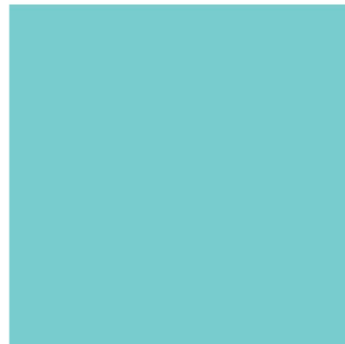


# Strategic Dialogue on Advancing Infrastructure Development in Africa - Technical Experts Meeting Victoria Falls, 25-26 June, 2018

## Session 3: Regional infrastructure for development and job creation *Brief on PIDA Job Creation Toolkit*

Symerre Grey-Johnson  
Head of Regional Integration Infrastructure and Trade Programme (RIITP)



# The Objectives of the PIDA Job Creation Toolkit

*Serve as a practical tool catalyzing a new African jobs focus in the development and operation of Africa's infrastructure projects, maximising the number and quality of African jobs*

The Toolkit implements African & Global Political Mandates – Examples:

- AU Mandates: 2018-2027 period declared “*African Decade for Technical, Professional and Entrepreneurial Training and Youth Employment*”( 29<sup>th</sup> ordinary Summit of the AU, July 2017)
- Lome Declaration: “*Finalise and disseminate the Job Creation Toolkit to estimate and track labour market effects of regional infrastructure programs; Provide a practical guide for project implementers on how to integrate skills development and employment promotion in the infrastructure project lifecycle; Support the creation of a Platform that matches African Infrastructure Projects with African Suppliers, enabling project sponsors, governments, development partners, African Civil Society and the private sector to collaborate in needed interventions*” (African Ministers of Infrastructure - March 2017)
- Africa Talks Jobs Communiqué: “*Invest in relevant education and training that equips learners including women and girls with appropriate and dynamic skills, competencies and behaviors that match the current and future needs of labor market through among others, curriculum alignment with national visions and development aspirations. To this end Member States commit to develop national labor market information systems (LMIS) and benefit from the PIDA Job Creation Toolkit to match skills demands in different sectors.*”
- Sustainable Development Goals (SDGs): “*Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.*”

## TOOLKIT METHODOLOGY: KEY VALUE-ADDED FEATURES

- Job Estimation Best Practices: Uses National Input-Output Tables, leveraging decades of job estimation approaches used worldwide by multilateral organizations (e.g., World Bank, OECD, etc.) and governments of both developing and developed countries
- Includes Full Spectrum of Job Creation:
  - Direct jobs (jobs created by the project)
  - Indirect jobs (jobs created by suppliers to the project)
  - Induced jobs (jobs created by spending of direct and indirect workers)
  - Secondary jobs (jobs created as a result of the economic impact of the completed project, such as increased access to energy and transport)
- Includes Job Creation Over Life Cycle of Project: Covers the useful life of the project (i.e., until the project is estimated to stop operating)
- Provides Labor Market Information: Breaks out project job estimates by economic sectors for planning of skills development & education programs
- Serves as Advisory Tool for Job Creation Interventions: Provides Policymakers, Project Owners, partners and other stakeholders with range of job maximization policies, programs, processes, etc. with case study examples and resource links

## BEST PRACTICES, COMPLEMENTED WITH EMPOWERING FUNCTIONALITY

- Use by Project Owners: By providing information on the inputs and location of project inputs, Project Owners can directly obtain their project job estimates
- Empower Project Owners to collaborate effectively: Lead Project Owners can invite input from Partners (other Project Owners & technical partners such as engineers & advisors)
- Enable Scenarios: Project Owners and Partners can develop alternative scenarios by varying the inputs and country sources
- Enables catalytic facilitation role of NEPAD: Scalable concrete job estimates clearly demonstrates the job creation of PIDA Projects to Project Owners, policymakers, the private sector, and other stakeholders

PIONEERING – a first in African I-O Tables; on-line scalable approach; coverage of all created jobs (especially secondary); open to all Project Owners; ability of Project Owners to crowd in Partners, create scenarios, publish for public access; access to job maximization interventions, case studies, and resources

