

Launch of the PIDA Job Creation Toolkit

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Contents

- ✓ **What are the Functionalities of the PIDA Job Creation Toolkit?**
- ✓ **Case Study: Hydropower Project & Job Creation**
- ✓ **Panel Discussion**



There are four action areas the PIDA Job Creation Toolkit helps you to create local employment

Estimate Jobs

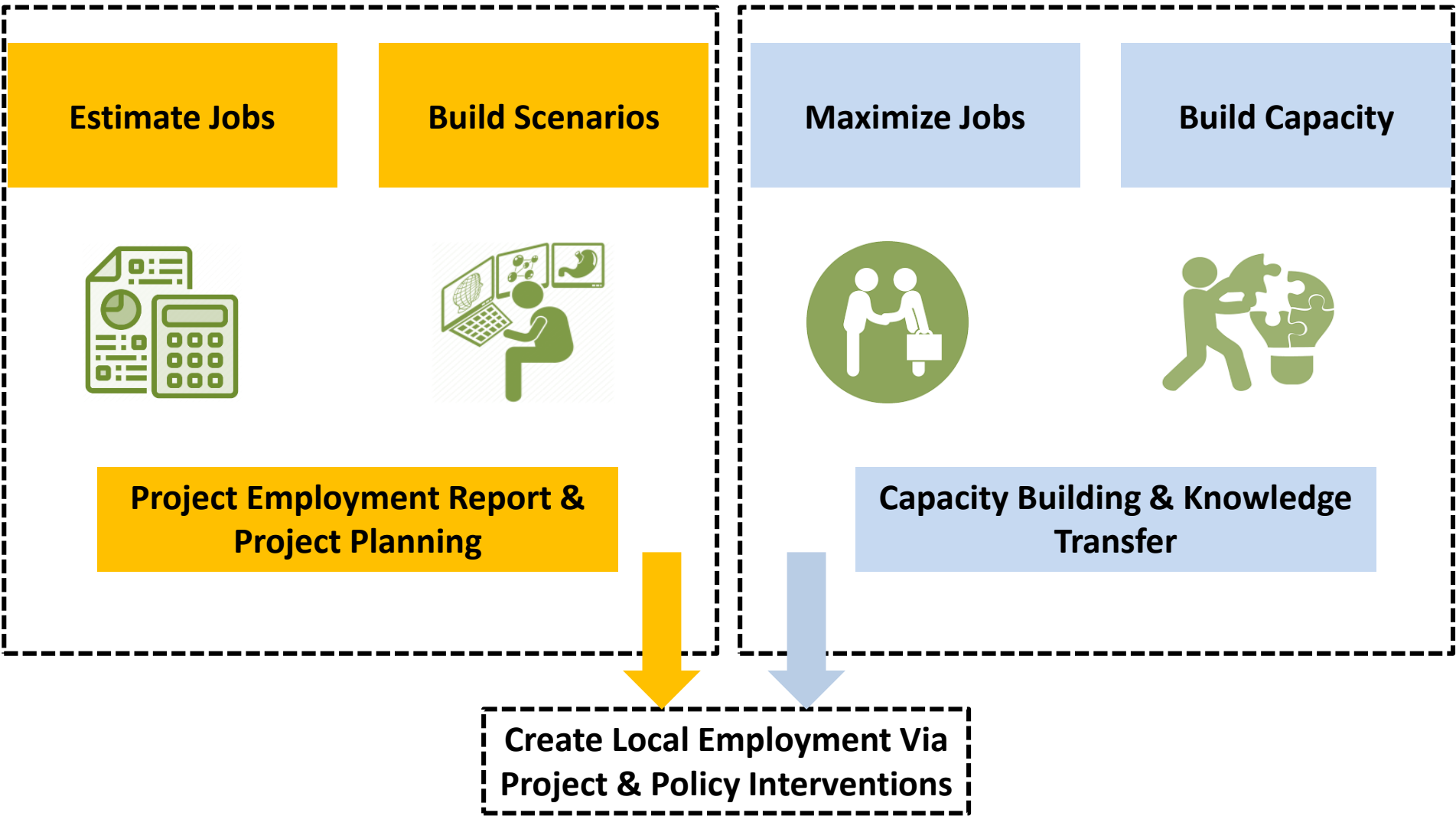
Build Scenarios

Maximize Jobs

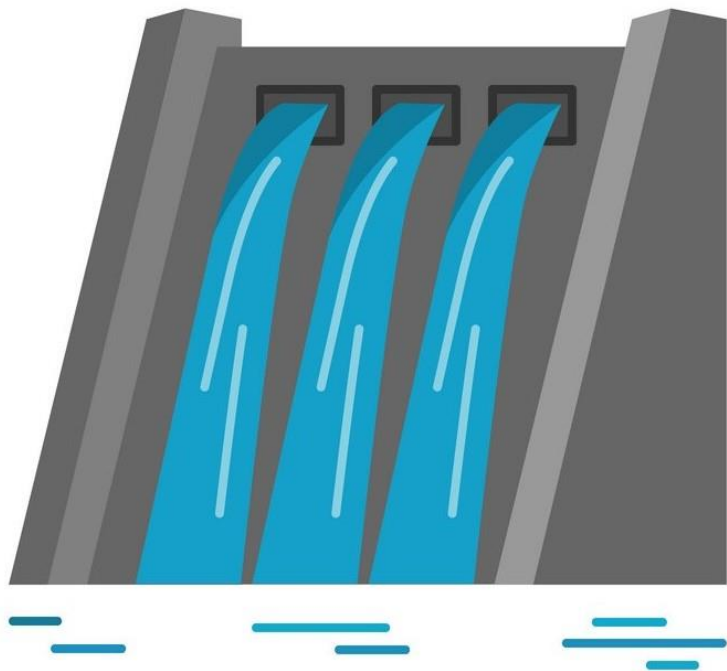
Build Capacity



The four action areas can help you to work on project and policy level



Hydropower Project Data to Estimate Jobs



HYDROPOWER ENERGY

- Energy capacity regionally distributed and traded.
- Project has 2 host countries and regional beneficiary countries
- Jobs calculation based on project investments; time frame and country I-O tables:
 - Preparation: XX USD over 5 years
 - Construction: XX USD over 7 years
 - Annual O&M: XX USD for 50 years
- Project costs invested locally and outside Africa: investment leakage
 - Preparation: 73% local; 27% leakage
 - Construction: 20% local; 80% leakage
 - Annual O&M: 65% local: 35% leakage



Annual Job Estimates for a Hydropower Project

TYPE OF JOB CREATION	Project Preparation	Construction	Operation & Maintenance	Average Annual Jobs
NUMBER OF YEARS PER PROJECT PHASE	5	7	50	
Direct Jobs	120	4,262	861	1,185
Indirect Jobs	38	2,076	375	540
Induced Jobs	50	4,105	738	1,063
Secondary Jobs	—	—	—	20,794
TOTAL AVERAGE JOBS	208	10,443	1,974	23,581

4000 annually needed in 2 host countries to construct this dam (e.g. supervisors, laborer's safety directors,

	Project Preparation	Construction	Operation & Maintenance	Total
TOTAL JOB YEARS	1,043	73,109	98,685	1,462,037



Local Content Scenario in Construction Inputs

Baseline Percent	Scenario Percent
100%	100%

Project Construction Cost

Basic Material Inputs

