and participation in existing government Programs;	MOGLSD, ICT&NG
2. Develop and implement a national civic education programme aimed at improving the level of awareness of roles and responsibilities of families, communities and individual citizens	MOGLSD, ICT&NG, UHRC, EC
3. Design and implement a program aimed at promoting household engagement in culture and creative industries for income generation;	MOGLSD
4. Develop a policy on Diaspora engagement;	MOGLSD, MOFA
5. Conduct awareness campaigns and enforce laws enacted against negative and/or harmful religious, traditional/cultural practices and beliefs.	MOGLSD
Objective 2: Strengthen institutional capacity of central, local government and non-state actors for effective mobilization of communities	
1. Equip and operationalize Community Mobilization and Empowerment (CME) institutions/structures of central, local government and non-state actors for effective citizen mobilization and dissemination of information to guide and shape the mindsets/attitudes of the population	MOGLSD, MoLG, LGs, Non-State Actors
2. Establish and operationalize Community Development Management Information System (CDMIS) at Parish and Sub-county level.	MOGLSD, LGs, MoLG
Objective 3: Promote and inculcate the national Vision and value system	
1. Develop and implement a national service program;	MOGLSD, MOPS, UCSC, MOES, MODVA
2. Popularize the national vision, interest and common good for the citizenry	ICT&NG, MOGLSD, NPA
3. Establish a National incentives framework including rewards and sanctions for best performing workers, leaders and communities;	MoPS, OP (Ethics Integrity)
4. Develop and/or operationalize a system for inculcating ethical standards in the formal, informal and all communities.	MoGLSD, MoLG

18.3.2 Implementation Reforms

356 The key implementation reform required to fully implement this programme is to establish a Technical Coordination Committee of the Community Mobilization and Mind-set change programme at Ministry of Gender, Labour and Social Development (MGLSD) to coordinate joint activities with the Ministry of ICT and National guidance (MoICT&NG) and Office of the President.

CHAPTER 19: GOVERNANCE AND SECURITY PROGRAMME

19.1 Introduction

357 **Good governance is the panacea towards accelerated development in economic, political and social sectors of a nation**. Efficient political and economic strands promote social order. A stable, predictable and secure political environment is a pre-requisite for socio-economic development. This involves protecting gains from internal instability and external aggression. The society fabrics at individual, household, community and national levels must be at peace for any development to take place. The Rule of law is the foundation of a free society that places limits on government authority such that all citizens of that society including the rulers, lawmakers, judges, and members of all social classes are equally subject to a common set of laws and by implication, are not subject to government action that is unsupported by the law.

358 **The 2030 Agenda (SDG 16) recognises the need to build peaceful, just and inclusive societies that provide equal access to justice and strong institutions**. Aspiration 3 of Agenda 2063 is to have an Africa of good governance, democracy, respect for human rights, justice and the rule of law. Pillar 3.6 of the EAC Vision 2050, calls for democratic values, human rights, access to justice and the rule of law entrenched in all East African Partner States. According to the Uganda Vision 2040, the tenets of good governance include constitutional democracy, protection of human rights, rule of law, political and electoral processes, transparency and accountability, government effectiveness and regulatory quality and security. Particularly the Vision 2040 identified human rights observance as a critical feature of good governance and the rule of law.

359 **However, weak adherence to the rule of law and existence of internal and external security threats threaten governance and security.** This is due to: (i) weak policy, legal and regulatory frameworks for effective governance; (ii) weak business support environment; (iii) low respect for and observance of human rights and fundamental freedoms; (iv) limited access to and affordability of justice; (v) high crime rates (vi) weak societal security structure and (vii) low recovery rate of public funds from individuals implicated in corruption.

360 **The goal of the programme is therefore, to improve adherence to the rule of law and capacity to contain prevailing and emerging security threats.**

361 The key results to be achieved over the next five years are:

(i) Changing the Corruption Perception Index from 26% to 35%;

(ii) Increasing the Democratic Index from 6.5% to 8.6%;

(iii) Increasing the percentage expenditure on R&D by Security Sector from UGX 7 bn to 10 billion;

(iv) Increasing the percentage of citizens participation in electoral processes from 80% to 90%;

(v) Increasing the rate of case disposal from 60% to 75%;

(vi) Increasing the percentage of youth engaged in national service from 40% to 65%;

(vii) Decreasing the percentage of backlog cases in the system from 18% to 10%; and

(viii) Increasing the percentage of districts with one stop frontline JLOS service points from 67.5% to 90%.

19.2 Situation Analysis

362 **Whereas the internal security situation in the country is relatively good there exists isolated incidences that threaten people's lives and property**. In addition, the many unresolved conflicts in the Great Lakes region have the potential to draw in Uganda due to the transnational nature of some of these communities and the conflicts involved. Further, cyberspace is now a medium for disinformation among competing commercial interests, ideological adversaries, governments, and extremists, and it is a battleground between cybercriminals and law enforcement. Cyberattacks at the level of cyberwar have already occurred, and are occurring with increasing frequency and effect.

363 **The introduction of ICT into crime prevention, including CCTV cameras, Criminal Database, Finger Print Scanners, DNA and Forensics, Tracking, communication, has also improved the way in which the police and other services operate**. The police has invested in mobilizing and empowering communities to prevent violence and crime through ICT using innovations such as UPF "Mobi" and "SUMA" applications. These, along with other strategies have led to reduction in the crime rate from 667 to 579.2 for every 100,000. However, there is still a challenge of kidnaps and high profile murders whose investigations have not been concluded. There is need for formulation of a national policy on crime prevention, strengthen the capacity of crime fighting agencies including investigation, prosecution and correctional institutions to reduce the crime rate and effectively and efficiently respond to crime. With the growth of more sophisticated, technology based and syndicated crime, the methods and skills required of law enforcement personnel needs to be enhanced to meet the new challenge.

364 **Under the Legislation, Representation and Oversight functions a number of successes have been registered**:

(i) 54 bills passed into law out of the targeted 70 bills as of FY 2018/19. Six (6) bills were withdrawn by the Executive leaving 20 bills among the unfinished lot;

(ii) Representation of electorates registered improved in number from 417 MPs in the FY 2015/16 to 433 MPs in FY 2018/19 with exclusion of the UPDF representatives and Ex-Official Members. The Political Party representations maintained their proportions during the NDPII period where NRM has maintained an average of 71 percent, FDC 9 percent, DP 4 percent and UPC 1 percent MPs in the Parliament. There was an increase in the women representation to 34.9% by FY 2018/19;

(iii) The Oversight function registered 77 percent of the targeted Oversight committees' meetings. 73 percent of the targeted tabled reports were disposed of during Plenary, 75 percent of the targeted Ministerial Statements were delivered and 86 percent of the targeted questions were answered. Due to the oversight function of Parliament and the actions of the anti-corruption institutions there was a slight improvement in the score of the Corruption Perception index to 26/100 in 2018 from 25/100 in 2015.

365 **However, there were still a number of challenges** that include: i) Inadequate appreciation of multiparty democracy that has led to friction among the individual Members of Parliament, their political parties and the electorate; ii); delays in processing of bills into acts of Parliament affecting the delivery of services iii) Inadequate information on the implementation of the international protocols which makes it challenging for Parliament to oversee Government's commitments and/ or activities carried out at international level; iv) Backlog of the Constitutional reports for consideration by the Parliamentary oversight committees v) Increased instances of maladministration and administrative injustice in the public sector resulting into ineffective service delivery; xi) corruption in the judicial system.

366 **Public trust and confidence in JLOS institutions has increased from 49% to 59% since 2016 (LASPNET State of Access to Justice Report 2017), however, challenges exist**:

(i) Case backlog and delays in delivery of justice remains one of the main impediments in access to justice. The level of backlog now stands at 18% and the average time taken to dispose of cases stands at 810 days.

(ii) Access to JLOS services – the Uganda Vision 2040 prioritized improving access to justice through enhancing physical presence of institutions involved in the delivery of justice. This was to be achieved through construction of justice centres to ensure completeness of the chain of justice across all districts. Currently, the sector has one-stop front line service point in 66.7% of 117 the districts. There is a weak justice system for children with limited child friendly services in JLOS institutions. The national diversion rate is now 76.3% compared to the baseline of 75% and the 2020 target of 80%.

(iii) Access to legal aid is essential to guaranteeing equal access to justice for all, especially for citizens who do not have sufficient financial means. Although, the proportion of magisterial areas accessing state funded legal aid services has increased from 26% to 30.4%, this is still too low. Currently, legal aid service provision is restricted to mainly legal representation in certain legal matters especially at higher court levels by the state. Legal aid service provision at lower courts is minimal and usually provided by non-state actors. Legal aid is limited for those unable to afford advocates. There is need to fast track the legal aid law as well as enhance the State Brief Scheme and Pro-bono services.

(iv) Transparency and accountability - The clearance rate of corruption cases by the Anti-Corruption Division (ACD) increased from 96% in 2016/17 to 97.7% in 2017/18 while the clearance rate of complaints against lawyers, police and JLOS officers increased from 75% in 2016/17 to 97.7% in 2017/18. The implementation of the Sector anti-corruption strategy is on track. The corruption perception index improved from 0.25 to 0.26. Furthermore, the ODPP made applications for 7 orders (in respect of 138 properties) for restraining properties of officers implicated in corruption cases. Consequently, 7% of the value of proceeds of crimes was recovered vis-à-vis the set target of 20%. The low performance was due to; on-going valuation process of some properties, high cost of valuation, understaffing in Government Valuation Department. However, the recovery processes are constrained by the weak asset recovery frame work and the service is concentrated in Kampala.

367 **In particular, there is need to strengthen the capacity and operations of the commercial justice institutions to provide fast and effective dispute resolution in all the specialized areas and in the area of Alternative Dispute Resolution**. Furthermore, land justice disputes continue to take up a large proportion of the load in terms of case backlog in the civil arena and have been noted to contribute to several criminal matters, including murders, arsons, assaults and trespass. The delay in disposal of these matters also means that vast assets are tied up in litigation for prolonged periods, therefore hindering economic development processes. Strategies will be employed to give particular attention to the disposal of land matters and to strengthen the institutions that are specialised in this field.

368 **Uganda's reliability of policing service (index) dropped from 4.0 in 2017 to 3.8 in 2018** (Global Competitiveness report). The daily average population of prisoners in custody has been on the upsurge from 30,509 prisoners in FY2010/11 to 53,033 prisoners in FY2017/18 – an Annual growth of 8.3% against the 3.0% national population growth. However, investments in rehabilitation of inmates led to a reduction in the rates of re-offending from 23% in 2015 to 17% in 2018. Also, as a result of investments into crime fighting agencies the conviction rate increased to 62% from 53% in 2014.

369 **JLOS institutions are frequently accused in cases of human rights violations and this erodes public confidence in law enforcement agencies**, legitimacy in upholding the rule of law, and the resultant awards against Government lay a heavy financial burden on the State. Additionally, the inadequate knowledge within the public domain and citizenry contributes to low levels of effective demand for rights, implementation of citizen responsibilities, accountability, and therefore creates opportunity for impunity. There is need to strengthen institutional compliance of service delivery systems as well as enable people to appreciate/know their rights/service points and standards.

19.3 Objectives

370 In order to address the above constraints, the objectives of this programme are to:

1) Strengthen the capacity of security agencies to address emerging security threats;
2) Strengthen policy, legal, regulatory and Institutional frameworks for effective governance and security;
3) Strengthen people centred security, legislation, justice, law, and order service delivery system;
4) Reform and strengthen JLOS business processes to facilitate private sector development;
5) Strengthen transparency and accountability systems;
6) Strengthen citizen participation in democratic processes; and
7) Strengthen compliance and implementation of the Uganda Bill of Rights.

19.3.1Interventions

371 In order to achieve the above objectives, NDPIII will prioritise the following interventions under this programme:

Table 19. 1. Governance and Security Interventions and Respective Actors

Interventions	Actors
Objective 1: Strengthen the capacity of security agencies to address emerging security threats	
1. Improve the capacity and capability of security sector through training and equipping personnel;	MODVA
2. Enhance the welfare of security sector personnel;	MODVA
3. Seamlessly transition, resettle and reintegrate veterans into productive civilian livelihoods;	MODVA
4. Enhance research, development and engage in productive activities;	MODVA
5. Establish and operationalize a National Service Program;	MODVA
Objective 2: Strengthen policy, legal, regulatory and institutional frameworks for effective governance and security	
1. Review and enact appropriate legislation;	Parliament, MDAs
2. Review, and develop appropriate policies for effective governance and security;	MoDVA, OP
3. Develop and enforce service delivery standards;	MDAs, JLOS, Anti-corruption institutions
4. Simplify, translate and make available laws, policies and standards;	Parliament, ULC, MDAs, DEI
5. Improve the legislative process in Parliament and Local Governments to ensure enhanced scrutiny and quality of legislation	Parliament, LGs
Objective 3: Strengthen people centred delivery of security, justice, law and order services	
1. Develop appropriate infrastructure for legislation, security, justice, law, and order;	Parliament, JLOS Institutions, MoDVA

Interventions	Actors
2. Promote equitable access to justice through legal aid services;	JLOS
3. Strengthen transitional justice and informal justice processes;	JLOS, LG courts
4. Enhance crime Prevention;	UPF
5. Strengthen response to crime;	UPF, UPS, Judiciary, MoJCA
Objective 4: Reform and strengthen JLOS business processes to facilitate private sector development	
1. Re-engineer business processes to reduce red tape in service delivery especially regarding commercial and land dispute resolution; a. Strengthen case management systems b. Reform rules and procedures c. Increase efficiency of Court Processes d. Integrate and automate information management systems e. Strengthen capacity of duty bearers f. Enforce commercial laws g. Roll out alternative dispute resolution	JLOS Institutions
Objective 5: Strengthen transparency and accountability	
1. Strengthen the oversight role of Parliament over the Executive;	Parliament
2. Enhance the Public Demand for Accountability;	Citizenry, URA, OPM (Barazas), MDAS, LGs
3. Strengthen the prevention, detection and elimination of corruption;	IG, OAG, DEI, PPDA, JLOS institutions
4. Strengthen and enforce Compliance to accountability rules and regulations	OAG, MoFPED, Parliament
5. Mainstream Anti-Corruption initiative (transparency, Accountability and Anti-Corruption- TAAC) initiative in all MDA Plans, Projects/Programmes	Anti-corruption institutions, NPA, MDAs, LGs
Objective 6: Strengthen citizen participation and engagement in the democratic processes	
1. Strengthen democracy and electoral processes; a. Increase participation of the population (including vulnerable persons) in civic activities	EC, Parliament, CSOs, UHRC
2. Strengthen the representative role of MPs, Local Government councillors and the Public;	
Objective 7: Strengthen compliance with the Uganda Bill of Rights	
1. Implement the Uganda National Action Plan on Human Rights and SDGs; a. Translate and disseminate the bill of rights in local languages b. Improve the sanitation and hygiene in detention facilities	UHRC, DPs, OPM, NPA, JLOS, UPF
2. Integrate HRBA in policies, legislation, plans and programmes	NPA, UHRC

19.3.2Implementation reforms

372 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Strengthen the capacity of the Uganda Police Force through specialized trainings to combat sophisticated crimes such as cyber-crimes.

2) Incorporate the use of ICT in case management and electoral processes.