# TOOLKIT OUTPUT AND CONTENT

- LEVEL I: ESTIMATION OF NUMBER AND TYPES OF JOBS (PROJECT OWNER INPUT & ESTIMATES FOR PUBLIC ACCESS)
  - Direct, indirect, induced jobs during project preparation, construction, O&M phases
  - Secondary jobs as a result of improved infrastructure service (from economic spill-overs)
  - Sectors of the economy in which jobs are created
- LEVEL II: JOB MAXIMIZATION INTERVENTIONS (JOB MAXIMIZATION AND CASE STUDY MODULES FOR PUBLIC ACCESS)
  - Project Level: Actionable interventions to maximise jobs during project phases of (Actors: Project Owners, Technical Partners, Host Governments, development partners, investors)
    - Project design (sourcing of materials, equipment, services, labour)
    - Terms of Reference (studies, construction, O&M) – requirement for local content, training, apprenticeships, local partners, etc
  - Policy Level: Actionable interventions to maximise jobs at national & regional levels (Actors: National Governments, RECs, AU, development partners)
    - Procurement processes & requirements (local content, local partners, training, etc. )
    - Financing requirements
    - Labour market projections to inform policy and decision makers for education and skills planning
  - Case Studies: Provide examples from both developing and developed countries that leverage existing project & policy interventions

## Toolkit approach: By project phase encompassing full spectrum of job creation

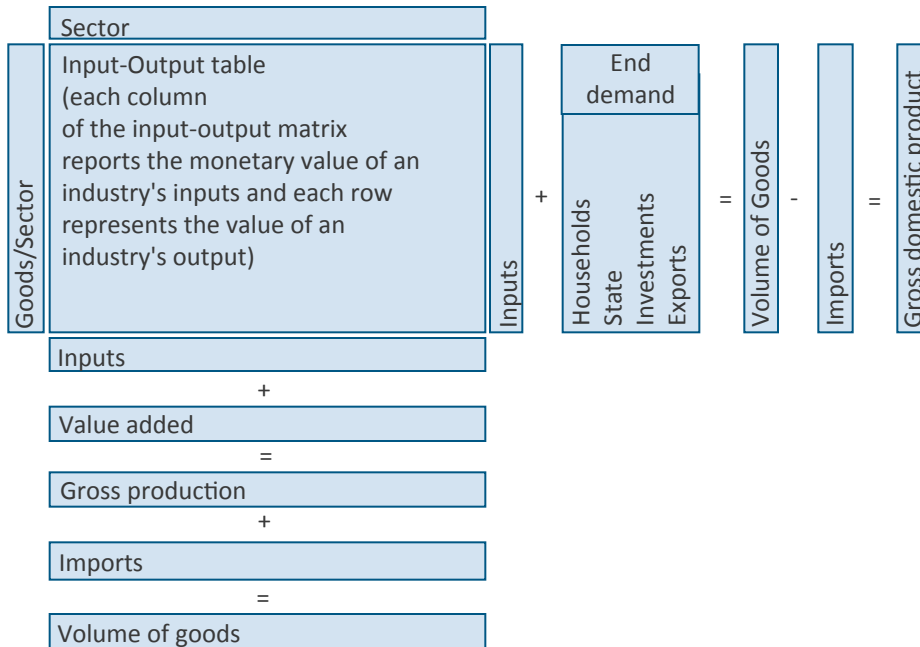
Stage of Project	Type of Jobs	Definition
Project Preparation	Direct jobs	Employment generated in the short term in the course of preparing the project for implementation (e.g., technical studies, financial advisory, training, setting up management structures, etc.)
	Indirect jobs	Employment generated by businesses providing inputs for project preparation (e.g., office buildings, equipment, services, etc.)
	Induced jobs	Employment generated by household spending based on the income earned by direct and indirect workers engaged in project preparation
Construction	Direct jobs	Employment generated in the course of project construction
	Indirect jobs	Employment generated by businesses providing inputs for the project construction (e.g., raw materials, equipment, etc.)
	Induced jobs	Employment generated by household spending based on the income earned by direct and indirect workers engaged in construction
Operation & Maintenance	Direct jobs	Jobs required to operate and maintain the infrastructure project (O&M)
	indirect jobs	Employment generated by businesses providing inputs for O&M (e.g., repair supplies, equipment, etc.)
	induced jobs	Employment generated by household spending based on the income earned by direct and indirect workers engaged in O&M
Secondary effects		Externalities resulting from spill-overs of project on the rest of the economy (e.g., regional trade, enhanced industrial output)

