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DAI Local Content Masterclass

15th – 17th May 2019

Houston, USA

Day 2 Program

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DAY 2	Local Content Forecasts and Procurement
9:00 – 9:30am	Basic Concepts
9:30 – 10:00am	Local Content Forecasting: Industrial Baseline Studies
10:00 – 10:30am	Exercise #4: Industrial Baseline Studies
10:30 – 11:30am	Roaming coffee (whilst completing exercise)
11:30 – 12:00pm	Exercise #4 Debrief
12:00 – 12:30pm	Contracting Strategy
12:30 – 1:30pm	Lunch
1:30 – 2:30pm	Leveraging Local Content in Major Contract Tenders
2:30 – 2:45pm	Exercise #5 – Weighting Local Content in Tender Evaluation
2:45 – 3:15pm	Factoring Local Content into the Award Decision
3:15 – 3:30pm	Coffee Break
3:30 – 5:00pm	Exercise # 6 Evaluation of Local Content in Major Contract Tenders
5:00 – 5:30pm	Exercise #6 Debrief

DAI Local Content Masterclass - Course Map

DAY 1 **Local Content Policy, Regulation and Plans**

- Definitions
- Policy and Regulation
- Stakeholder Dialogue
- Policy Trade-offs
- Local Content Plans

DAY 2 **Local Content Forecasts and Procurement**

- **Industrial Baseline Studies**
- **Local Content Forecasting**
- Contracting Strategy
- Major Contract Tendering

DAY 3 **Local Supplier Development and Local Content Reporting**

- Registration and Pre-Qualification
- Writing a Winning Bid
- Local Supplier Development and EDCs
- Reporting and Metrics

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Overview of Forecasting

1. Definitions
2. Basic Concepts
3. Sample Forecasting Approach: DAI Local Content Optimization Model
4. Group Exercise

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Forecasting Context: Local Content Definition

Sample Broad Definition

The **participation** and **development** of **national** capital, labour, goods, services and technology in the planning and execution of oil, gas and mineral exploration, development and production.

Sample Country Definition (Oman)

In-Country Value is defined as the total spend **retained in country** that benefits business development, contributes to human capability **development** and **stimulates** productivity in Oman's economy.

Industrial Baseline Study Definition

Total local content = *local profits + local wages + value of local goods*

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Industrial Baseline Study Definition

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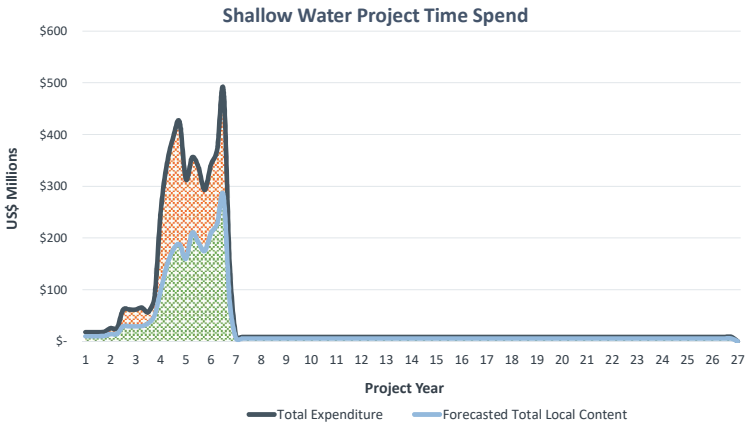
What is an industrial baseline study?

Industrial baseline studies (IBS) analyze the local, national, and/or regional **gap** between the demand for and supply of local goods, services, and labor across multiple supply chains within a given sector and/or project.



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Defining the Gap

What is "the Gap"?

The Gap is the **difference** between Maximum Possible Local Content (Max LC) and Forecasted Baseline Local Content (Baseline LC)

What does "the Gap" represent?

The Gap represents the Local Content that local firms are not capturing that they **could capture** if all supply chains were on average competitive to international standards; i.e. the gap represents the **opportunity space**

Types of Industrial Baseline Studies

Historic

- **Format:** gathers ***historic*** data to establish a baseline of ***actual*** Local Content performance
- **Purpose:**
  - *Ground truthing* of recent Local Content performance
  - Supports the calibration of forecasts

Forecasted

- **Format:** gathers ***live*** data on baseline local supplier capability and matches to expenditure ***projections***
- **Purpose:**
  - Forecast Local Content performance
  - Facilitates setting realistic LC targets

Industrial Baseline Study Context

EXPECTATIONS

- In-country sector experience
- Level of resource development (exploration, production, etc.)
- Size and availability of discoveries

INFORMATION

- How prepared is the private sector?
- What are the challenges and opportunities?
- How big is the supply-demand gap?