CHAPTER 20: PUBLIC SECTOR TRANSFORMATION

20.1Introduction

373 **Poorly functioning public sector institutions and weak governance are major constraints to equitable development**. The public service plays a vital role in providing public goods, such as defence, public order, property rights, macroeconomic management, environment protection, and coordinating private sector activity. As countries get more globalised governments face increasingly complex and cross-cutting issues, such as economic volatility, climate change and migration. Public servants are under greater public scrutiny as citizens are becoming increasingly aware and impatient. To this end, public service delivery needs to develop new dimensions to enable appropriate response to changes in the global environment as well as to the demands of an active citizenry.

374 **The aspiration of Agenda 2030 is to build effective, accountable and inclusive institutions at all levels by 2030** (SDG 16). Agenda 2063 (Goal 12) calls for building capable institutions and transformed leadership at all levels. The EAC Vision 2050 states the need to raise the level of R&D, science and technology and innovation in the public sector to enhance industrial competitiveness. Additionally, the Uganda Vision 2040 aims to institute measures to strengthen public sector management and administration by ensuring that the public officials are fully responsible and accountable for all the resources under their control.

375 **However, weak performance, low accountability for results and unsatisfactory work ethic in the public sector that does not adequately respond to the needs of citizens and the private sector.** This is due to: (i) poor accountability systems and undue focus on processes rather than results; (ii) Inefficient government systems and processes; (iii) duplication of mandates; (iii) inadequate talent management across Government; (iv) an inefficient and inadequately funded decentralized system of Government; (v) Limited computerization of government systems; and (v) high level of corruption.

376 **The goal of the programme is therefore, to improve public sector response to the needs of the citizens and the private sector**.

377 The key results to be achieved over the next five years are:

(i) Increase Government effectiveness Index from -0.52 to 0.01;

(ii) Reduce corruption as measured by the corruption perception index from 26% to 35%;

(iii) Increase the attractiveness of Uganda as an investment destination as measured by the Global competitiveness index from 48.9 to 55.

20.2 Situation Analysis

378 **Improving public sector performance and effective responsiveness to citizen needs requires addressing three facets of the public sector: the people (civil servants, their leaders and citizens); the public sector architecture and systems; and the resources required**. Improving public sector performance is possible if the public servants are accountable for results. Public servants are accountable for results if citizens demand accountability for results and value for money. This enhances the work ethic and attitudes as public servants are incentivized to deliver. Further systems to hold public servants need to adequately measure performance for results in a transparent manner. Public servants require an efficient public sector architecture and systems to effectively deliver results. However, this is possible when resources are adequately identified and efficiently deployed.

379 **Efforts to improve public sector performance have been biased to processes, neglecting the people who deliver in these processes**. A series of public sector reforms (PSRs) have been implemented in Uganda since the 1980s. These began with structural adjustment programmes in the early 1980s and later reforms in all key government sectors, such as public service, public finance, public sector coordination, auditing, and anti-corruption, were implemented. While reforms in the 1980s and 1990s aimed at achieving public sector efficiency, those in the 2000s focused on achieving effectiveness through public financial management initiatives and modern management practices, such as Results Oriented Management (ROM). Despite these reforms, the public sector is not accountable for results with low work ethic to respond to citizen needs. This largely that reforms to ensure that public sector servants are accountable for results have been weak or largely not enforced.

380 **Accountability systems and institutions have been strengthened but they largely focus on processes rather than holding the public sector accountable for results**. In 2000s Uganda adopted the ROM to consistently and systematically enhance the development of individual, institutional, and state capacity, and subsequently the sustainability of improvements in service delivery. It was expected that ROM will enhance accountability for results and build confidence and trust in public service delivery, and subsequently to transforming Uganda's economy and society. On paper, the tenets of ROM are in place. Results based planning, budgeting, personnel performance, monitoring and evaluation and management information systems have been set up.

381 In 2003 Cabinet approved the National Integrated Monitoring and Evaluation Strategy (NIMES) under the Office of the Prime Minister (OPM) to ensure coordinated monitoring and evaluation of all government programmes. This was followed by the Public Sector Reform Programme (PSRP- 2005/06–2010/11) that sought to address several public sector challenges such as skills gaps and weak management; weak performance and accountability and poor pay. The Comprehensive National Development Planning Framework (CNDPF) approved by Cabinet in 2007 sought to

ensure coordination in planning and budgeting across agencies of government. The CNDPF provided ground for the National Development Plan (NDP) and the Uganda Vision 2040 that succeeded the Poverty Eradication Action Plan (1997-2009). Output based budgeting has since been reformed to program-based budgeting. Nevertheless, performance contracts for all accounting officers have not been administered and enforced. Budgets do not adequately respond to plans and results. The alignment of the budgets at national and LG levels also continues to be a challenge. Monitoring and evaluation reports are not implemented and enforced. This has weakened public service accountability for results and has built a less than satisfactory work ethic in public service.

382 **Some progress has been made to develop service delivery standards that provide a benchmark against which to measure and hold public servants accountable but is not across the entire government and where they exist, they are not enforced**. Service delivery standards have been developed in Health, Education, Environment, Physical planning and Water but these have never been approved sectors nor have they been certified by NPA and Parliament. The absence of these makes it difficult for holding public servants accountable and accessing service delivery progress.

383 **Public sector reforms in government systems and architecture have been undertaken to improve realization of results, nevertheless, they are yet to yield significant results**. In 2018 a Public Service Restructuring report that aimed at stopping mushrooming of agencies and duplication of mandates was produced but is yet to be implemented. Further, the report focused only on government Agencies neglecting the need for necessary reforms in the mainstream Ministries which led to creation of these agencies in the first place. As such, implementation of the report recommendations might not achieve the desired results unless, a comprehensive public sector architecture study is carried out and implemented.

384 In regard to Public Financial Management (PFM) several reforms have been implemented since the early 1990s, achieving the maintenance of robust and stable fiscal and macro-economic policies and fundamentals, more accurate planning and budgeting, enhanced control and management of public funds and higher standards of scrutiny and oversight of collection and utilization of public resources. These include the enactment of the Budget Act, 2001; the 2003 Public Finance and Accountability Act (PFAA), the Public Procurement and Disposal of Public Assets (PPDA) Act, 2003; the Public Finance and Accountability Regulations, (PFAR), 2003; and the Treasury Accounting Instructions (TAI), 2004; the implementation of the Integrated Financial Management System (IFMS); and the Treasury Single Account (TSA) in 2013; Nonetheless, several challenges remain, particularly in the areas of budget credibility, enforcement of laws and regulations (compliance), combatting corruption and insufficient domestic revenues to finance the budget according to national priorities.

385 **At entry government recruits relatively, good talent but managing this talent is challenge**. Public service human resource planning is disjointed. A majority of public

servants recruited do not undergo induction training required to be a civil servant. Where it is happening, it is disjointed and not informed by national common core values. Efforts have been made to strengthen the civil service college for it to continuously train and retrain public servants but more is required to achieve desired results. In service continuous training is inadequate, where it exists it not informed by a needs and impact assessment for training. NALI was set up to train civil servants a sense of nationalism and core values but training is not mandatory. Further, in addition to low renumeration it is not commensurate to performance as both good and poor performers are provided the same pay. This kills morale and leads to self-selection of poor performers in the public sector. Indeed, there is no framework to reward innovation instead those who attempt to innovate are can be penalized if they fail.

386 **In 1993 Government made strides of taking services nearer to people through implementing the decentralization policy however failure to accompany it with fiscal decentralization has made it inefficient**. Despite Decentralization policy of taking services nearer to the people, services are largely re-centralized and the share of budget executed at LGs is dismal. The number of LGs, in line with the Decentralization policy, is consistently rising, yet the share of the budget going to LGs is declining. LGs have increased from 133 (including municipalities) in FY2015/16 to 168 in FY2018/19. However, the share of LG transfers of the national budget has on average stagnated around 10 percent, during this period. This is below the NDPII target of 30 percent. This is making it very different for LGs to deliver on their mandate. This directly affects the quality of social services at service delivery points such as schools, health facilities, roads, extension services and management of natural resources among others. Further centrally, to decentralization policy, several services have been recentralized. These re-centralized services include: building primary schools' classrooms, toilets and providing furniture under Ministry of Education and building health centres under Ministry of Health.

387 **Further, budget allocations to LGs are mainly for paying workers' salaries, however, these workers are to a large extent redundant due to inadequate corresponding operational resources.** 68.4 percent of the LG Budgets are for Wages and salaries; and pensions and gratuities. The corresponding non-wage that is required to facilitate these workers to deliver services is dismal (13 percent or UGX 2.5 billion per LG) to keep them busy. Also, the development budget is dismal (18 percent or UGX 3.4 billion per LG). This leads to workers' redundancy and poor quality of service delivery at the sub-national level.

388 **Uganda has a story of contradiction in the area of fighting corruption**. On one hand, the country has a wide range of comprehensive anticorruption institutions and extensive legislation, even by international standards; and on the other, weak enforcement of the laws, with evidence that corruption in Uganda has been increasing since the mid-2000s. One of the main agencies mandated by the Constitution to fight corruption is the Inspectorate of Government (IG). Other institutions mandated by law to curb corruption include the police, judiciary, Directorate of Public Prosecutions (DPP) and Parliament.

While the number of convictions in corruption-related cases has gone up, largely as a result of the creation of the Anti-Corruption Court in 2010, the number of corruption cases closed due to lack of sufficient evidence has similarly risen, pointing to the weak investigative capacity of anti-corruption agencies. Research reports and various media outlets in Uganda are also awash with reports of corruption in the public sector.

389 **Another strategy for improving compliance in government has been in the area of strengthening the external and internal audit functions** within government. Auditing reforms have involved the enactment of Audit Act 2008, and recruitment and professionalisation of human resources, both in the Office of the Auditor General (OAG) and within the internal audit directorate in MoFPED. These improvements have led to timely audits and production of audit reports for Parliament's scrutiny and discussion. Uganda was the winner of the African Organisation of Supreme Audit Institutions (AFROSAI) prize of 2011 and 2013, and the country's OAG is rated among the best supreme audit institutions in Africa. Outcomes from auditing initiatives are poor, however, as the OAG is a reporting office to Parliament, with limited powers to enforce its recommendations. Findings indicate that reports submitted by OAG to parliament take a long time to be debated and not many of the recommendations are implemented by the executive.

20.3 Objectives

390 In order to address the above constraints, the objectives of this programme are to:

1) Strengthen accountability for results across government;
2) Streamline government structures and institutions for efficient and effective service delivery;
3) Strengthen human resource management function of Government for improved service delivery;
4) Deepen decentralization and citizen participation in local development; and
5) Increase transparency and eliminate corruption in the delivery of services.

20.3.1 Interventions

391 In order to achieve the above objectives, NDPIII will prioritize the following interventions:

Table 20.1. Public Sector Transformation Interventions and Respective Actors

Intervention	Actors
Objective 1: Strengthen accountability for results across government	
1. Review and strengthen the client chatter feedback mechanism to enhance the public demand for accountability	OP, OPM, MoPS
2. Develop and enforce service and service delivery standards	MoPS, OPM, NPA

Intervention	Actors
3. Strengthening public sector performance management a. Administer and enforce performance contracts for political leadership b. Administer and enforce performance contracts across public service	MoPS, OP, OPM, MoFPED, NPA,
4. Adopt appointment on contractual basis rather than permanent and pensionable.	MoPS. OP
5. Enforce compliance to the rules and regulations	OP, OPM, MoLG
Objective 2: Streamline Government architecture for efficient and effective service delivery	
1. Restructure government institutions (MDAs & sectors) to align with new program planning, budgeting and implementation a. Undertake periodic (5 yearly) functional analysis and reforms of government institutions	OP; MoPS; OPM; MoFPED; NPA;
2. Implement the recommendations on harmonization and restructuring of institutions	OP, MoPS, OPM, NPA,
3. Review and develop management and operational structures, systems and standards	MoPS, OPM, MoLG
4. Rationalize and harmonize policies to support public service delivery	OPM, MoPS, MoLG, MoFPED, NPA
Objective 3: Strengthen human resource management function of Government for improved service delivery	
1. Undertake nurturing of civil servants through patriotic and long-term national service training	MoPS, OP; OPM; UPDF; NPA
2. Design and implement a rewards and sanctions system a. Introduce exit policy for non-performers.	MoPS, OP; OPM; IGG; MoFPED
3. Empower MDAs to customize talent management (Attract, retain and motivate public servants)	MoPS, OPM, MoFPED, MoLG
4. Upgrade Public sector training to improve relevance and impact. a. Strengthen training partnerships with Universities	MoPS, MoE, Universities
Objective 4: Deepen decentralization and citizen participation in local development	
1. Strengthen collaboration of all stakeholders to promote local economic development; b. Provide a conducive environment to facilitate Private Sector participation in investment in the local economy	OP, MoLG, MoFPED
2. Increase participation of Non-State Actors in Planning and Budgeting	MoFPED, NPA, MoLG
3. Operationalize the parish model	
4. Build LG fiscal decentralization and self-reliance capacity	MoPPED, MoLG, LGFC, URA
Objective 5: Increase transparency and eliminate corruption in the delivery of services	
1. Automate institutional management functions	MoICT&NG; NITA-U; MoPS

Intervention		Actors
	a. E-governance across public sector	
2.	Strengthen the prevention, detection and elimination of corruption. a. Enact and implement a law of recovery of corruption proceeds, management and disposal of recovered assets	OP, IGG, AG, MoJ
3.	Mainstream Anti-corruption initiatives (Transparency, Accountability and Anti-Corruption – TAAC) in all MDAs plans, projects /Programmes)	OP, IGG, AG, MoFPED,
4.	Design and implement electronic citizen (e-citizen) system	MoICT, NIRA, NITA, OP, OPM, Security Agencies
5.	Develop a common public data/information sharing platform.	

20.3.2Implementation Reforms

392 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Develop and enforce service delivery standard across the public sector
2) Implement recommendations from rationalization of Government Ministries and Agencies report and undertake a comprehensive functional analysis of the public service
3) A comprehensive review of the fiscal decentralization policy.

CHAPTER 21: REGIONAL DEVELOPMENT

21.1 Introduction

393 **Efforts in poverty eradication are being derailed due to some regions dragging poverty gains**. Poverty eradication targets have been missed despite government efforts. In fact, between FY2012/13 and FY2016/17, the percentage of people living below the poverty line (USD 1.00 per day) increased from 19.7 percent to 21.4 percent after more than 15years of sustained reduction in the percentage of people living below the poverty line. The poverty reversal was due to poverty increases in; Bukedi, Busoga, Teso and Bunyoro regions. In addition, even though poverty reductions were registered in Lango, Acholi and Karamoja, the percentage of people living below the poverty line in these regions remain significantly above the national average.

394 **The aspiration of Agenda 2030 (SDG 10) entreats countries to reduce inequality within and among countries, and also strive to end poverty in all its forms everywhere** (SDG 1). Countries are required to reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions by 2030. The EAC Vision 2050 (Chapter 2 section 2.4) is to have a developed, stable and competitive regional bloc that will ensure "enhanced inclusiveness in development and socio-economic transformation", and has set a target to reduce the percentage of people living below the poverty line to less than 10 percent by 2030. The Uganda Vision 2040 emphasizes balanced development through ensuring that all regions of the country benefit from growth of the national economy.

395 There is imbalance in the development of regional potential. This is due to i) regional income poverty; (ii) limited and underdeveloped regional value chains; (iii) inadequate economic and social infrastructure; (iv) poor local leadership and weak public sector management in the regions.