# CORE USE OF AFRICAN INPUT-OUTPUT TABLES (EXAMPLE OF ENERGY)

Output side (use side)

Estimate infrastructure investment by input category (e.g., construction, equipment, etc.)

Input side



• Direct, indirect and induced jobs in project preparation, construction, and operations & maintenance

• Direct, indirect and induced jobs resulting from secondary effects

- I-O Tables depict the interdependencies between economic sectors, and are used to estimate the impact of positive or negative economic shocks through an economy (investment in infrastructure is a positive shock)
- I-O Tables assumes that some inputs (investment in infrastructure) are used by sectors that produce output (intermediate output), which in turn is sold to another sector for consumption (final output); total output adds intermediate and final outputs
- By using labor productivities, one can calculate job creation from output

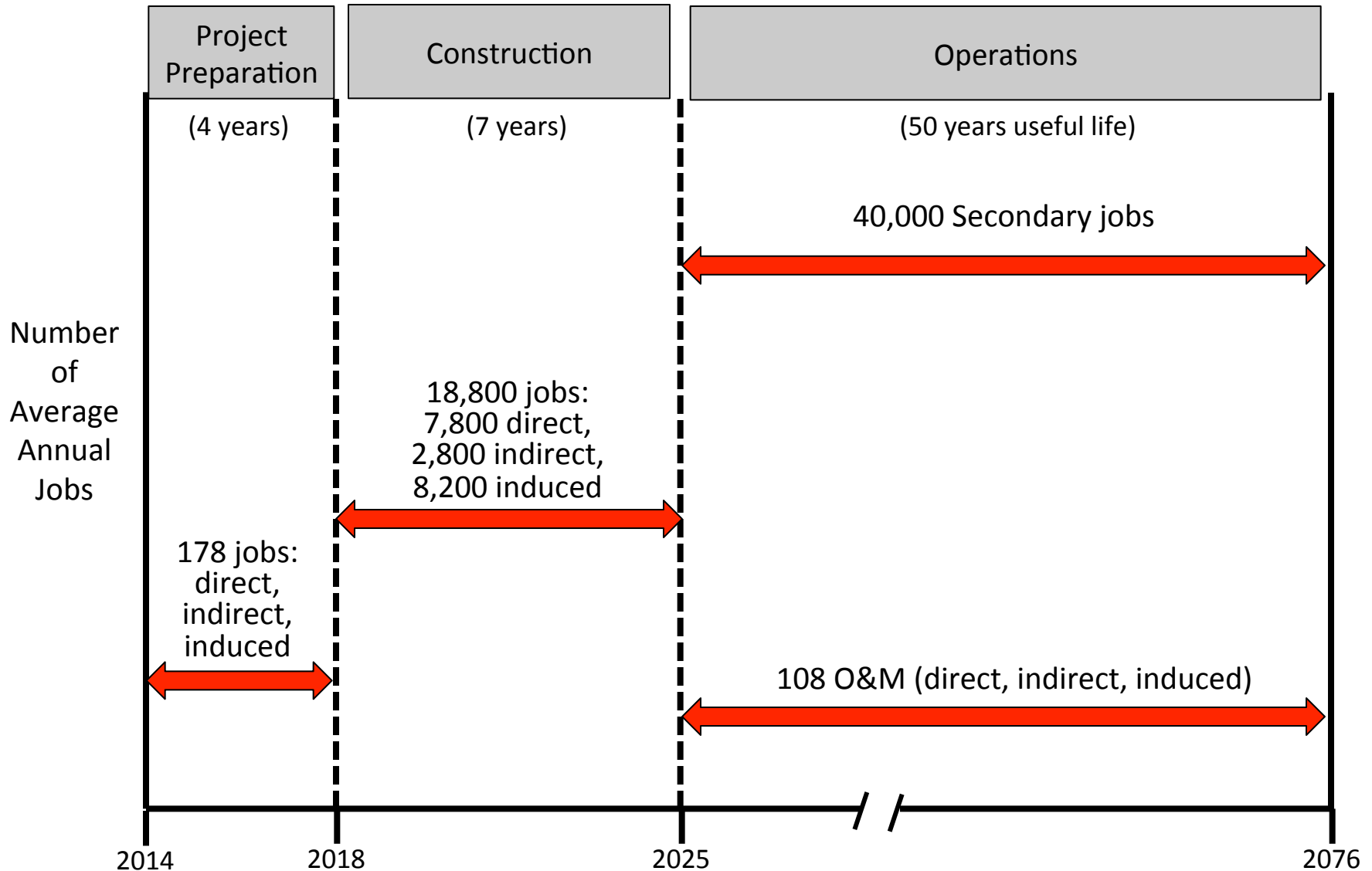
# BATOKA GORGE CREATES ESTIMATED 2.1 Million Job Years (based on preliminary assumptions)