PREPARATION

- What strategies and actions are required to fill the gaps?
- What investments are required?
- What are the roles of different stakeholders?

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Additional Terms used in Forecasting Analyses

- **Maximum Possible Local Content (Max LC):** Given the owner's contracting strategy (i.e. preference/openness to local sourcing), the maximum value of possible local content if all contracts made available to local firms were won in full by local suppliers.
- **Total Local Content (LC):** The forecasted value of local content that is captured through prime suppliers (international Tier 1 contractors active in the local market) and locally established firms, given their current competitiveness vis a vis international firms.
- **Full Contract Awarding**: The forecasted value of local content captured by local firms who obtain full awards/contracts (as opposed to subcontracts).
- **Subcontract Awarding**: The forecasted local content captured by local firms through subcontracts. DAI assumes a lower acceptable competitiveness threshold for subcontracts due to project/risk management; HSSE and Quality supervision; and support from Tier-1 contractors.
- **Full Time Equivalent Jobs (FTE)**: The equivalent hours worked by one employee over the course of a calendar year (assumes 2,080 hours on an annual basis).

*DAI expresses Local Content metrics as USD values calculated as the sum of salaries paid to local national employees, the value of domestic origin goods, the profits returned to local firms, and the value of the overhead and G&A activities of local firms. Exact formulas depend on the type of firm, mix of national and expat employees, and percent of imported goods.

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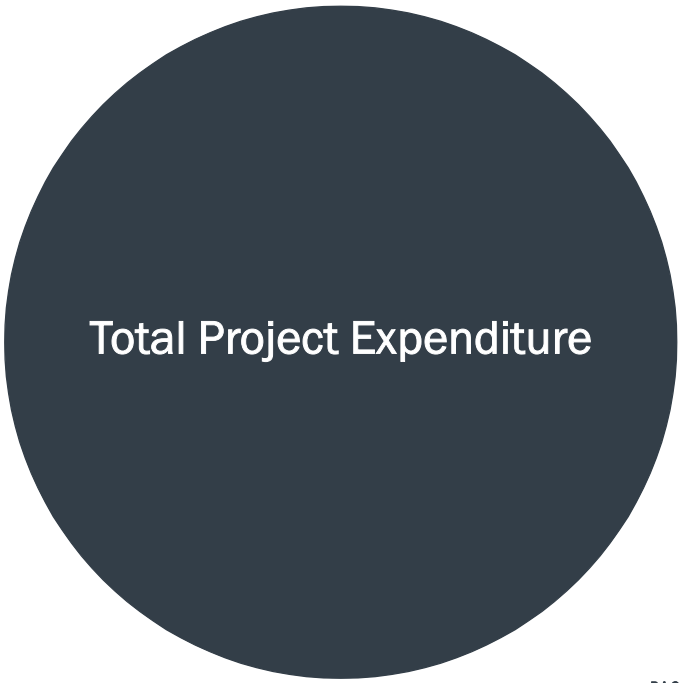
Local Content Forecasting: *Basic Concepts*

Understanding the Discount



Understanding the Discount

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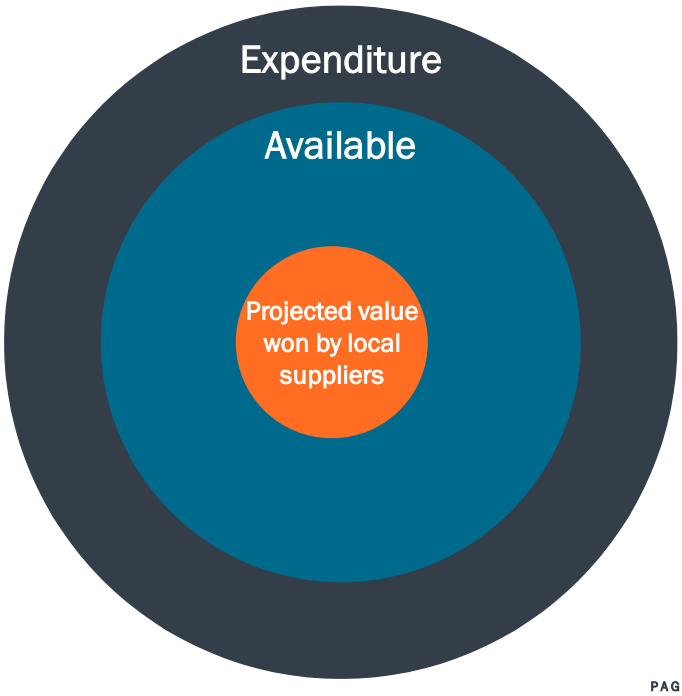
Understanding the Discount