396 **Therefore, the goal is to accelerate equitable, regional economic growth and development.**

397 The key results to be achieved over the next five years are to reduce poverty in the lagging regions of Uganda as follows:

(i) Karamoja - from 60.8% to 42.1%;

(ii) Bukedi - from 43.7% to 25.8%;

(iii) Bugisu - from 40.9% to 23.5%;

(iv) Busoga - from 37.4% to 19.1%;

(v) West Nile - from 34.9% to 26.0%;

(vi) Acholi - from 33.4% to 18.3%;

(vii) Teso - from 25.1% to 19.7%; and

(viii) Bunyoro - from 17.4% to 6.3%.

21.2 Situation Analysis

398 **The NDP II targeted poverty to reduce from 19.7% in FY 2012/13 to 14% in FY2019/20, however, poverty reversed to 21.4%.** In absolute terms, this implies that the number of poor people increased from 6.6 million in 2012/13 to 8.03 million in 2016/17. Majority of the poor people live in rural areas but are disproportionately concentrated in the sub-regions of Bukedi, Busoga, Bugisu, Teso, Acholi, West Nile, Karamoja and Bunyoro regions compared to other parts of the country (Map 20.1)

399 **Poverty reversals have been highest in Busoga, Bukedi, Bugisu and Teso** (Table 19.1)). These four sub-regions combined constitute 24% of the total population of Uganda. In addition, the poverty levels in West Nile, Acholi and Karamoja remain significantly above the national average.

Table 21.1: Changes in poverty in targeted regions between 2012/13 and 2016/17

Sub region	Poverty rate 2016/17	Poverty rate 2012/13	% Change
1. Bukedi	43.7	29.4	14.3
2. Busoga	37.5	22.8	14.7
3. Bugisu	34.9	25.8	9.1
4. West Nile	34.9	42.0	-7.1
5. Karamoja	60.1	74.5	-14.3
6. Acholi	33.4	45.5	-12.1
7. Teso	25.1	20.8	4.3
8. Bunyoro	17.3	8.5	8.8
9. Tooro	11.1	11.1	0.0

400 **Based on poverty levels and trends over the last five years, therefore, this program has chosen eight geographical sub-regions as the areas of focus for accelerated poverty reduction efforts categorized into three groups**. The first group (consisting of Bukedi, Busoga, Bugisu and Teso) is comprised of those sub-regions where poverty reversals were highest and poverty headcount is significantly above the national average. The second group (consisting of West Nile, Acholi and Karamoja) is comprised of those where poverty levels still remain significantly above the national average, even though poverty levels are reducing. The last group comprises of Bunyoro where the percentage of people below the poverty line doubled over this period.

401 **Overall, poverty is driven by heavy reliance on subsistence rain-fed agriculture using rudimentary technology as the only economic activity** (UNHS, 2016). Significant number of people in these sub regions depend on subsistence agriculture as their main source of livelihood for example: Bukedi (73.53%), Busoga (71.11%), and Teso (81.66 %). In addition, poverty in Bukedi region is also attributed to low farm output due to pests and diseases. In Busoga and Bunyoro regions, the locking of small farm land sizes for sugar cane growing is highly likely contributing to the increase in poverty. In Karamoja, the high poverty levels are attributed to the harsh weather conditions as well as poor agricultural and cultural practices. Other contributing factors

include large household sizes and low education attainment, particularly for household heads; poor transport connectivity; and low access to grid electricity.

402 **Finally, unexploited natural resources (minerals and tourism sites) in these subregions helps to explain the persistent poverty levels**. For example, there is an estimated 300 million tonnes of marble in Karamoja; an estimated 1 billion tonnes of inferred and Nickel in Kitgum; an unquantified volume of Gold in Busia, Namayingo, Karamoja, Kitgum and Moyo and other minerals.

403 Over the next five years, Uganda needs to focus on accelerating poverty in those regions lagging behind the national poverty line by addressing: i) heavy reliance on subsistence rain-fed agriculture using rudimentary technology as the only economic activity; ii) unexploited natural resources in these subregions; iii) poor transport network; iv) low access to grid electricity.

21.3 Objectives

404 In order to address the above constraints, the objectives of this program are to:

1) Stimulate the growth potential of the sub-regions in the key growth opportunities (Agri-business, Tourism, Minerals and Manufacturing);
2) Close regional infrastructure gaps for exploitation of local economic potential;
3) Strengthen and develop regional based value chains for LED;
4) Strengthen the performance measurement and management frameworks for local leadership and public sector management.

405 Under area-based agribusiness development, the program has prioritized the following agro-enterprises from among those already prioritized under the Agro-Industrialization programme, based on agroecological zones (table 20.2). The mineral and tourism related enterprises will be exploited based on the location of such activities.

Table 21.2: Selected enterprises by sub region

Above the national average and worsening	Above the national average but improving	Below the national average but reversing
Busoga (3 enterprises) • Sugarcane • Maize • Fish	**Karamoja (3 enterprises)** • Livestock (cattle, goats), • Cereals (Sorghum) • Vegetable oil (sunflower)	**Bunyoro (3 enterprises)** • Maize • Sugarcane, • Livestock (Dairy/beef)
Bugisu (2 enterprises) • Coffee • Maize	**Acholi (4 enterprises)** • Fish • Vegetable oil (sunflower, sesame, cotton, soya)	
Bukedi (3 enterprises) • Cassava, Cotton • Fish	**West Nile (4 enterprises)** • Livestock/Beef • Poultry, Coffee, Tea	
Teso (4 enterprises) • Citrus, Fish, Livestock • Vegetable oil (Nuts, Soya, Sunflower		

21.3.1Program Interventions

406 In order to achieve the above objectives, NDP III will prioritise the following interventions under this program.

Table 21.3. Regional Development Interventions and Respective Actors

Interventions	Actors
Objective 1: Stimulate the growth potential of the sub-regions through area-based agribusiness LED initiatives	
1. Organize farmers into cooperatives at district level	LGs
2. Increase regulation of farm input markets to reduce adulteration	MAAIF
3. Construct irrigation schemes and valley dams to ensure production all year round	MWE, MAAIF
4. Strengthen agricultural extension services through increased supervision and implementation of the parish model	LGs
5. Strengthen research into the prioritized agro-enterprises for increase productivity	NARO
6. Establish an agricultural financing facility for farmers in target regions	MAAIF, MFPED
7. Operationalize the Industrial and Business Parks situated in the target regions	UIA
8. Establish post-harvest handling, storage and processing infrastructure including silos, dryers, warehouses, cold rooms and a warehouse receipt system for farmers in those regions	MTIC, MAAIF
9. Establish demonstration farms for regionally identified commodities	MAAIF
10. Establish a marketing system for the selected agro-enterprises (market information centers, standards, Packaging)	MTIC, MAAIF
11. Develop targeted agri-LED interventions for refugees and host communities	LGs, OPM, DPs
Objective 2: Close regional infrastructure gaps for exploitation of local economic potential;	
1. Develop community access and motorable feeder roads for market access	LGs
2. Increase transport interconnectivity in these programme regions to promote intra-regional trade and reduce poverty	MoWT, MOLG, UNRA, LGs
3. Increase energy connectivity in these programme regions	MEMD, MOLG, REA, LGs
4. Increase ICT interconnectivity in these programme regions	MO ICT&NG, NITA
Objective 3: Strengthen and develop regional based value chains for LED;	
1. Develop region-specific tourism products in poverty-stricken regions	MTWA, UTB
2. Facilitate formation of tourism groups in target communities (e.g. arts and crafts);	MTWA, UTB
3. Establish regional tourism information centers;	MTWA, UTB
4. Skill locals in hospitality (tour guide, hoteliers);	
5. Nurture local private sector to participate in local, regional and global tourism value chains through training and credit extension	MTWA, UTB
6. Expand, upgrade and maintain tourism support infrastructure	MTWA, UTB

Interventions	Actors
7. Organize the artisanal and small-scale miners into groups/cooperatives;	MEMD
8. Provide incentives for acquisition of appropriate technology;	MEMD
9. Provide training and extension services to ease the adoption of the acquired technology;	MEMD
10. Incentivize private sector to offer industrial training and apprenticeship opportunities;	MFPED, MTIC
11. Construct roads to support mining and mineral processing in the regions;	MTW, UNRA
12. Extend adequate and reliable energy to support mining and mineral processing industries;	MEMD
13. Provide water to support mining and mineral processing;	MWE
14. Promote value addition through LED in the mining activities;	MEMD
15. Restore degraded excavation sites;	MWE, NEMA
16. Undertake massive sensitization and awareness campaigns on environment.	MWE
Objective 4: Strengthen the performance measurement and management frameworks for local leadership and public sector management.	
1. Introduce community score cards of local government performance	MOLG
2. Institute regional ordinances and charters for regional government commitments to visions, roles and responsibilities.	MOLG

21.3.2 Implementation reforms

407 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) Develop and implement regional development programmes in Busoga, Teso, Bukedi, and Karamoja, similar to the approach taken in Rwenzori, West Nile and Bunyoro;

2) Transfer the management of the program to the Ministry of Gender, Labour and Social Affairs (or to a new institution that Cabinet will decide) for more effective and efficient implementation.

3) Establish a special fund to finance implementation of interventions under this program.

4) Charge the parish chief with the responsibility of overseeing wealth creation in their jurisdictions. Each parish chief should focus on production, basic value addition, and bulking for onward transportation to the value addition facilities at the regional industrial parks.

CHAPTER 22: DEVELOPMENT PLAN IMPLEMENTATION

22.1 Introduction

408 **Evidence-based development planning, implementation/operational planning, resource mobilisation, budgeting and budget execution as well as effective monitoring evaluation and reporting are crucial tenets of effective policy implementation**. In addition, strengthening statistical production and utilization as well as coordination and supervision, across all levels of plan implementation in a coherent manner, is critical to ensuring successful implementation of the Plan.

409 **The aspiration of Agenda 2030 (SDG 17) and Agenda 2063 (Goal 12 and Goal 20) is to strengthen the means of implementation through continuous capacity**-building, multi-stakeholder partnerships, ensuring policy and institutional coherence as well as data, monitoring and accountability. The EAC Vision 2050 states that successful implementation of will depend on effective execution of functions and responsibilities of the different organs and institutions by strengthening institutions; improved accountability; and enhanced legal oversight.

410 **However, slow implementation of the national development plans remains a major development challenge for Uganda**. This is caused by specific challenges including: (i) Weak implementation planning and budgeting; (ii) Weak M&E systems for supporting implementation and policy planning; (iii) Limited financing and fiscal management; (iv) Weak coordination of implementation; and (v) Weak systems for statistical development.

411 **The goal of this programme, therefore, is to increase efficiency and effectiveness in the implementation of NDPIII.**

412 The key targets to be achieved over the plan period are to:

(i) Achieve at-least 80% of the NDPIII targets;

(ii) Increase the GDP Growth rate from 6.3% to at-least 7% per annum;

(iii) Increase the Revenue to GDP ratio from 15.6% to 18% by 2025;

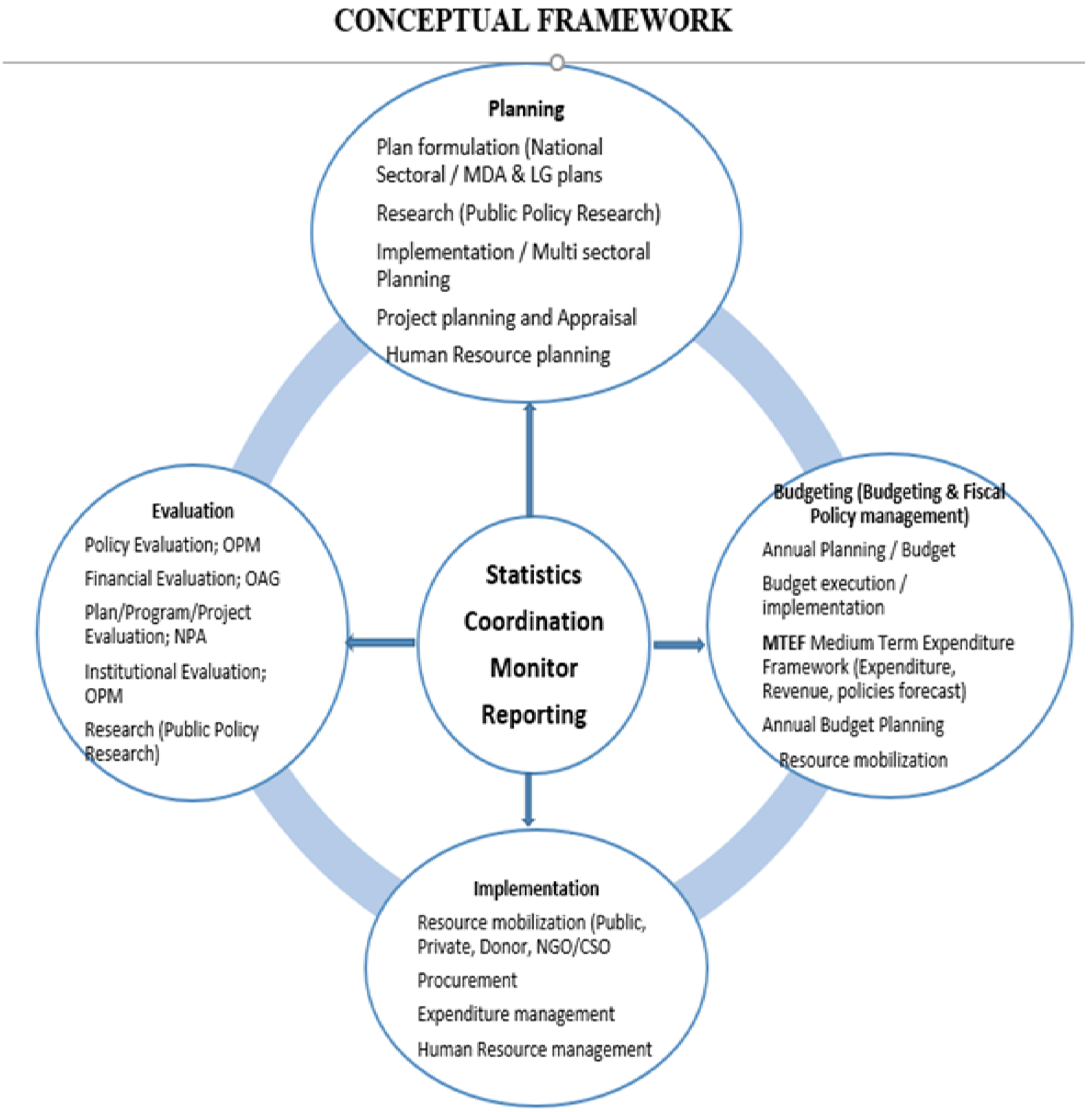
(iv) Increase the alignment between the Annual Budgets and the NDPIII from 60% to 75% at national and program level;

(v) Maintain the proportion of supplementary budget expenditure (net of loan servicing) within 3%.

22.2 Situation analysis

413 **Successful development plan implementation is a function of addressing all facets of the implementation cycle**. This cycle revolves around strategic planning, cost estimation, annual prioritization, budgeting, implementation, auditing and accounting, monitoring and evaluation. This is reinforced by effective coordination and an efficient

statistical generation mechanism for results (see Figure 22.1). Development plan implementation is strong to the extent to which the cycle components are strong, otherwise implementation will be weak.