59,000 Job Years from Project Development, Construction, and Operation  
2 Million Secondary Job Years from Economic Spill Over Impact

	Over Eleven Year Project Development Time		Annual over Project Useful Life		Total Over Project Useful Life		Total
	Project preparation	Construction	O&M	Secondary effects	O&M	Secondary effects	
Zambia	252	78,159	56	18,462	2,810	923,100	1,004,321
Zimbabwe	254	53,555	52	14,879	2,628	743,950	800,387
S. Africa	206	-	-	5,707	-	285,350	285,556
Other countries	-	-	-	905	-	45,100	45,100
<b>Total</b>	<b>712</b>	<b>131,714</b>	<b>108</b>	<b>39,953</b>	<b>5,438</b>	<b>1,997,500</b>	<b>2,135,364</b>

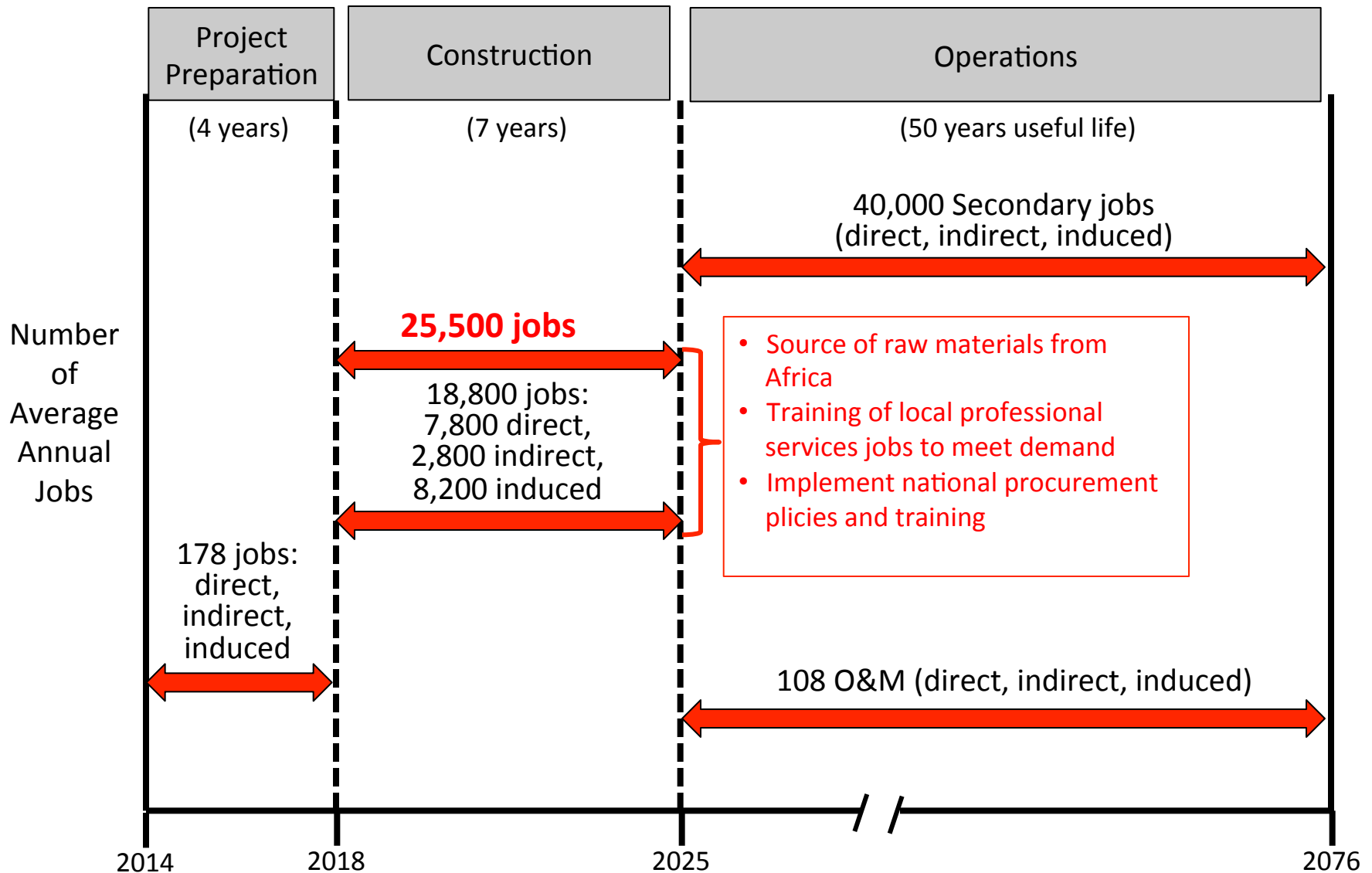


# BATOKA GORGE Creates Estimated 59,000 Annual Jobs (based on preliminary assumptions)



Note: Annual job are average for time period




# Possible BATOKA GORGE Job Maximization Strategy: 6,700 additional annual jobs in construction phase



- Source of raw materials from Africa
- Training of local professional services jobs to meet demand
- Implement national procurement policies and training

Note: All estimates include direct, indirect and induced jobs

# Mapping Job Estimates to Occupations & Job Maximization Interventions

PROJECT PHASE	EXAMPLES OF OCCUPATIONS	EXAMPLES OF POTENTIAL INTERVENTIONS
<p>Project Preparation</p> 	<ul style="list-style-type: none"> <li>• Project developers</li> <li>• Financial advisors</li> <li>• Engineers</li> <li>• Procurement experts</li> </ul>	<ul style="list-style-type: none"> <li>• Require contractors to employ and train local engineers</li> <li>• Provide supplementary training programs with local business associations &amp; schools</li> </ul>
<p>Construction</p> 	<ul style="list-style-type: none"> <li>• Construction supervisors</li> <li>• Engineers (design)</li> <li>• Procurement experts</li> <li>• Site safety directors</li> </ul>	<ul style="list-style-type: none"> <li>• Require contractors to use local materials, labour, and partners that meet quality/price thresholds and conduct training</li> <li>• Provide support to local contractors (bidding, finance)</li> </ul>
<p>Operations and Maintenance</p> 	<ul style="list-style-type: none"> <li>• Unskilled labor</li> <li>• Mechanical operators</li> <li>• Maintenance and control engineers</li> <li>• Site safety specialists</li> </ul>	<ul style="list-style-type: none"> <li>• Provide peer-peer training</li> <li>• Provide support to local contractors (bidding, finance)</li> <li>• Track training and employment performance by key targets (youth, gender, etc)</li> </ul>

*Thank you*