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Purpose of Local Content Forecasting

Informs private sector approaches to local content
- Gain insights into local capabilities and informs procurement strategy
- Informs development of local content plans
- Generates reliable data source that helps drive multi-stakeholder alignment and policy collaboration

Informs public sector approaches to local content
- Use information to set reasonable, relevant local content minimums or baselines
- Identifies the "opportunity space" for development initiatives and prioritize based on return-on-investment

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Local Content Forecasting: *A Sample Modelling Approach*

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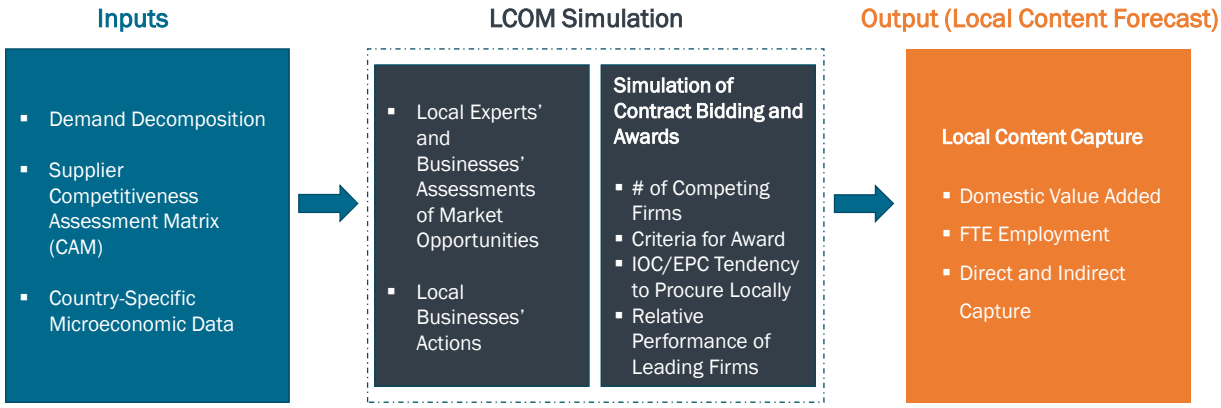
DAI's Local Content Forecasting Process

DAI has developed a standard forecasting approach using **Local Content Optimization Model** (LCOM), a local content forecasting tool which simulates the procurements that typically occur over the life of a capital project, based on inputs such as expenditure and local supplier capacity.



Conducting a Local Content Analysis using LCOM

01 Demand: Cost Decomposition

DAI defines an illustrative or anticipated project on a monetary basis and breaks these values down by phase over time and across 45 key supply chain categories in the LCOM model.

02 Supply: Supplier Competitiveness

DAI uses a Local Supplier Competitiveness Assessment Matrix (CAM) to provide broad-level measurements of local supplier capacity against key qualification criteria in each of the 45 supply chain categories.

03 Local Content Optimization Model

DAI runs the LCOM forecasting software using the collected demand (project) and supply (local supplier) data to produce forecasted baseline and maximum estimates of local content capture.

Inputs: Demand and Supply

Demand-Side:

Understand how much is being spent, when, where, and in which supply chain categories.

- A detailed cost breakdown of one or multiple projects (both for CAPEX and OPEX)
- Goal: Map expenditure in each supply chain category across *entire* project over time

Supply-Side:

Understand local supplier competitiveness and workforce availability/skills

- Quantify local supplier capability to deliver goods and services over project life
- Goal: Determine local supplier competitiveness, strengths, challenges, and gaps against international standards