414 **Significant progress has been made in strategic planning, nevertheless, planning capacity is generally low particularly in implementation planning and at decentralized levels**. In 2007, the Government adopted the Comprehensive National Development Planning Framework (CNDPF) that defines the planning process in Uganda, comprising: the 30-year National Vision; Three (3) 10-year plans; six (6) 5-year NDPs; Sector Development Plans (SDPs); Local Government Development Plans (LGDPs); Annual Work Plans (AWPs) and budgets. This, together with the detailed bottom-up and top-down development planning processes, constitute. There is significant improvement in development of plan governing across since then. As of 2018/19, 89% (16/18) Sectors, 82% (104/127) MDAs and 94% (153/162) LGs had plans aligned to the NDPII. Despite the good progress in development of plans, due to existing weakness in planning in general particularly at sector level, plans are not translated into budget interventions. Also, Human Resource (manpower) Planning unsatisfactory as

there is a large miss match between skills available and the labour market requirements. Further, the extent to which planning is informed by evidence requires strengthening. The country does not have a clear research agenda to guide planning, implementation and policy making. As a result, research efforts by various public, private and non-governmental institutions has not been harnessed.

415 **Public Investment Management (PIM) particularly from planning to evaluation requires strengthening**. Strides have been taken to develop PIM with setting up a project unit in NPA and an appraisal unit in MoFPED. Also, the first phase of Integrated Bank of Projects (IBP) covering pre-investment (project preparation and appraisal) has been developed and over 400 personnel from various MDAs have trained in the integrated investment appraisal. However, a 2018 PEFA assessment found that only 10% of projects are subject to independent economic analysis, guidelines for project selection are not consistently used (most projects are selected on the basis of financing rather than adequacy of design), recurrent costs are not adequately considered, procurement is slow and there are no standard rules and procedures to monitor all projects.

416 **Budgeting for results has significantly improved with the introduction of Performance based budgeting nevertheless, budget alignment to plans requires strengthening**. During the NDPII implementation, Budgeting transited from Output Based Budgeting (OBT) to results/performance based (Programme Based) budgeting. The NDPII results at outcomes, outputs and the corresponding indicators therefore informed the development of the Programme Based Budgeting System. To-date, the planning process has been reformed and taken the programme approach to delivery of common results. However, compliance levels of the Annual budget to NDP require strengthening. Compliance level over the last four years has averaged only 60.3 percent with many priority growth sectors underfunded. Also, budget credibility is a concern, there is much volatility between budgeted and actual allocation. Persistent supplementary budget pressures compromise budget credibility. Further, budget allocations are heavily skewed towards MDAs as opposed to LGs where most of the implementation action is supposed. Transfers to local governments remain inadequate to support the effective delivery of decentralized functions and LED interventions.

417 Implementation of off-budget initiatives diverts effort of implementing institutions away from focusing on priority interventions and therefore affecting the credibility of the budget. There is need for a mechanism that comprehensively captures off-budget financing. This will also curtail development of projects that are not in NDPIII unless these are really emergency projects.

418 **Slow progress has been made in mobilizing domestic resources to finance results.** Reforms in tax policy and administration have contributed to an increased domestic revenue collection over time. A Domestic Revenue Mobilization Strategy, which will inform reforms in tax system has been developed. As a result, though, not yet sufficient, revenue collection has increased. On average, at least 75% of the national budget is domestically financed. However, GDP ratio remains low at 12.9% in FY2019/20. This

limits the available resource envelope for implementation of key national priorities. Poor revenue collection in local governments is particularly a concern.

419 **Progress has been made in Monitoring and evaluation.** The Evaluation function in Government has been operationalized and evaluation capacity built for state and non-state actors. In 2017 Universal Primary Education (UPE) policy in Uganda was evaluated. Also, Uganda Evaluation Association organized a successful 7th Uganda Evaluation Week in 2019. In addition, Sectors and MDAs continued to produce mandatory periodic reports such as the Annual National Development Report (NDR); the Certificate of Compliance reports; Governments' Annual and Half-Annual Performance Reports (GAPR/GHAPR); the Annual and Semi-Annual Budget Performance reports; and Annual Sector Performance Reports that are informed by the respective annual reviews. However, a number of policies implemented have never been evaluated to determine their impact save for NDP mid-term reviews. e.g. USE, Affirmative Action on girl child education, political representation at various levels of government, public and private education at universities, privatization among others. Government needs to establish a framework for evaluation of all its projects with a view ascertaining the impacts of such interventions and evaluations are not timely. Further a periodic institutional evaluation to enhance Government effectiveness is not done.

420 **Coordination, Monitoring and Reporting of NDP implementation across government requires strengthening**. Sectors and MDAs work in silos often competing in the implementation space. The coordination framework in OPM, OP, MoFPED and NPA is not clear. OPM who is mandated to coordinate government implementation for results is also an implementor, which creates a conflict of interest and credibility challenge. The MTR found no evidence to show deliberate strengthening of coordination of implementation for purposes of enhancing NDP implementation. Weaknesses in systems for coordination of implementation including lack of NDP implementation oversight, weak use of information from monitoring and evaluation processes, duplication of efforts, waste of resources due to lack of synergies and timely sharing of information, poor data quality, and lack of central joint reviews are evident. The NDPII put in place various mechanisms such as National development forums, Annual performance review, sector and MDA but these have never been operationalized.

421 **Statistical Data Production and Policy Research: successes registered include**: Uganda Bureau of Statistics (UBoS) issued a number of reports covering Population and Social Statistics; Macroeconomic Statistics; Business and Industry Statistics; Agriculture and Environmental Statistics; Statistical Coordination and Administrative Support Services; District Statistics and Capacity Building. The other surveys undertaken include the Malaria Indicator Survey; listing of Education Institutions; Uganda National Panel Survey; Informal Cross Border Trade (ICBT) Survey; and Time to Cross Traders Perception Survey in the border posts of Mpondwe, Bunagana and Goli under the Great Lakes Region Facilitation Project. There has been a general improvement in the quality and quantity of statistics with the conduct of new surveys like the National Manpower

Survey and the production of new outputs such as GIS enabled visualizations and geo-referenced statistical maps. In addition to the regular data production activities for social and economic statistics, new areas of statistical production were governance, peace & security, gender, science and technology, environment, oil and gas, satellite accounts, nutrition platform, and quarterly GDP were initiated.

422 **Despite the achievements articulated above, the National Statistics System (NSS) continues to face a number of institutional**, structural and capacity gaps that have inhibited the production of high-quality statistics. These gaps require addressing

22.3Objectives

423 The overall objective of this programme is to ensure efficiency and effectiveness in the implementation of Plans. Specifically, the programme aims to:

1) Strengthen capacity for development planning;
2) Strengthen budgeting and resource mobilization;
3) Strengthen capacity for implementation to ensure a focus on results;
4) Strengthen coordination, monitoring and reporting frameworks and systems;
5) Strengthen the capacity of the national statistics system to generate data for national development; and
6) Strengthen the research and evaluation function to better inform planning and plan implementation.

22.3.1 Interventions

424 Prioritized interventions over the five-year period to achieve the above objectives include

Interventions	Actors
Objective 1: Strengthen capacity for development planning	
1. Strengthen capacity for development planning, particularly at the MDAs and local governments; a) Integrate migration and refugee planning and all other cross cutting issues in national, sectoral and local government plans	MOFPED, NPA
2. Strengthen the capacity for public policy research to inform planning, implementation as well as monitoring and evaluation;	OPM, MOFPED, MoSTI, NPA
3. Strengthen capacity for implementation/multi-sectoral planning (identify, design, appraise and execute projects and programmes that cut across MDAs and take advantage of synergies across sectors) along the implementation chain;	MOFPED, NPA
4. Review and reform the local government system to clearly articulate the Parish/Sub-county Planning model to bring delivery of services closer to the people;	MOLG, MOPS
5. Strengthen human resource planning to inform skills projections and delivery of national human resource capacity to support expansion of the economy;	MOGLSD, NPA, UBOS
6. Strengthen Public Investment Management across the entire government to reduce the time lag between conception of project ideas and their implementation.	MOFPED, NPA, Universities
7. Strengthen the capacity of the Development Committee and MDA project units to support the PIMs process	MOFPED
8. Revise the Development Committee guidelines in view of the emerging developments in PIMs	MOFPED
Objective 2: Strengthen budgeting and resource mobilization	

Interventions	Actors
1. Fast track the implementation of the integrated identification solution linking taxation and service delivery (e-citizen).	MOFPED, URA, NIRA
2. Amend and develop relevant legal frameworks to facilitate resource mobilisation and budget execution.	MOFPED
3. Expand financing beyond the traditional sources	MOFPED
4. Deepening the reduction of informality and streamlining taxation at national and local government levels	MOFPED, URA
5. Implement electronic tax systems to improve compliance both at National and LG levels.	URA, MOLG, LG
6. Increase synergy in the use of fiscal and monetary instruments to achieve better development outcomes	MOLG, LGFC
7. Establish an appropriate, evidence-based tax expenditure "governance framework" to limit leakages and improve transparency	MOFPED, URA
8. Build capacity in government agencies to negotiate better terms of borrowing and PPPs	MOFPED
9. Align government borrowing with NDP priorities	Parliament, MOFPED, NPA
10. Impose sanctions for accumulation of domestic arrears	MOFPED
11. Harmonize the PFMA, PPDA, LGA, and regulations to improve the Public Financial Management systems (PFMs).	MOFPED, OAG
12. Develop a Comprehensive Asset Management Policy	MOFPED, MOPS, MOWT, MOLG
13. Strengthen the alignment of the Sector, MDA and LG Plans to the NDP III	Parliament, MOFPED, NPA, Sectors, MOLG
14. Alignment of budgets to development plans at national and sub-national levels	MOFPED, NPA, Sectors, MOLG,
15. Roll out Automated Procurement systems to all MDAs and LGs (e-GP).	MoFPED, PPDA,
16. Establish a system for rewards and sanctions by Parliament to MDAs to ensure compliance of budgets to NDP priorities	OP, OPM, Parliament, MoPS,
17. Integrate GoU Public Financial Management (PFM) Systems for integrated PFM systems.	MoFPED, AGO,
18. Operationalise the system for tracking off-budget financing.	MoFPED,
19. Fastrack the review and amendment of the relevant procurement laws, policies and regulations to simplify the procurement process	MoFPED, PPDA
Objective 3: Strengthen capacity for implementation to ensure a focus on results	
1. Review and re-orient the institutional architecture for Community Development (from the parish to the national level) to focus on mindset change and poverty eradication;	MoPS, MoLG, MoGLSD,
2. Reform the local government system to empower the parish chief and the sub-county chief to oversee and supervise all technical work (in agro-industrialization and human capital development) in their jurisdictions;	OP, OPM, MoLG,
3. Harmonize the PFMA, PPDA and LGA and regulations to improve budget Execution	MoFPED, MoLG
4. Increase financing for local government investment plans;	MoFPED, LGFC, NPA
5. Review and reform the Government Annual Performance Review (GAPR) to focus on achievement of key national development results.	OPM, NPA
Objective 4: Strengthen coordination, monitoring and reporting frameworks and systems	
1. Operationalise the APEX Platform	OP, OPM, MoFPED, NPA
2. Expand the Terms of Reference for the Budget and National Economic Committees to include consideration of the NDP;	MoFPED
3. Develop an effective communication strategy for NDPIII;	NPA, OPM
4. Develop integrated M&E framework and system for the NDP;	OPM, NPA, UBOS
5. Develop and roll out of the National Public Risk Management system in line with international best practices;	NPA
6. Enhance staff capacity to conduct high quality and impact-driven performance audits across government;	OAG
7. Strengthen expenditure tracking, inspection and accountability on green growth	MoFPED, NPA
Objective 5: Strengthen the capacity of the statistical system to generate data for national development	
1. Align and synchronize national survey and census programmes to NDPIII, Africa Agenda 2063, SDGs and other development framework data requirements;	NPA, UBOS

Interventions	Actors
2. Acquire and/or develop necessary statistical infrastructure in the NSS including physical, Information and Communication Technology and Human Resources;	UBOS
3. Harness new data sources including big data, data science, block chain technologies and geospatial technologies in statistical production;	UBOS
4. Amend the UBOS Act, 1998 to be inclusive of the NSS to better coordinate the NSS and define the roles of other players within the NSS Framework;	UBOS
5. Review and update the National Standard Indicator Framework in line with the NDP III, Agenda 2063 and SDGs;	UBOS
6. Strengthen exchange programmes on statistics with other National Statistical Institutions/Organisations at regional and international levels;	UBOS
7. Standardize and operationalize use of standard statistical infrastructure including the rules, regulations and instruments for conducting Censuses and Surveys among data producers;	UBOS
8. Mainstream documentation of methodologies (Metadata) for NSS indicators;	UBOS
9. Build the capacity the civil society and Private Sector organisations in the production and use of statistics;	UBOS
10. Undertake research to improve methodologies for key statistics and indicators;	UBOS
11. Support Statistical professional development and application through collaboration with the academia and relevant international organisations;	UBOS
12. Enhance the compilation, management and use of Administrative data among the MDAs and LGs; a. Strengthen compilation of statistics for cross-cutting issues. (eg migration, gender, refugees and others)	UBOS
Objective 6: Strengthen the Research and Evaluation function to better inform planning and plan implementation	
1. Develop an integrated system for tracking implementation of internal and external audit recommendations;	MOFPED, OAG
2. Strengthen the follow up mechanism to streamline the roles of the relevant oversight committees to avoid duplication of roles;	OP, OPM, Parliament, NPA
3. Promote the use of big data analysis techniques in Audit and Investigations;	MICT, NITA, MOFPED, OAG
4. Amend the relevant laws and regulations to strengthen institutional evaluation, policy evaluation, plan/program and project evaluation;	Parliament, OP, OPM, MOFPED, NPA
5. Build research and evaluation capacity.	OP, OPM, MOFPED, NPA

22.3.2 Implementation Reforms

425 The key implementation reforms required to fully implement this programme and realise expected goals in the next five years:

1) APEX platform should be operationalized to be accountable for delivery of results.
2) Office of the Prime Minister should lead the overall coordination and reporting on implementation of NDPIII programs and implied results
3) Develop capacity of planning units along the entire value chain across government
4) Develop a mechanism to capture off-budget financing.

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PART IV: COSTING AND FINANCING, RISK MANAGEMENT, AND MONITORING AND EVALUATION

CHAPTER 23: COSTING AND FINANCING OF NDPIII PROGRAMS

23.1 The Overall Cost of the Plan

426 The overall cost of financing the NDPIII over the 5-year period is UGX 342,607 billion of which UGX 213,913 billion is Public while UGX 128,694 billion is private sector contribution. This means that 62.4 percent of the total resources expected to finance the Plan will be from GoU consolidated budget while 38.6 percent will be from the private sector. The costing follows both the Programme and the current sector approach (Annex Tables 1 and 2 respectively).

23.2 Public Financing Sources

427 The amount of public resources required to finance the Plan is UGX 213,913 billion. It gradually increases from UGX 36,222 billion in FY2020/21 and peaks to UGX 45,426 billion in FY 2023/24 before falling to UGX 45,326 billion in the final year of implementation of the Plan (see Table 23.1).