Cement, gravel, concrete, etc. ⓘ	21.00%	21.00	African Source ▼	Non-African Source ▼	Add Source
Outside Investor Country A	100.00%				
Host Country: A	0%	50.00			
Host Country: B	0%	50.00			
Iron and steel ⓘ	1.40%	1.40	African Source ▼	Non-African Source ▼	Add Source
Outside Investor Country B	100.00%				
Host Country: A	0%	25.00			
Host Country: B	0%	25.00			
Beneficiary country: A	0%	50.00			

+ 5078 jobs annually in host countries due to local cement sourcing during dam period

+ 890 jobs annually in host countries due to local iron/steel sourcing during dam construction



SECONDARY EFFECTS

Potential jobs due to improved provision of electricity in the **beneficiary country**:

- +500 in the electricity/water/gas sector



Potential jobs due to improved provision of electricity in the **host country**:

- +4000 in the trade sector



- +400 in financial services



ECONOMIC SECTORS	Induced Preparation Phase Jobs	Induced Construction Phase Jobs	Induced O&M Jobs	Secondary Jobs During Operations Phase	Total Jobs in Operations Phase
Metal Products	0	0	0	0	0
Manufacturing	0	0	0	0	0
Electricity, Gas, and Water Generation & Distribution	0	0	0	532	532
Electricity, Gas, and Water Generation & Distribution	0	14	0	3,236	3,237
Construction Labour	0	0	0	1	330
Trade	3	144	23	4,699	4,739
Transport	0	19	7	624	641
Communication	0	11	1	212	217
Financial Services	0	20	3	455	461
Business Services	0	9	1	60	154



Build Capacity for Labour Market to locally Operate & Maintain Hydropower Plant

ECONOMIC SECTORS	Preparation	Construction	O&M
Construction Labour	0	2,028	321
Trade	0	100	17
Transport	0	106	11
Communication	0	38	5
Financial Services	0	4	1
Business Services	50	5	115

- host country is in critical short supply of technical/managerial skills across industries, **particularly low in engineering and electrical/mechanical engineer**