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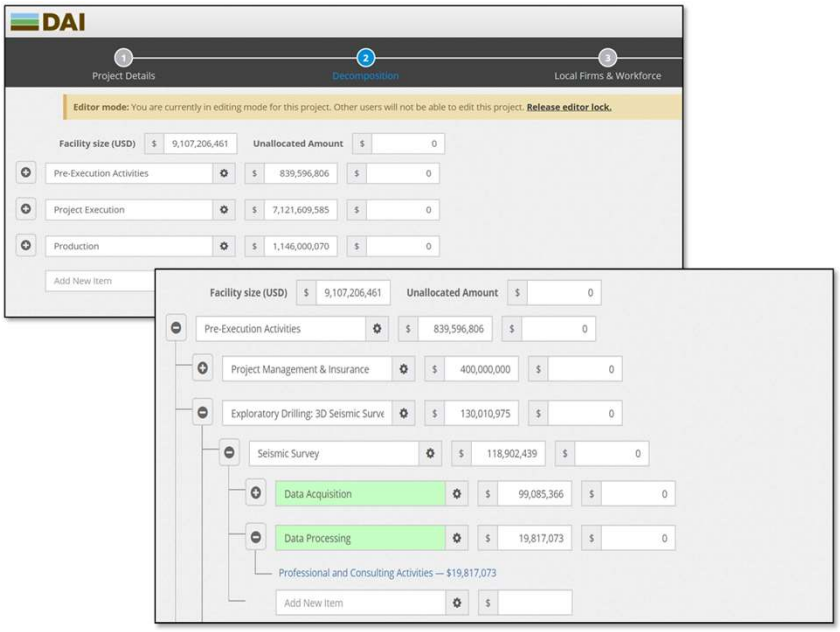
Demand-Side: DAI's Demand Decomposition Structure



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Supply-Side: DAI's Competitiveness Assessment Matrix

The Competitiveness Assessment Matrix (CAM) score provides an intuitive, quantitative indicator of a local firm's ability to provide goods and services relative to international competitors.

Total CAM Score: 5.025

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DAI's Approach: Nine Sub-Criteria of Competitiveness

Business Capacity	Compared to international competitors, how well can the firm raise adequate financing for expansion and deliver the required services or goods for major projects? How well can the firm respond to fluctuations in demand? Specifically, how well can they respond to the increased capacity required by an O&G tender?
Cost & Pricing	To what extent are the costs of production in line with international norms? How do the firm's prices compare to industry standards? To what extent are existing costs determined outside the firm (due to high prices of inputs, both domestic and imported)?
Operations	How does the firm's documented operational structure, policies and procedures compare to international norms? Does the firm have an organizational chart? Does the firm implement financial reporting and controls, vendor management, and business planning? How comprehensive are the firm's written safety policies and procedures?
Market Experience	Do the firms in the sector have recent experience with major procurements like the ones associated with the investment project? Is there competition among firms? Do firms have experience partnering with international suppliers to pursue procurement opportunities?
Quality Standards	Relative to international competitors, can the firms produce services and goods that meet international quality standards? Do they have company-wide quality certifications (e.g. HACCP, ISO, GlobalGAP, HSE compliance, etc.)?
Business Inputs	Relative to international competitors, how difficult is it for this firm to obtain its required inputs? Does it rely on a single supplier? Does it receive its inputs in a timely manner? Are the inputs of sufficient quality, and are they competitively priced?
Timeliness	Relative to international competitors, what is the average performance of the firms in the sector with respect to on-time delivery of services and goods? Are there typically significant controversies regarding the timeliness of the delivery? Are there typically factors outside the control of the sector that explain any significant delays?
Workforce Skills	In comparison with the workforce in foreign firms, do firm employees have the requisite skills? Have they obtained the necessary certifications? Are firms able to obtain specific skill requirements when needed?
Workplace Safety	How do the rates of workplace accidents and injuries at the firms in the sector compare with those of its international competitors? To what degree is worker compliance with safety rules and regulations as issue compared to workers in foreign firms?

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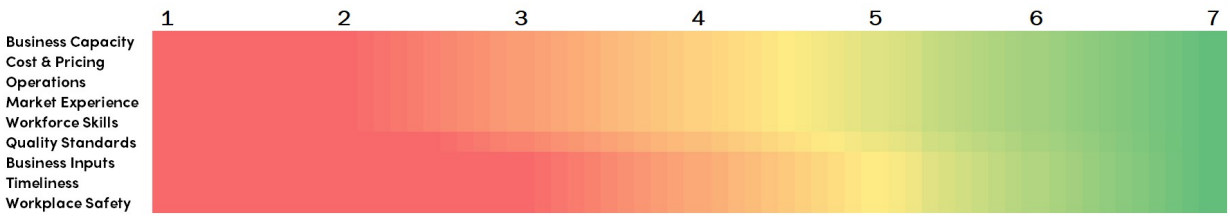
DAI's Approach: Interpreting CAM Scores



- Scores within the green range indicate likely **minimal or addressable gaps** and would be **eligible for full or partial awards** and are **ideal candidates for supplier development programs**.
- Firms with scores that fall within the light green range represent potential subcontractors for low risk goods and services; these firms would also be eligible as a second tier candidate for supplier development programs.
- Scores in the yellow/red range signal that competitive gaps against domestic standards exist—and that gaps relative to international standards are likely significant and **not easily/quickly addressable**.
- CAM scores provide an effective first step in understanding the abilities of supply chains and suppliers to meet international standards and expectations. CAM scores **should not** be seen or used as a substitute for in-depth technical or pre-qualification evaluations.