Table 23.1: Public Sector Costing FY2020/21-2024/25

Programme	Public Costing 2020/21 - 2024/25					
	Total	2020/21	2021/22	2022/23	2023/24	2024/25
Agro-industrialisation	6,940	1,145	1,359	1,405	1,443	1,588
Mineral Development	3,164	616	595	616	638	699
Sustainable Development of Petroleum Resources	4,183	870	769	798	833	914
Tourism Development	3,043	483	560	600	638	762
Climate Change, Natural Resources, Environment, a	7,415	1,261	1,629	1,515	1,365	1,645
Private Sector Development	3,172	490	624	652	669	737
Manufacturing	3,203	468	603	653	706	773
Integrated Transport Infrastructure and Services	26,816	3,928	5,318	5,508	5,746	6,316
Energy Development	5,789	1,255	1,059	1,096	1,134	1,245
Digital Transformation	2,131	298	526	565	363	380
Sustainable Urbanisation and Housing	4,281	546	1,122	1,079	711	824
Human Capital Development	25,404	3,854	4,703	4,999	5,787	6,062
Innovation, Technology Development and Transfer	3,237	377	648	681	739	791
Community Mobilisation and Mindset Change	3,820	542	714	749	821	994
Governance and Security	32,779	4,646	6,523	6,765	7,072	7,773
Public Sector Transformation	10,442	2,036	1,953	2,029	2,111	2,313
Regional Development	14,421	2,581	2,639	2,842	3,082	3,276
Development Plan Implementation	5,081	970	981	1,029	1,029	1,073
Interest Payments Due	48,590	9,856	10,460	10,574	10,538	7,162
Total Budget	**213,913**	**36,222**	**42,783**	**44,156**	**45,426**	**45,326**

428 The main source of the public resources for financing the Plan will be tax revenue. Currently, tax revenue to GDP stands at 12.9 percent and it is projected to increase annually by 0.5 percentage points over the Plan period. This requires Government to prioritise the implementation of strategies that increase resources available to finance public investment as laid out in the Domestic Revenue Mobilisation Strategy (DRMS). Domestic revenue mobilisation is the only sustainable way to increase additional space

for sustainable budget expenditures, foster national ownership and reduces dependency on external assistance.

23.2.1 Domestic Revenue Mobilisation

429 To strike a balance between growing the economy and raising more resources while also catering for the welfare of the poor, the following policy priorities and actions will be implemented:

(i) Address non-compliance

(a) Target large business non-compliance with stronger enforcement actions. URA will be empowered to carry out stronger enforcement actions, including the use of enhanced, risk-based techniques to target audit activities where the likelihood of under-declaration of income or failure to comply is perceived to be highest, for example with PAYE and Corporate Income Tax (CIT).

(b) Link tax compliance with re-licensing of traders and service providers, expanding the withholding tax regime to capture evaders at the point of engagement with Government can improve compliance and bring in more revenue. Additionally, significant levels of under-declaration by professionals merit stronger investigative and enforcement action by URA.

(c) Support compliance and enhance revenues through sharper focus on registration, improved taxpayer services and education. This can be achieved by making it easier for Ugandans who are currently outside the tax system to become registered and active taxpayers; and more difficult for those who can afford to pay but are unwilling yet enjoying social services paid for by others.

(d) Refine data access and internal data management through better ICT infrastructure for URA

(ii) Address Tax Policy and design Deficiencies

(a) Strengthening Productivity of VAT: While VAT is one of the most important revenue sources, its productivity is comparatively low. This requires: (i) reviewing current VAT threshold and rate to ensure that together these minimize administrative and compliance costs, encourages small business growth and safeguards revenues; (ii) removing unnecessary VAT exemptions to curb unjustifiable revenue leakages while maintaining those that support Ugandan welfare and economic objectives; limiting the range of zero-rated supplies as far as possible; reviewing the policy on deeming to allow the VAT system to function normally; and ensuring that Government unequivocally honors its commitment to pay contractors on time since non-payment undermines the short-term VAT yield and has a negative impact on tax morale.

(b) Renegotiate the various generous Corporate Income Tax (CIT) related treaty provisions especially the Double Tax Agreements (DTAs) to bring them in line with the Ugandan DTA policy.

(c) Review Personal Income Tax (PIT) exemptions for public officials and expatriates as well as the PIT thresholds and bands to ensure that the tax system does not unfairly reduce disposable incomes.

(d) In the spirit of growing the tax base through growing the small and medium enterprises, Government will review the current presumptive tax regime to encourage the growth and formalisation of SMEs.

(e) While the Plan assumes minimum revenue streams from the oil and gas industry, Government will review the fiscal regime to fully capture revenue streams and the full value chain of the extractive and mining sector. Several features of a strong regime include: a royalty, to ensure government revenue from the time production commences; a CIT so that returns to equity are taxed in a similar way as other companies; and an additional tax to ensure the government obtains an increased share in economic rents of more profitable projects.

23.2.2 Other Public Financing Strategies

a) Development Assistance Grants

430 Grants will continue to support the financing of the Plan. In the period 2012/13-2017/18, the country received UGX 4.5trillion in grants alone both for budget and project support. Relations with the development partners will be strengthened taking into account mutual respect of national, regional and global interests in order to exploit further this existing financing opportunity. Existing opportunities to tap into development assistance resources include the strategies for implementing SDGs, Africa Agenda 2063 and the integration of cross cutting issues like Climate change, HIV/AIDS, Family Planning, Refugees among others. For example, Climate Change and environment related financing often addresses key infrastructure sectors, such as water, energy, and forestry resources development. This plan provides for developing capacity for the country to take advantage of these financing opportunities. During this period, the Government will setup a Joint Development Assistance Committee to work with the local development partners group with the objective to optimize development assistance flows into the implementation of the mainstreamed global development agenda.

b) Oil and Oil Related Revenues

431 Since the oil and gas industry is under-going development, the country cannot reliably project to have substantial resources from the industry to support implementation of the Plan. Based on the current Oil & Gas Policy, oil related revenues will be included in the budget for investments after approval by Parliament. Building confidence of the investors in the oil sector and ensuring increased transparency and accountability in the management of sector resources will be prioritized to facilitate increased investment that creates a basis for the fast-tracked onset of oil revenues.

c) Public Private Partnerships

432 A number of projects have been financed under PPP arrangements although at small scale and capacity for negotiation and structuring of PPP agreements has been developed. Over the NDPIII, PPPs will contribute significantly to the financing of prioritized interventions, especially in the infrastructure, health and education sectors where cost

recovery is potentially high through self-financing of the projects. Increased capacity to negotiate, design and manage PPP projects continues to be a priority of this plan.

d) South-South Cooperation

433 Cooperation between Uganda and other developing and emerging economies is critical to its development. For example, between 2000 and 2014, 91% of Chinese support came in the form of loans (81%) and grants (10%) to support infrastructure development projects, some of which were core projects under NDPII. It is therefore important that South-south cooperation financing is directly relevant for the NDPIII financing envelope. Uganda will therefore consolidate its relationship with her south-south cooperation partners with a view to strengthening her ability to take advantage of existing and potential resource development opportunities.

23.3 Public Debt Acquisition

23.3.1 External and Domestic Debt

434 Over the recent years, the country has been obtaining its loan resources from multilateral (56.3 percent), bilateral (19 percent) and commercial sources (24.8 percent). Multilateral sources include regular international development assistance (IDA-regular) at 27 percent; ADF (15.2 percent), and other multi-lateral sources (14.0 percent). Paris Club bilateral sources are majorly France (4.4 percent), United Kingdom (2.8 percent), and others (5.2 percent); while the non-Paris club bilateral sources have been mainly China (6.6 percent) and Saudi Arabia (0.3 percent). Commercial sources on the other hand include China (14.7 percent), SCB (3.4 percent) and others (6.6 percent).

435 Concessional loans from multilateral creditors will continue to be an important source of financing for NDP III, averaging at 1.7% of GDP over the period as derived from the macroeconomic framework. Non-concessional and semi-concessional external borrowing will also be required given the ambition of the NDP III, and because concessional borrowing is not always available for all projects. Government will continue to ensure that for projects where concessional loans cannot be secured, semi-concessional loans are prioritised over non-concessional borrowing.

436 As already described in the macroeconomic strategy, Government will minimize its domestic borrowing to less than 1 percent of GDP over the Plan period. This is to avoid the effects of crowding out private sector financing and investment that are critical to the delivery of NDPIII.

23.4 Private Financing Sources

437 The amount of private resources required to supplement public financing of the Plan is UGX 128,694 billion (38.6%) (Table 23.2). With available investment opportunities contained in the development programmes especially in integrated transport infrastructure and services, Human Capital Development, Agro-industrialisation, manufacturing and tourism among others, it is envisaged that private sector resources

will be useful in leveraging the public resources available. Besides, substantial opportunities exist in the community mobilization program most especially for the Civil Society Organizations as well as other non-state actors.

Table 23.2 Private Sector Financing FY2020/21-2024/25

Programme	Private Sector Estimates 2020/21 - 2024/25					
	Total	2020/21	2021/22	2022/23	2023/24	2024/25
Agro-industrialisation	6,263	856	1,257	1,313	1,341	1,496
Mineral Development	2,414	222	504	526	541	622
Sustainable Development of Petroleum Resources	2,669	164	575	601	620	708
Tourism Development	5,705	1,238	867	992	1,103	1,506
Climate Change, Natural Resources, Environment, a	1,627	31	352	371	395	477
Private Sector Development	5,141	704	998	1,049	1,071	1,319
Manufacturing	7,884	995	1,454	1,638	1,796	2,000
Integrated Transport Infrastructure and Services	30,607	5,614	5,730	5,882	6,012	7,369
Energy Development	3,067	81	688	717	741	841
Digital Transformation	4,306	382	1,301	1,425	581	617
Sustainable Urbanisation and Housing	2,815	343	603	618	582	670
Human Capital Development	17,219	2,605	3,273	3,430	3,731	4,180
Innovation, Technology Development and Transfer	2,082	224	441	464	444	509
Community Mobilisation and Mindset Change	25,583	3,861	4,628	4,682	4,870	7,541
Governance and Security	3,301	884	560	590	583	683
Public Sector Transformation						
Regional Development	8,011	1,144	1,508	1,641	1,753	1,965
Development Plan Implementation						
Interest Payments Due						
Total Budget	**128,694**	**19,349**	**24,738**	**25,938**	**26,166**	**32,502**

438 The following will constitute the NDPIII financing sources and Government will work towards availing a conducive environment and support:

(i) Domestic Private Investments (including Private savings, Cooperatives, SACCOs, and Retirement Funds)

439 Domestic private investment supported by private savings, cooperatives, SACCOs, and retirement funds will be instrumental in funding NDPIII priorities. Government will strengthen the fora where it interacts with the private sector to facilitate private investment into strategic sectors of the economy. This will be done through reducing overhead costs incurred before an investment decision is made e.g. by government conducting feasibility studies of projects in which the private sector is interested, giving tax incentives to entrepreneurs in strategic sectors, promoting cooperatives and SACCOs or divesting ownership in publicly companies to the private sector to free up resources to fund other public investments.

(ii) Blended Finance

440 Blended finance, such as equity guarantees for energy and transport infrastructure, is another possible source of finance for implementing priorities under this plan. Efforts will be scaled up to explore opportunities for use of blended finance as well as joint financing of regional projects with our neighboring countries. In addition, non-traditional

financing sources like venture capital and collective investment vehicles will be developed further, including re-enforcing the existing regulatory framework.

(iii) Foreign Direct Investment (FDI)

441 The projected FDI flows as already indicated in the external sector outlook will be on average 4.5 percent of GDP per year compared to 3.8 percent in NDPII period. Part of these resources will be directed to NDP projects requiring PPPs. Uganda Investment Authority and the Ministry of Finance, Planning and Economic Development will play a key role in ensuring that investors are provided an appropriate investment environment and facilitate ease of doing business in Uganda.

(iv) Private Remittances and Diaspora Resources

442 Whereas private remittances and transfers have in the past majorly supported household (consumptive) expenses, they are identified as a potential source of investment funds. Consequently, Government is developing modalities for redirecting the utilization of remittances to fund diaspora-focused investments through the issuance of bonds as well as interesting the diaspora in investing in key development projects.

443 Whereas remittances will initially be marginal in the initial years of the NDPIII, the finalization of the Diaspora Investment Strategy in the first year of the NDP will open the window for increased flows in the subsequent years. The Ministry of Finance, Planning and Economic Development, Uganda Investment Authority, Capital Markets Authority, Bank of Uganda and National Planning Authority, and the Ugandan Diaspora will play a key role in ensuring that this investment strategy is finalized and implemented.

(v) NGOs/CSOs and Philanthropy

444 NGOs/CSOs and philanthropy finance a large number of projects, some of which are of a development nature. Specifically, NGOs receive and spend up to 1.4 percent of GDP annually. Therefore, government will amend the law under which NGOs/CSOs are registered to streamline the operations of these NGOs/CSOs to ensure that they only implement priorities articulated in this Plan. In addition, participation of NGOs/CSOs at national, sector and local government level in annual planning will be strengthened to achieve this objective.

CHAPTER 24: RISK MANAGEMENT

24.1 Introduction

445 **The Plan prioritizes increasing household income and improving the quality of life of the citizens.** To achieve this overriding goal, clear objectives, corresponding programmes have been formulated and targets have been set. The Plan exploits the available opportunities within and outside the country that can be tapped into, however, these come along with risks that may impede the realization of intended results. Also, these risks are interconnected and systemic whose impact affects all the NDPIII Programmes.

446 The Plan acknowledges the need for risk informed development as a process and not an event. This is because there is a continuous interaction across local, regional and global risks including; terrorism, epidemics, cybercrime, natural hazards and disasters, climate change, organized economic crimes and sabotage among others. The plan has therefore identified, analysed various potential risks and prescribed possible mitigation, continuous monitoring and management measures during the plan period.

447 Uganda has in the past decade experienced several risks that have had devastating effects **on the households, communities, and the economy at large.** The key risks include:

i. **Natural disasters like floods and drought which have costed the economy and impacted on the lives of the people.** The impact of flood, each year, in Uganda is estimated to be USD 62 million in GDP and impacting about 50,000 people. Also between 2004 and 2013, droughts affected close to 2.4 million people and in 2010 caused an estimated loss and damage value of USUSD1.2 billion, equivalent to 7.5 percent of Uganda's 2010 gross domestic product.

ii. **Market, urban school, household and bush fires**. In addition to the droughts and floods, fire outbreaks follow in the 3rd place in destroying and damaging houses and businesses (markets, schools). Between 2008 and 2018, total fire incidents reported were 9,037; of which 130 relate to fire incidents in schools and 177 fire incidents relating to shops, warehouses and markets. Property worth millions of shillings was lost in these fires and 546 deaths were reported.

iii. **Geopolitics and armed conflicts in the region have had significant impact on Uganda's economy**. The country experienced slow growth of 4.5 percent in 2016 partly due to the unrest in South Sudan resulting in the decline of exports by at least 72 percent, from USUSD25 million to USUSD7 million in the period from June to July 2016.

iv. **Post-election violence and byelections that have disrupted economic activities and extra expenditures on byelections**. The previous election cycles posed macroeconomic instabilities that dampened economic activities and growth. This emanates from the post-election expectations formation and uncertainty among investors about the economy.

v. **Terrorism that has direct negative impact on foreign direct investment and tourism.** Over the past two decades, the Terrorism Index for Uganda has averaged 4.61

from 2002 to 2018 reaching an all time high of 6.09 in 2004 and a record low of 2.76 in 2013. However, in the recent years, the index has increased to 3.96 in 2018 from 3.93 in 2017. The Global Terrorism Index measures the direct and indirect impact of terrorism, including its effects on lives lost, injuries, property damage and the psychological aftereffects.

vi. **Economic crime (Money Laundering; Cyber-attack; Corruption).** Uganda's incidence rate of economic crimes remains high at 66 percent above the continental and global incidence rates at 62 percent and 49 percent respectively. In Uganda, 24% of persons that experienced economic crime suffered a direct loss of between USD 100,000 and USD 1M. Cybercrime incidence rate as well remain high at 31 percent in 2018, and therefore a major current and future threat to development.

vii. **Land acquisition delays for NDPII projects.** Land related disputes have resulted into a 5-11 percent loss in agricultural production. Also, land acquisition delays have stalled and impeded the implementation of key NDPII projects resulting into immediate costs to government inform of idle equipment costs, penalties on non-utilized borrowed funds, and delayed realization of intended investment returns.

viii. **Implementation related risks that equally impacted the achievement of the previous NDPs.** NDPI and NDPII were implemented at 50 percent and 60 percent respectively on account of systemic implementation risks. These ranged from acquisition of loans for non-ready projects, poor negotiation of key PPP projects that shifted risks largely to the public sector.