- This data can inform government of Host Country A to prepare professions for local O&M uptake when dam goes operational
- Host Country A can develop medium to long term human resources/skills development plan and align this strategy with secondary education/university/TVET schemes



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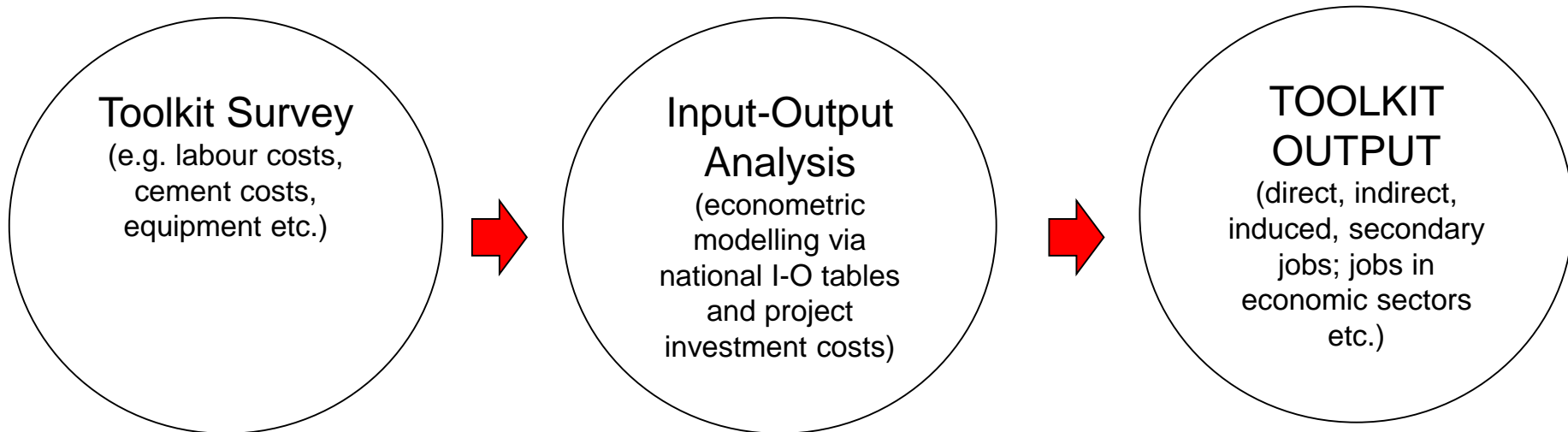
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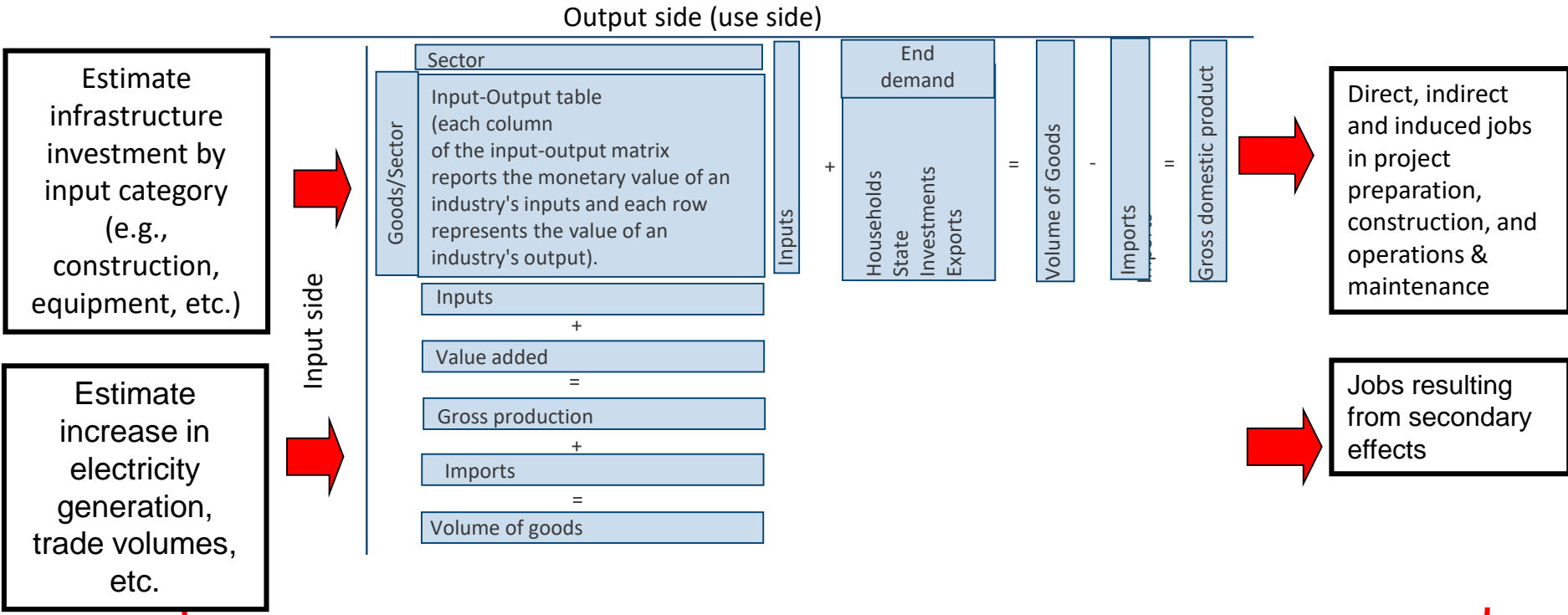
ANNEX