DAI's Approach: Local Supplier Analysis

LCOM Supply Chain	Capacity	Cost & Prices	Market Experience	Workplace Safety	Quality Standards	Timeliness	Workforce Skills	Operations	Business Inputs
Air Travel	3.83	3.2	4.42	6.3	5.08	4	5.4	5.33	3.25
Short Term Accommodations	3.92	5.92	3.45	4.09	4.27	4.89	3.62	3.92	4.71
Civil Works	3.9	4.6	3.94	4.79	4	4.16	3.96	4.56	4.36
Field Production/Operation Services	3.76	4.6	4.3	4.34	4.4	4.67	3.74	4.63	4.2
Paving and Road Works	4.33	5.5	3.08	3.83	4.37	3.77	3.58	4.44	4.75
Insurance Activities	3.58	4.75	3.46	3.42	4.21	4.43	4.76	5.33	5.27
Design and Construction of Buildings	3.42	4.99	3.69	4.05	3.92	4.5	4.27	3.92	5.03
Engineering, Testing, and Inspection Activities	3.42	4.99	3.69	4.05	3.92	4.5	4.27	3.92	5.03
Mechanical Equipment Installation	3.42	4.99	3.69	4.05	3.92	4.5	4.27	3.92	5.03
Mechanical Equipment Manufacturing/Procurement	3.42	4.99	3.69	4.05	3.92	4.5	4.27	3.92	5.03
Storage Tanks	3.42	4.99	3.69	4.05	3.92	4.5	4.27	3.92	5.03
Information and Communications Systems	4.06	4.78	3.38	3.75	4.66	4.3	4.08	4.85	4.58
Electrical and Instrumentation	4.34	4.45	4.01	3.9	4.65	4.24	3.66	4.38	4.34
Electrical Equipment Installation	4.34	4.45	4.01	3.9	4.65	4.24	3.66	4.38	4.34
Electrical Equipment Manufacturing/Procurement	4.34	4.45	4.01	3.9	4.65	4.24	3.66	4.38	4.34
Monitoring Sensors and Control Devices	4.34	4.45	4.01	3.9	4.65	4.24	3.66	4.38	4.34

Forecasting Exercise

LCOM Exercise: Instructions

1. Walk through the process of local content forecasting – demand decomposition, supplier analysis, scenario setting (10 min).
2. Review the model outputs (10 min):
   - Each scenario's output
   - Compare and contrast each scenario
3. Discuss as a team (10 min):
   - How is local content generated in each scenario?
   - Which Categories are most competitive? Least competitive?
   - Which Categories have the most local content?
   - Which Categories have the largest and smallest job numbers? Why?
   - Do high spend categories automatically generate high levels of local content? Find evidence to explain why.
4. Consider you must select 5 priority Categories around which to develop more local content. Which would you choose and why? (10 min)
   - Explain why these categories lend themselves to local content development?
   - Not all opportunities can be afforded. What trade-offs are you making?

LCOM Exercise: Analytic Questions

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Think about the following questions and how the two scenarios compare to each other.

1) What do the project level local content metrics tell you about the opportunities for local firms in each scenario? Compare each scenario.
2) What metrics do you feel are most informative?
3) How does the local content by contract type shift between each scenario?
4) Which supply chains are the most competitive in each scenario? Explain your reasoning.
5) Which supply chains capture the greatest local content in each scenario? What metrics are you using to make this assessment? Explain your reasoning.
6) Which supply chains are the least competitive in each scenario? Explain your reasoning.
7) Which supply chains capture the least local content in each scenario? What metrics are you using to make this assessment? Explain your reasoning.
8) What supply chains are most improved over the 10 years? What supply chains are least improved?
9) What does the timeline graph tell you about how local content is captured throughout the project life in each scenario? What differences do you see between each scenario?
10) At what skill level are the majority of local jobs? What does this tell you about the local workforce? How have job opportunities shifted over the 10 years?
11) Which supply chains generate the most local jobs in each scenario? The most expat jobs in each scenario? How have job opportunities shifted over the 10 years?
12) What recommendations would you provide to an International Oil Company (IOC) based on the outputs in each scenario?
13) What recommendations would you provide to a National Oil Company (NOC) based on the outputs in each scenario?
14) What recommendations would you provide to a government body based on the outputs in each scenario?

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