448 **From the above, it can be seen that there are a number of potential risks that must be embedded throughout all the strategic and operational plans and workplans during the implementation of NDP.** At the broad level, a brief analysis of the NDPIII envisaged risks is included in table 24.1. All MDAs will assess the potential risks and provide appropriate mitigation measures to manage the risk.

449 The analysis of the aforementioned and other potential risks for NDPIII is based on the key causes, the likelihood of occurrence and their expected impact on the realization of the NDPIII results. Broad mitigation measures together with responsible actors are identified.

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Table 24.1: Key NDPIII envisaged risks (Low 1, Moderate 2, High 3; Minor 1, Moderate 2, Significant

SN	Identified Risk	Risk category	Analysis				
			Causes	Likelihood	Impact	Risk rating	
1.	Disasters (floods, mudslides, drought), crime (safety), illness, crop failure, bush and urban fires that lead to reduced household incomes and poor quality of life	Household and Community risks	• Destruction of biodiversity • Cultural practices of bush burning • Inadequate access to health care services • Irresponsible adherence to fire safety standards for fire • Weak community policing	High	Significant	High	• Expand • Increas • Enforc • Strengt • Promot help ini • Strengt disaster
2.	Geo-politics and Armed conflict in the great lakes' region (refugees, loss of export earnings, reduction domestic industrial activity)	Political	Political Instabilities in the neighboring countries like South Sudan and DR Congo	High	Significant	High	• Continu • Strengt • Engage the secu
3.	Post-election violence and byelections	Political	• Dissatisfaction with election outcomes; • Limited civic education; • Negative Propaganda from the media (social media, voice and print);	Moderate	Significant	High	• Early w

			• Limited transparency of electoral processes; • Assumed unequal treatment of political players				• Enhanc and afte • Enforce the med might i • Invoke the situ • Increas process • Enhanc Commi fair ele • Provide politica
4.	Terrorism	Political	• Emergency of various terrorist groups in Congo, Somalia; • Existence of porous borders (Of the 156 entry points, only 53 are gazetted boarders (33 percent) and 103 ungazetted boarders. (67 percent) and of those gazetted many have limited capacity to fully man the entry points). •	Low	Significant	Moderate	• High s all time • Strengt • Strengt intellig • Strengt immigr and exi
5.	International trade risks		• Trade restrictions • Collapse of major bilateral trade partners				• Contin partner • Diversi • Build diploma
6.	Global and regional economic shocks (price fluctuations; oil prices, fluctuation of key	Economic	• Global Demand and supply factors; • Financial crisis • Geo-politics	Low	Moderate	Low	• Increas • Expand bilatera • Increas produc • Mainta

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e civic education before, during er elections	EC, UHRC, CSOs, LGs, UPF, OP (RDCs)
e the Broadcasting Act and refrain dia from issuing information that nsight public uproar; the provisions of the law when ation is considered to create chaos	MoING&ICT, UCC, NITA, Media Houses, Police, Virtual Media Houses
e transparency of electoral es e the capacity of the Electoral ssion to undertake peaceful and ctions e for equal and fair treatment of l actors	EC, Parliament, Political parties, Security Agencies
ecurity and citizens' alertness at s hen security along boarder lines; hen internal and external ence hen the capacity of the ation department to manage entry st of the country	UPDF, CMI, ISO, ESO, UPF, and citizens
ue diversifying of bilateral trade s fy key export products international relations and acy	MoIA, MoFA, MEACA, MoTIC, MoFPED, OP
e internal oil reserves capacity	MEMD, MTIC, Private Sector
l international and regional l trading partners	MTIC, MoFA,
e value addition on locally ed commodities	MTIC, Private Sector,
in macroeconomic stability	MoFPED, BOU

	commodity prices;)		
7.	Macroeconomic policy shocks (Debt risk, credit risk, domestic price fluctuations, exchange rate, policy shifts)	Economic	• Excessive • Low econ • Supply sh • Negative
8.	• Economic crime (Money Laundering; Cyber-attack; Corruption	Economic	• Illicit acq • Weak Ma Security • Weak en laws
9.	Negative mind towards development (people must see results)	Social	• Poor serv
10.	Uncontrolled population growth	Social	• High scho • Unmet ne
11.	Cyber crime	Technological	• Regional • Laxity in

			• Testing of security systems by foreign governments				
12.	Climatic change induced risks (drought, flooding)	Environmental	• Human activity • Global warming • Natural causes	High	Significant	High	• Underta areas • Provide • Enforce practice
13.	Financial and reputational losses to government due to legal matters	Legal and Implementation	• Overlapping mandates • Inadequate consultations • Limited due diligence • Conflicting legal and regulatory frameworks	High	Significant	High	• Strengt Auditor mitigati • Enhanc
14.	Land acquisition delays for NDPIII projects (affecting large scale commercial farming, implementation of core government projects, escalates land conflicts and public disorder)	Legal and Implementation	• Land tenure system • Land ownership rights • Slow justice system • Slow land valuation processes • Lack of inventory of government land at national and districts	High	Significant	High	• Prioritiz projects • Prioritiz private 60 days • Make transpa • Develop pieces o
15.	Inability to appropriately allocate limited resources to key Plan priorities	Legal and Implementation	• Non alignment of budgets to the Plan • Supplementary budgets which have a direct effect on development expenditure • Financing of unplanned activities beyond the contingency fund	Moderate	Moderate	Moderate	• Ensure the ND • Ring expend

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ake Disaster Planning of high-risk e contingence financing e environmental management es	OPM, MWE, CSOs, Public, LGs, MoFPED, MLHUD
hen the Attorney General and r General to adequately provide ion guidance to Public Sector	Attorney General, Auditor General, MDAs, LGs
e diligence and duty of care	Attorney General, Auditor General, MDAs, LGs
ze land acquisition for planned s in the first year of the plan	MLHUD, MoFPED, Solicitor General, and implementing MDAs
ze adjudication for public and sector projects land cases within s	Judiciary and Courts of Law, UPF, MLHUD, MDAs, Attorney General and LGs
land valuation processes rent	MLHUD, Chief Government Valuer
p a data bank of all government of used and unused land	MLHUD, LGs
80 percent budget alignment to P fence (protect) development iture from supplementary budgets	MoFPED, Parliament

16.	Agricultural risks (counterfeit inputs, drought, floods, pests and diseases)	Legal and Implementatio n	• Weak inpu • Weak pes systems • Inadequate • Weak ea planning
17.	Failure to appreciate NDPIII Programmatic approach	Legal and Implementatio n	• Persistenc implemen • Limited capacity
18.	Individual and institutional interests overriding national interest (impact – project execution)	Legal and Implementatio n	• Weak en laws
19.	Failure to have accurate and reliable data for measuring progress	Legal and Implementatio n	• Inadequate • Inadequate • Lack of evaluation
20.	Bureaucracy – slow decision making	Legal and Implementatio n	• Lack of re for action

24.2 General Interventions for Risk Management

450 In order to effectively manage the identified risks so that to achieve the NDPIII planned results, government with relevant stakeholders shall undertake the following:

i. Develop an overall Risk Management Strategy for NDPIII envisaged risk. The Office of the President, Office of the Prime Minister, Ministry of Finance, Planning and Economic Development, National Planning Authority shall develop this in the first year of implementing NDPIII.

ii. All Sectors, MDAs, local government Plans shall integrate risk management. This will be informed by an elaborate risk analysis and corresponding proofing of investments prone to risks. NPA shall assess the extent of integration of risk management during the formulation and implementation of the plans.

iii. Institutionalize and enhance capacities in risk management at all levels including national, sectors, MDAs, and local governments.

iv. Develop baseline data to facilitate progress tracking of risk management indicators. In addition, government shall document risk events and accompanying losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities

v. Strengthen reporting on risk management practices and enhance documentation and sharing information.

CHAPTER 25: MONITORING AND EVALUATION

25.1 Introduction

451 The Monitoring and Evaluation (M&E) strategy for the Plan is informed by the achievements, challenges and lessons learnt from the NDPI End Evaluation and NDPII Mid-term Review (MTR). The strategy articulates the NDPIII M&E reforms, the roles and responsibilities of stakeholders, reporting and dissemination mechanisms, processes, required M&E capacities and events. It also includes the results framework that will guide the data collection, analysis and reporting and information needed to assess implementation progress towards the realization of the NDPIII development goal and objectives.

452 The overall objective of the M&E Strategy is to support coordination of sectors, MDAs, LGs and other stakeholders in undertaking monitoring and evaluation of the NDPIII. The M&E strategy will guide generation of data for: (i) evidence-based planning; (ii) accountability; (iii) monitoring and evaluating policies, programmes and projects; (iv) institutional learning through data utilization and sharing; and (v) decision making through measuring the performance, outcome and impact of development interventions.

453 Office of the President will continue to provide overall oversight of the NDPIII implementation, monitoring and evalaution. The Office of the Prime Minister will provide policy direction for M&E and coordinate implementation and monitoring of the Plan. National Planning Authority will continue to undertake impact evaluation during the plan period.

25.2 The NDPIII M&E Reforms

454 The NDPIII M&E reforms include;

a) **Automated and integrated NDP M&E system:** Government of Uganda is developing an integrated Web based performance Monitoring system that will provide an interface with the PBS and IFMIS. Its operationalization will entail strengthening MDA and LG MISs and capacity to generate NDP periodic progress reports.

b) **M&E institutional architecture:**

   (i) **Creation of the High-Level Public Policy Management Executive Forum (Apex Platform).** This policy reform will strengthen effective public policy management and promotion of good governance and accountability practices. The platform will act as a convener for four government institutions that include; Office of the President, Office of the Prime Minister, Ministry of Finance, Planning and Economic Development, and National Planning Authority through an annual NDP forum chaired by H.E the President.

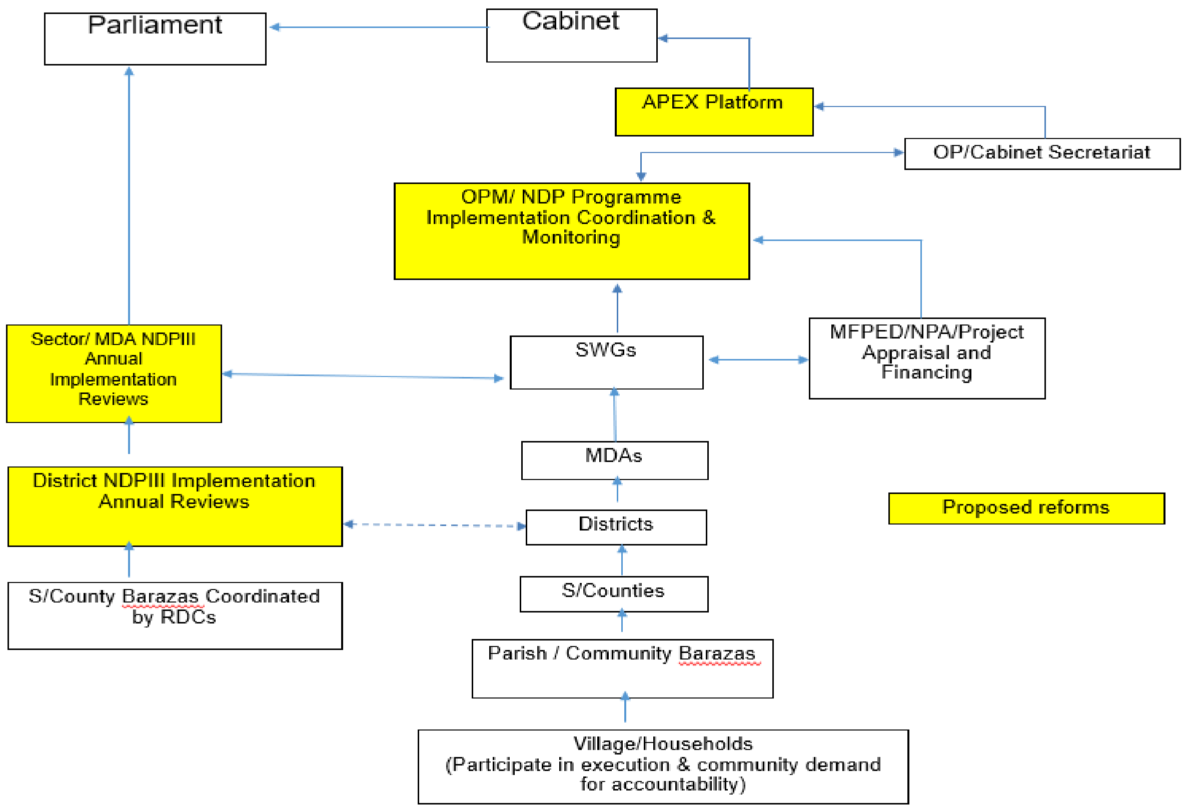
   (ii) **Establishment of programme coordinators.** The capacity of OPM will be strengthened to coordinate the NDP programme approach.

(iii)Expand the terms of reference of the Budget and National Economic Committees to include consideration of the NDP.

c) **Annual Programme Reviews.** Most sectors have undertaken annual joint sector reviews; however, the final outputs of these reviews have been workshop reports. The reviews have also not been guided and focussed. During the NDPIII period, sectors will continue to hold annual programme reviews with a focus on the implementation of the NDP/SDP results. These shall as well have annual programme review reports providing progress on implementation of their respective plans.

d) **Full alignment of the plan, budget and NDPIII results and reporting framework.** The previous plans (NDPI and NDPII) results frameworks focused on measurement of results at the national aggregate (Macro) and sectoral level where it included indicators for the NDP Goal, objectives, Key Performance Areas (KRAs), sector level outcomes and outputs. The integrated results framework will continue to be the basis for assessment as required in issuance of the Certificate of Compliance. It therefore ought to be the basis for formulation of budgets, as well as development of MDA and LG Management Information Systems.

Figure 22.1: Programme Implementation Architecture



e) **Enforce service and service delivery standards to provide a benchmark for monitoring.** This will standardize service delivery and increase efficiency and effectiveness with which public services are delivered. All service delivery units will have service and service delivery standards in the NDPIII period given the priority to attain a middle-income status.

25.3 Roles and Responsibilities of Key Actors

455 In order to avoid over-laps, role conflicts, and uncertainty in the M&E function during the NDPIII implementation, the specific roles and responsibilities of key actors have been detailed in M&E strategy in addition to the institutional mandates. Key institutions with a role in M&E include: Parliament, Presidency, Cabinet, Office of the Prime Minister (OPM), National Planning Authority (NPA), MoFPED, UBOS, BOU, MoPS, MoLG, MDAs, LGs and Non-State Actors (Development Partners, CSOs, Media, Academia, and private sector).