Job estimation process



FOUNDATION: AFRICAN INPUT-OUTPUT TABLES



- I/O tables depict the interdependencies between economic sectors, and are used to estimate the impact of positive or negative economic shocks on 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



Exhibit 10: Examples of Occupations by Economic Sectors

Economic Sectors	Examples of Occupations	Electricity, Gas, and Water Generation & Distribution	Sales workers; clerical support services; engineering professionals; power production plant operators; incinerator and water treatment plant operators; environmental protection professionals; metal, machinery and related trades workers; assemblers; drivers and mobile plant operators; business and administration professionals; etc.
Agriculture & Food Products	Farming, forestry and fisheries advisers; environmental protection professionals; sales workers; clerical support services; food-processing workers; food and related products machine operators; street vendors; market-oriented skilled agricultural, forestry, fishing and hunting workers; subsistence farmers, fishers, hunters and gatherers; business and administration professionals; etc.	Construction	Construction managers and supervisors, labourers, safety directors, etc.
Textiles, Apparel, Leather	Production managers in agriculture, forestry, and fisheries; sales workers; clerical support services; textile and leather products machine operators; handicraft workers in textile, leather and related materials; business and administration professionals; etc.	Trade	Sales, advertising, and marketing professionals; retail and wholesale trade managers; trade brokers; commercial sales representatives; public relations professionals; conference and event planners; business and administration professionals; etc.
Wood & Paper Products	Sales workers; clerical support services; wood processing and papermaking plant operators; wood working, handicraft, printing and other craft and related trades workers; Wood processing and papermaking plant operators; business and administration professionals; etc.	Transport	Transport conductors, conductors, and guides; aircraft pilots and related associate professionals; air traffic controllers; air traffic safety electronics technicians; ship engineers, deck officers, and pilots; travel consultants and clerks; motor vehicle mechanics and repairers; aircraft engine mechanics and repairers; business and administration professionals; etc.
Mining	Mining managers and supervisors; sales workers; clerical support services; engineering professionals; environmental protection professionals; mining labourers; stationary plant and machine operators; assemblers, drivers and mobile plant operators; metal, machinery and related trades workers; business and administration professionals; etc.	Communication	Information and communications service managers, telecommunications engineers; software and applications developers; web and multimedia developers; technicians, technology professionals; electronics and telecommunications installers and repairers; authors, journalists, and linguists; business and administration professionals; etc.
Cement, Mineral, Chemical, Petroleum & Other Products	Plant operators for cement, gravel, petroleum and natural gas refining; engineering professionals; environmental protection professionals; metal, machinery and related trades workers; sales workers; clerical support services; assemblers, drivers and mobile plant operators; business and administration professionals; etc.	Financial Services	Finance and investment managers, advisors, analysts, and accountants; credit and loan officers; securities and finance dealers and brokers; credit and loan officers; customer services clerks; insurance representatives; business and administration professionals; etc.
Metal Products	Sheet and structural metal workers, moulders and welders, and related workers; engineering professionals; environmental protection professionals; metal processing and finishing plant operators; metal, machinery and related trades workers; stationary plant and machine operators; assemblers; drivers and mobile plant operators; sales workers; clerical support services; business and administration professionals; etc.	Business Services	Business and administration professionals; engineers (industrial and production, civil, environmental; mechanical, chemical, mining); etc.
Manufacturing	Manufacturing managers; sales workers; clerical support services; engineering professionals; metal, machinery and related trades workers; stationary plant and machine operators; assemblers; drivers and mobile plant operators; business and administration professionals; etc.	Other Services	Jobs related to recreation, cultural and sporting activities, private households with employees such as sports, recreation and cultural centre managers; architects, town and traffic planners; creative and performing artists; gallery, museum and library technicians; household help; business and administration professionals; etc.
		Public Administration	Senior officials; legislators; policy and finance professionals; government licensing officials; customs and border inspectors; government tax and excise officials; economists; engineers; lawyers; architects; town and traffic planners; teachers (university, vocational, secondary & primary education; health professionals; environmental protection professionals; business and administration professionals; etc.