25.3.1 M&E Events and Key Actors

456 The M&E events and processes are summarized in the Table 25.1.

Table 25. 2: Main M&E Events

Main M&E Events	Purpose and Description	Output	Lead Agency	Other Key Actors	Time frame
Annual APEX NDP Forum	Overall review for results	- Recommendation reports	OP	OPM, MOFPED, NPA	Annual
Government Annual Performance Review	Internal review of implementation of Government policies, projects and programmes	GAPR and GHAPR	OPM	Cabinet and MDAs	Semi-Annual and Annual
Alignment of Plans, BFPs and budgets to the NDPIII	Issue Planning Call Circulars to support alignment of Plans, BFPs and budgets to the NDPIII: Issue guidelines to support alignment of SDPs/LGDPs and BFPs to the Plan at sector, MDA and LG levels; and organize annual meetings for planners and budget officers to quality assure BFPs and budgets.	- Certificate of Compliance - Planning Call Circular	NPA	MFPED, OPM, Districts, Sub-counties, MDAs	Call Circular: July every year; Meetings for planners: annually
Project idea identification	Facilitate identification of problems for further development into projects	Public Investment Plan	MDAs and LGs	NPA, PSFU, Academia, Researchers, CSOs, and Politicians	Annually
Pre-feasibility studies	Preliminary assessment of technical and funding options	Project profiles	MDAs	NPA and MFPED	Continuous
Feasibility studies	Assessment of technical designs and financial viability, including social and environmental impacts	Feasibility reports	MDAs	NPA and MFPED	Continuous
Project reviews	Validate findings of feasibility studies, focus and conceptual approach	Project reports	NPA	MFPED, MDAs, PIP Technical Committee	Semi - Annual

Main M&E Events	Purpose and Description	Output	Lead Agency	Other Key Actors	Time frame
Project approvals	- Check identification, pre-feasibility, feasibility and review processes - Reassess project/programme direction, planning/ programming	Project financing reports	Development Committee	OP, OPM, NPA, MFPED, MDAs	Annually
Statistics Production Initiatives	Basis for a 'before and after' assessment of the NDP progress	Survey and census reports	UBOS	OPM, NPA, MFPED, other MDAs as well as LGs	Annually
Evaluative studies	Assess the effectiveness, relevance and intermediate and final outcomes	Evaluation reports	OPM, NPA, MFPED, other MDAs as well as LGs	EPRC, MDAs, Civil Society & LGs	Continuous
Sector Annual Reviews	Assess sector performance, identify challenges and solutions	Sector Annual Review Reports	SWGs, MDAs/ Independent Consultants	NPA, private sector players, Researchers, CSOs, and members of Parliament	Annually
NDPIII/Project Mid-Term Review	Assess mid-term progress of NDPIII and projects and programmes to ensure consistency of implementation with overall focus and objectives	NDP progress reports	NPA	MDAs, MFPED, OPM, LGs, private sector, CSOs, academia, development partners, researchers, Parliament	January-June 2023
NDPIII and Projects ex-post evaluations	To determine effectiveness, relevance, sustainability and intermediate and final outcomes of the NDPIII projects and programmes	Project Evaluation reports	OPM, NPA, MFPED, other MDAs as well as LGs	MDAs, development partners, Private Sector, CSOs, Researchers, general public	July-December 2020 for NDPIII
Impact Evaluations	Assess intended and unintended negative and positive consequences of the NDP including its projects and programmes	Impact Evaluation reports	NPA	MDAs, development partners, Private Sector, CSOs, Researchers, general public	Every Two years after the end of Plan

25.4 Performance Reporting and Dissemination of Results

457 The performance monitoring reports that will be produced and disseminated at various levels are outlined in the sections below.

25.4.1 Economy-Wide Reports

(a) Certificate of compliance

458 Alignment of Plans (5-year SDPs and LGDPs and annual BFPs) and the budgets to the NDPIII will be confirmed through issuance of Certificates of Compliance by NPA to MDAs, LGs, and MFPED. The certification report for plans and budgets will be based on criteria,

developed by NPA and agreed with Parliament, and issued on the 1st April of every year. The Certificate of compliance will in addition provide an assessment of expenditure performance of the Plan.

(b) National Development Report (NDR)

459 Timely production of National Development Reports (NDRs) has since been hampered by the existence of the manual M&E framework and this is to be solved by the introduction of a web based NDP M&E system. To this end, a series of NDRs for the NDPIII will be produced annually by NPA and submitted to Parliament, as required by the NPA Act (2002). The NDR provides a review of the progress made towards achievement of NDP goals, objectives, programmes and corresponding targets. The report will contain an assessment of the development performance of the economy, including the contribution of the public and private sectors, as well as other non-state actors. The NDR will serve as the main monitoring and evaluation annual feedback from the Authority to stakeholders.

(c) Government Annual and Half Annual Performance Reports (GAPR & GHAPR)

460 These reports will continue to be produced annually and semi-annually by OPM to facilitate internal review of Government performance by Cabinet. The reports provide analysis of the performance of sectors, and MDAs against the national budgetary resource allocations. They will be largely focused on assessing progress on interventions that are aimed at achieving planned NDPIII programme results. As before, the GAPR and GHAPR will continue to be disseminated through the Cabinet retreat.

(d) Annual Budget Performance Report (ABPR)

461 MFPED will continue to produce the Annual Budget Performance Report which provides information on the performance of the National Budget against the annual plans. In particular, the report provides analyses of the revenue and expenditure, including sectoral and LG financial and physical performance. The report is disseminated to MDAs and LGs during the national and regional budget conferences, as a key feedback to inform the next budgeting process.

(e) Manpower, skills and Employment Status Report

462 To keep track of the number of jobs created, skills developed and skills required in the short and medium term, a National Employment and Skills development report shall be produced and disseminated every after two years. In this regard, UBOS will develop a more comprehensive employment and labour statistics data base to facilitate reporting on employment and skills development status. NPA will take leadership of production of the report and will work with key stakeholders such as UBOS, EPRC, MoGLSD, MoES, UIA, and PSFU.

25.4.2 Sector level reports

a. Annual Sector Performance Reports

463 During NDPII implementation, not all sectors have been able to produce annual sector performance reports as planned. However, most of the sectors held joint sector review meetings to assess progress, the output being workshop reports. All sectors will therefore be required to produce annual sector performance reports which will be a key performance review reference during finalization of the subsequent financial year's BFPs and budget appropriation by Parliament. Data for production of the reports will be based on management information system reports. All sectors will be required to produce and disseminate the report by October.

b. Quarterly Sector Performance Reports

464 Quarterly sector performance reports are currently produced by MDAs and LGs to provide information on the utilization of funds for the preceding quarter. The reports are mainly used by MFPED and OPM to support the work-plans and justification for release of funds. The reports are currently based on the Programme Based System (PBS) and will be strengthened during NDPIII to relate to the sector MIS' and the NDPIII output and outcome indicators.

25.4.3 Local Government level reports

465 There is no LG that produces an annual performance report. Currently, local governments produce annual budget performance reports which are submitted to the Ministry of Finance, Planning and Economic Development. LGs will therefore produce reports that will be structured to focus on progress of NDPIII and SDP implementation by local governments. In addition, district MIS' will be strengthened as it will be linked to the Web based NDP M&E system to provide data for preparation of the reports.

25.5 M&E Processes

466 The processes for NDPIII M&E will comprise the key tasks outlined in the sections below.

(a) Operationalising the NDPIII M&E Systems

467 This will involve putting in place and strengthening the necessary institutional frameworks and human resource capacities to undertake the identified M&E processes. In particular, all MDAs will have functional MISs that will feed the integrated Web based NDP M&E system. OPM will be strengthened to be able to coordinate all the 18 NDPIII programmes and this will among others include recruiting staff to take lead on these programmes. The PBS and IFMIS will have indicators and targets emanating from the NDPIII results framework to foster alignment.

(b) NDPIII M&E Stakeholders Participation

468 Stakeholder participation will be based on the NDPIII M&E institutional framework and arrangements. This will, therefore, be strengthened in line with the M&E reforms. In line with the NDPIII development plan programme, the M&E function at all levels will be strengthened including at Cabinet, Sector and local government levels to facilitate effective participation of stakeholders.

25.6 Capacity Building

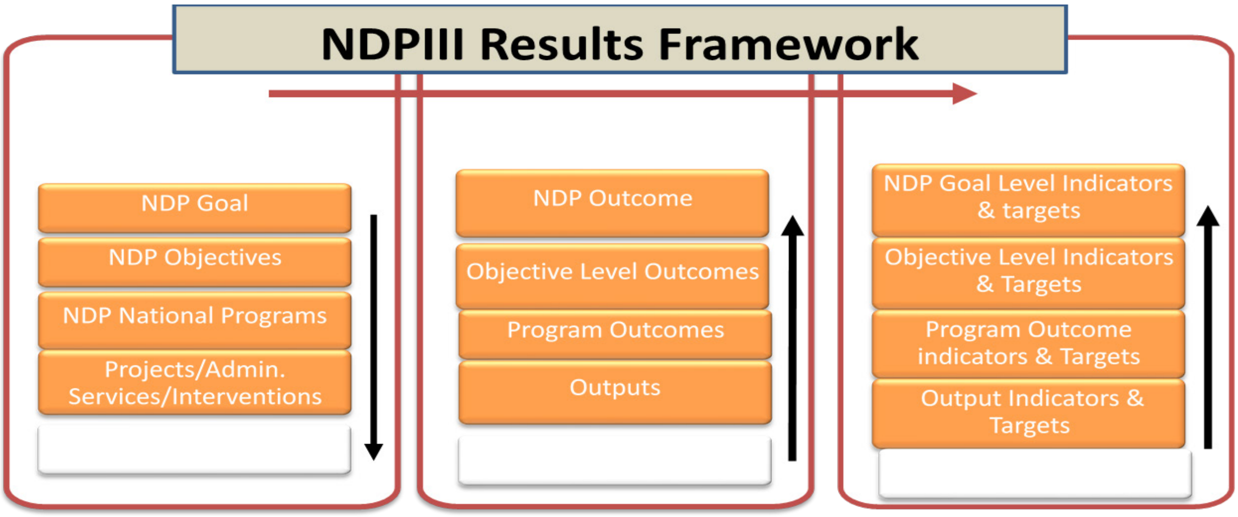
469 During the NDPIII, M&E capacity will continue to be strengthened for both public and private actors at all levels. As part of this strategy, OPM working together with NPA will prepare a detailed training plan for all key stakeholders. The training plan will be aimed at building a critical mass of civil servants to undertake M&E along the Public Investment Management (PIM) cycle. In addition, MDAs and local governments will be required to allocate more funds to M&E departments to enable them deploy adequate human, material and financial resources for quality and useful M&E. The key institutions targeted for M&E capacity building include: The Parliament of Uganda; National Planning Authority; Office of the Prime Minister; Ministry of Finance, Planning and Economic Development; NGO Forum and Other Umbrella Civil Society Organizations; Ministry of Local Government; other Ministries, Departments and Agencies; and Local Governments.

25.7 NDPIII Results Framework

470 The Result Framework will be used to measure and assess progress during implementation of this Plan and a tool for compliance assessment as required under Section 13(7) of Public Finance Management Act, 2015.

471 The detailed NDPIII results framework which is an annex to the Plan focusing on measurement of results at the national aggregate (Macro), Programme and decentralized level. It therefore includes indicators for the NDPIII Goal, objectives, Programme and sub programme level outcomes and outputs (Figure 25.2). The results framework is, divided into indicators for: (i) Higher/Executive level; (ii) Programme and (iii) Sector/sub programme level. The programme and sub programme outcomes and output indicators derived from the NDP culminate into the outcome and impact indicators articulated in the higher-level results framework. The results framework has as well taken care of the SDGs, Agenda 2063, EAC Vision 2050, Human Rights, Gender, IPOA, Green Growth indicators and targets. This results framework shows how the achievement of lower level objectives and interventions by LGs and MDAs leads to the achievement of the overall goal of the Plan.

Figure 25.2: NDP Results framework


NDPIII Results Framework
NDP Goal
NDP Objectives
NDP National Programs
Projects/Admin. Services/Interventions
NDP Outcome
Objective Level Outcomes
Program Outcomes
Outputs
NDP Goal Level Indicators & targets
Objective Level Indicators & Targets
Program Outcome indicators & Targets
Output Indicators & Targets

ANNEXES

Annex 1: Status of implementation of NDPII Core Projects – FY2018/19

	PROJECT	STATUS
	COMPLETED	
1	Isimba Hydro Power Plant	Implementation is at 98%. Commissioned on 21st March, 2019.
2	Road Construction (Earth Moving) equipment	Completed and launched
	UNDER IMPLEMENTATION AND ON SCHEDULE	
1	Karuma Hydro Power Plant	Implementation is at 93.06%. Commissioning planned for December 2019
2	National Grid Extension including Regional Power Pool	On schedule (89% of the works are complete)
3	Phosphate Industry in Tororo	Phase I of the project was completed and launched which accounts for 50% implementation.
4	Markets & Agriculture Improvement Project	On schedule with a progress averaging at 40%. Procurement for construction of 7 markets completed in February 2018, implementation at 25% average. Procurement for construction of other 3 markets completed in May 2018, implementation at 15% average. Procurement of the 11th market is in the final stages.
5	Farm Income Enhancement and Forest Conservation	On schedule where 35% of the project has been delivered
6	The Entebbe Airport Rehabilitation	Project implementation is on schedule, 42% of works are complete.
7	Upgrading of Kapchorwa – Suam road	The Civil Works contract was signed on 7 May 2018. Physical works commenced on 1 October 2018 and completion date is 1 October 2021. Time elapsed is 16.67%. Compensation for Project Affected Persons (PAP) is at 93% and land acquisition is at 93.69%.
8	Uganda Women Entrepreneurship Programme (UWEP)	On schedule (66.1% disbursement)
9	Youth Livelihoods Programme (YLP)	On schedule (61% disbursement)
10	Entebbe Expressway	98.74 % cumulative physical progress
11	Albertine Region Roads	Kyenjojo to Kabwoya - The cumulative progress as of March 2019 was 59.64% of works Kigumba – Bulima - 15.5% of the physical works had been completed Bulima - Kabwoya - The cumulative progress as of end of March 2019 is 78.75% of works
12	Renovation of 25 Selected General Hospital	Renovation of 25 General Hospitals on schedule for completion by 2019
13	Rwenkunye – Apac – Lira – Kitgum – Musingo road	Acholibur- Kitgum - Musingo 86.4km road's overall 100% cumulative physical progress was attained as at end of quarter two of FY 2018/19. Rwenkunye-Apac-Puranga (191 Km) section, Design study for the road was completed. Under procurement for works.
14	Albertine Region Airport (Kabaale international airport-Hoima)	On Schedule at 22.57%
	UNDER IMPLEMENTATION BUT BEHIND SCHEDULE	
1	ICT National Backbone Project	Implementation behind schedule 60% (On Schedule - Phase 4 funds negotiation in progress)

	PROJECT	STATUS
2	Agriculture Cluster Development Project	Implementation behind schedule where only 15% of project has been delivered.
3	Marketing and Product Development Project for Namugongo	Implementation behind schedule (only 20% of project delivered)
4	Comprehensive Skills Development Programme	Implementation for the project is behind schedule (only 7% disbursement as of December 2018).
5	Revitalization of UDC	Legal framework and governance structures established Shs. 55bn provided out of required Shs. 500bn). Recruitment of staff still slow.
6	Recapitalization of UDB	Implementation behind schedule (35% progress - only Shs.103.048 Bn disbursed)
7	Industrial Substations	Overall cumulative progress is 67% Namanve. Substations progress is as: Luzira- 99%; Iganga- 99%; Namanve South- 99%; Mukono- 99%. Transmission Lines progress: Namanve South-Luzira - 10%; Namanve North-Namanve South – 45%; Mukono T-off - 55% and Iganga T-off - 30%
	FEASIBILITY COMPLETED, READY FOR IMPLEMENTATION	
1	Hoima Oil Refinery	Feasibility finalized, RAP finalized up to 98.3%, Investor Secured, Final End Engineering Designs finalized.
2	Grid Extension in North East, Lira and Buvuma Islands	Feasibility finalized, RAP ongoing for 50% of area, under tendering
3	Kabale – Mirama Transmission line	Feasibility finalized, RAP at 10%, tendering ongoing
4	Kampala – Jinja Expressway	Feasibility for the project was finalized and sourcing of financing is ongoing. The project is being appraised by JICA for funding.
5	Kibuye – Busega Express Highway	Feasibility finalized (Kibuye - Busega discussions are on-going with potential financiers.)
6	Kampala Southern bypass	Feasibility finalized (procurement of contractor ongoing)
7	Busega – Mpigi expressway	Feasibility finalized. Under procurement
8	Rwenkunye – Apac – Lira-Kitgum-musingo	- Detailed Designs completed - Under procurement for Works
9	Masaka – Mbarara Transmission Line	Feasibility, RAP at 90%, tendering ongoing
10	Kampala - Bombo Express highway.	Feasibility Study finalized. Detailed Design ongoing scheduled to be completed by Dec 2019.
11	Bukasa Port	Feasibility Study, Preliminary designs and Master Plan Finalised. Preparatory works slated to start in the next financial year
12	Oil related Infrastructure Projects (Oil roads)	Discussions are underway with EXIM Bank of China to provide financing for the following roads: Hoima-ButiabaWanseko; Masindi-Biiso; Kaseeta-Lwera via Bugoma Forest; Wanseko-Bugungu; Buhimba-Nalweyo-Kakindu-Kakumiro; Lusalira-Nkonge-Ssembabule; Kyotera-Rakai; KabaleKiziranfumbi; Tangi Gate Bridge; Bridge After Paraa Crossing; Hohwa-Nyairongo-Kyarushesha (Front End Engineering Design and procurement process for contractor ongoing)
13	Ayago Hydro Power Plant	Feasibility completed
	ONGOING FEASIBILITY STUDIES	
1	Marketing & Product Development Project for Source of the Nile	Feasibility Study and master plan in progress

	PROJECT	STATUS
2	Standard Gauge Rail	Feasibility study, RAP and negotiation of financing ongoing.
3	Strengthening Effective Mobilization, management and Accounting for use of Public Resource (SEMMA)	PFM Reforms on going under FINMAP basket funded project, DPs involved; Norway, Germany, EU, Denmark and UK among others (Feasibility study ongoing)
4	Development of Iron Ore and Steel Industry	Pre-feasibility ongoing
	NOT YET STARTED	
1	Storage Infrastructure	At Concept Note
2	Mass treatment of Malaria	Not Yet started

Source: NPA

Annex 2: Prioritized Minerals for NDP III and their uses

Mineral Element	Locations and Quantities	Primary Uses	Secondary Uses	Tertiary Uses
Phase I Minerals				
Oil & Gas	The Albertine Graben with 1.4b barrels of recoverable oil.	Crude Oil (Petroleum), Liquified Petroleum Gas (LPG), Gasoline, Jet Fuel, Kerosene, Diesel, Motor Oil, Asphalt, Sulphur, Fertilizers, Plastics and several other petrochemicals.		
Marble/Limestone	14.5mil MtatHima,Kaseseand 11.6mil Mt at Dura, Kamwenge and Over 300mil Mt of Marble in Karamoja region	1.Used for making cement and lime both of which are importantinputsin the construction industry. 2. Limeisalsousedas soil conditionerin Agriculture (to reducesoilacidity). 3. Used (marble) as a raw materialformarble tiles 4. used in making Portland cement, and the white varietiesare 5. sed to make calcium carbonate powder used in paint and detergents.	1.Used in waste water treatment withferroussulfate 2.Calcium Supplement in Poultry and livestockfeeds 3.Soil conditioner to neutralize acidic soils (agricultural lime)	1. Used in the Manufacture of glass
Gold	5milouncesofgoldin Mubende DistrictminedbyAngloUganda corporation. 1milouncesofGoldestimatedat	1Jewelry manufacturing 2. Financial Gold: Coinage, Bullion, Backing	1. Usedinawardsand statussymbols 2. Used inaerospace	Used in the computer industry. 2. Mobile phones manufacturing.

Mineral Element	Locations and Quantities	Primary Uses	Secondary Uses	Tertiary Uses
	MashongainBusheny idistrict. 500,000 ounces of gold estimatedatTiira,Busi a,and Over 800,000 ounces estimated at Alupe inBusia. 500,000 ounces of gold at Kampono(Ibanda) 139,000 ounces and possible reserves of 160,000 ounces of gold at Nakabat, Moroto.		3. Used indentistry	
Sand/Aggregates	Diimu & Bukakata, Lwera-Masaka; Nalumuli Bay & Nyimu Bay and Kome Island-Mukono (The highest quality-99.95%SiO_2)	1. Silica sand is the main ingredient in making glass.	1. Used as a construction material.	
Iron Ore	50milMtatMuko-Kabale; 2milMtinMugabuzi-Mbarara; 23milMtatBukusuand 45mil Mt at Sukulu-Tororo, 48mil Mt at Buhara-Kabale (newdiscovery), 55mil Mt at Butogota-Kanungu (new discovery),and 8mil Mt in Bufumbira-Kisoro (newdiscovery)	1. Steel production used in construction (housing/housing appliances), aircrafts.	Alloy with other metals to increase its usability	De-sulphurization, chemical modification and homogenization in theladdles
Phosphates	230mil tonnes at Sukulu with grade of 13.1%P2O5, 50mil tonnes at Bukusu with grade of 12.8%P2O5	1. Used in making of fertilizers. 2. Used in making of detergents and chemicals.	pharmaceuticals with calcium for building and repair of bones and teeth	Used as a polishing agent in the manufacture of toothpaste.
Copper	Kilembe in Kasese District (1.77% Cu, 4.5miltonnes), Boboong in KotidoDistrict, Kitaka	1. Electrical conductors 2. Coins	1. Gunmetals 2. Electronic products manufacturing	Metal alloy with zincornickeltouse in manufacture of boats/ships that don’tcorrode

Mineral Element	Locations and Quantities	Primary Uses	Secondary Uses	Tertiary Uses
	in Bushenyi District and Kampono in Mbarara District		3. Circuitry in manufacturing siliconchipsforu se in micro-Processors to operate faster and use lessenergy	
Phase II Minerals				
Rare Earth Elements	73.6mil tones of REEestimated at Sukulu with grade of 0.32% La_2O_5 Aluminous clays that are enrichedinScandium, Gallium, Yttrium and REE in Makuutu area estimated at 3Bn tonnes with grades of 23% REEand 27%Alumina	Used to produce automotive catalysts and petroleum cracking catalysts, flints for lighters, pigments for glass and ceramics and compounds of polishingglass.	Is used in making high tech electronics products such as highly specialized miniature nuclear batteries, lasers repeaters, superconductors and miniature magnets.	Used as alloys, chemicals catalysts and in glass making 2. Used in glass polishing.
Cobalt	Kilembe (0.17% Co, 5.5miltonnes)	1.Coloring glasses/tinting 2.Paint pigments in construction industry 3.It is widely used in cancer treatment, as a tracer and for radiotherapy due to its resilience in high temperatures, not too radioactive and doesn't hurt patients.	1.Manufacture of high-end equipment like medical or mobile devices using its alloys 2.Mills and drilling bits due to its hardness and resilience in high temperatures.	1. In special alloys for the aerospace industry, electronics and high-tech industry.
Tin	1mil Mt at 2.5% tin estimated in Ntungamo and 2.5m Mt in Isingiro	1. Used mainly for coating iron/steel tominimizerustin g 2. In making cans for the food industry	1. In metals, it is used for bearings and in solder	1. A niobium-tin alloy is used for superconducting magnets. 2. Tin piping and valves maintain purity in water and beverages.
Tungsten	Kirwa wolfram resources are at 801,300Mt with	Used in making armour plate in military equipment,	Used in super alloys to form wear-resistant	Its carbides are used to make cutting and

Mineral Element	Locations and Quantities	Primary Uses	Secondary Uses	Tertiary Uses
	average grade of68.67% WO_3 2.1mil Mt and possible reserves of 355mil Mt at Nyamulirowithoregradeat 0.1%	Manufacture of filaments for electric bulbs and in making tungsten-carbide for drilling bits	coatings.	drilling tools, including a new 'painless' dental drill which spins at ultra-high speeds.
Granite	Bulema-Kanungu; Bugangari-Rukungiri; Mutaka-Bushenyi; Lwemivumbo-Mubende; Nyabakweri-Ntungamo; Lunya-Mukono.	1. Used in buildings, bridges, paving, monuments, and many other exterior projects. 2.Used in indoors, polished **granite** slabs and tiles are used in countertops, tile floors, stair treads and many other design elements		

Annex 3: Mapping of the global, continental and regional development frameworks.

NDPIII GOAL AND PROGRAMMES	SDG	AA2063 (PA – Priority Area)	EAC 2050
Goal: Increase Household Incomes and improve quality of life (GDP per capita, poverty, inequality, human development)	SDG: 1,2, 3,4,5, 6, 8,10	Goal 1 – PA: Incomes; poverty and inequality Goal 4 - Sustainable and inclusive economic growth	Socio-Economic Indicators: Poverty; Income Distribution (Gini Co-efficient)
PROPOSED PROGRAMME	**SDG**	**AA2063: (PA – Priority Area)**	**EAC 2050**
1. AGRO-INDUSTRIALIZATION PROGRAM	SDG: 2, 9, 12	Goal 4 - PA 4.2: STI driven manufacturing/ industrialization, Target b Goal 5: Modern agriculture	Goal: Agricultural production and productivity, GOAL: Leveraging industrialization (Agro-processing industry)
2. MINERAL-BASED INDUSTRIALIZATION PROGRAM	SDG: 9, 9.2 SDG: 12	Goal 4 - PA 4.2: STI driven manufacturing/ industrialisation Goal 7 - PA 7.1 Sustainable consumption patterns	GOAL: Leveraging industrialization (Extractive Industries
3. PETROLEUM DEVELOPMENT PROGRAM	SDG: 9, 9.2 SDG: 12	Goal 4 - PA 4.2: STI driven manufacturing/ industrialization Goal 7 - PA 7.1 Sustainable consumption patterns	GOAL: Leveraging industrialization
4. TOURISM DEVELOPMENT PROGRAM	SDG 8, 8.9	Goal 4: PA 4.4: Hospitality/tourism	Goal: Enhance tourism, trade in goods and other services within the EAC region and with the rest of the world.
5. PRIVATE SECTOR DEVELOPMENT PROGRAM	SDG: 8, SDG: 9, 9.3	Goal 4 – PA 4.2: STI driven manufacturing/industrialisation Growth of SMEs	GOAL: Leveraging industrialization (Industrial Development and SMEs)
6. MANUFACTURING PROGRAM	SDG: 7, 8, 9, 12, 13	Goal 4 – PA 4.2: STI driven manufacturing/industrialisation Growth of SMEs	GOAL: Leveraging industrialization (Industrial Development and SMEs)

7. INNOVATION, TECHNOLOGY DEVELOPMENT AND TRANSFER PROGRAM	SDG: 17, 17.6	Goal 4 – PA 4.2: STI driven manufacturing	GOAL: Improved access to affordable and efficient Regional transport, energy and communication network
8. SUSTAINABLE ENERGY DEVELOPMENT PROGRAM	SDG 7 SDG: 12	Goal 7- PA 7.5 Renewable energy Goal 1: PA 1.4 Modern and liveable habitats (electricity) Goal 7 – PA 7.1 Sustainable consumption patterns	GOAL: Improved access to affordable and efficient Regional transport, energy and communication network
9. TRANSPORT INFRASTRUCTURE DEVELOPMENT AND SERVICES PROGRAM	SDG 9 SDG: 12	Goal: 10 Goal: 4 Goal 6 – PA 6.2 Port Operations	GOAL: Improved access to affordable and efficient Regional transport, energy and communication network
10. DIGITAL TRANSFORMATION	SDG:9, 17	Goal 10	GOAL: Improved access to affordable and efficient Regional transport, energy and communication network
11. SUSTAINABLE URBAN DEVELOPMENT PROGRAM	SDG 11	Goal 1 – PA 1.4: Modern and livable habitats	Cross-cutting issue: Cities of the Future and Human Settlements
12. HUMAN CAPITAL DEVELOPMENT PROGRAM	SDG: 3,4,6 SDG: 5,8,10	Goal: 2,3, and 1 (PA 1.3: Social protection) Goal 1: PA 1.4 Modern and livable habitats (water and sanitation) Goal 17: Full gender equality Goal 18: Engaged and empowered youth and children	Enabler: Education, Health Cross-cutting issue: Gender, Women and Youth Empowerment
13. WATER, ENVIRONMENT, CLIMATE CHANGE AND NATURAL RESOURCE MANAGEMENT	SDG: 6, 13, 14, 15	Goal 1: Modern and Livable Habitats and Basic Quality Services (Water and Sanitation)	GOAL: Sustainable utilisation of natural resources, environment management and conservation with

		Goal 7: Environmentally sustainable climate resilient economies	enhanced value addition.
14. PUBLIC SERVICE TRANSFORMATION PROGRAM	SDG: 16, 17	Goal 12 – Institutions and transformative leadership	Cross-cutting issue: Management framework and Policies
15. COMMUNITY MOBILIZATION AND MINDSET CHANGE PROGRAM	SDG: 16, 16.7, 16.10	Goal 16: African Cultural Renaissance is pre-eminent Goal 12 – PA 12.2: Participatory dev't and local governance	Culture and Sports: culture and creative industry, EAC Culture fund, EAC Cultural identity
16. GOVERNANCE AND SECURITY PROGRAM	SDG: 16	Goal 11: Democracy and governance, HR and rule of law Goal 13: Peace, security, and stability are preserved Goal 14: A stable and peaceful Africa Goal 15: A fully functional and operational African peace and security architecture	GOAL: Democratic values, human rights, access to justice and the rule of law Goal: A Peaceful and Secure East Africa
17. DEVELOPMENT PLAN IMPLEMENTATION PROGRAM	SDG: 16, 17	Goal 12: Institutions and transformative leadership Goal 20: Goal 20: Africa takes full responsibility for financing her development	Cross-cutting issue: Management framework and Policies
18. INCLUSIVE RURAL DEVELOPMENT PROGRAM	SDG: 1, 1.2 SDG: 2, 2.3 SDG: 8, 8.2	Goal 1: Goal 1 – PA: Incomes; poverty and inequality Goal 5: Modern agriculture	Socio-Economic Indicators: Poverty; Income Distribution (Gini Co-efficient) Goal: Agricultural production and productivity

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