



The Effect of Local Content Policy (Lcp) on Economic Growth in Sierra Leone, 2015–2025

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Abstract- This paper estimates the association between the implementation of Sierra Leone's local content policy (LCP) and sectoral economic growth over 2015–2025. Using a balanced panel of six sectors (mining, construction, agriculture, manufacturing, tourism and energy) observed annually, giving 66 sector-year observations, we regress sectoral output growth on a composite LCP implementation index. The models control for sector investment, export intensity and inflation, and absorb sector and year fixed effects. The baseline two-way fixed-effects estimate is positive: a one-point rise in the 0–100 index is associated with 0.20 percentage points higher output growth (HC1 $p = 0.007$; wild cluster bootstrap $p = 0.013$), or about two percentage points for a ten-point rise. The estimate is similar when 2020 is excluded (0.16). Among the index components, the evidence points to local firm participation (0.07; bootstrap $p = 0.037$) rather than local procurement or local employment shares. The result is not robust, however. It disappears when the index is lagged by one year, and no within-year association is found with the log value-added index once common time effects are controlled. We therefore read the evidence as suggestive of a contemporaneous but short-lived growth association, not as proof of a causal long-run effect. With six sectors and eleven years, the study is a transparent first quantitative assessment rather than a definitive evaluation. We discuss measurement, data-consistency and identification limits, and draw implications for the design, monitoring and phased review of the Local Content Agency Act 2016.

Keywords: local content policy; economic growth; Sierra Leone; sectoral panel; linkages; industrial policy; fixed effects

I. INTRODUCTION

Resource-rich and import-dependent economies have long worried that growth in their leading sectors does little for the rest of the economy. Mining, energy and large construction projects often buy their inputs abroad, employ few nationals in skilled roles and leave limited technological spillovers behind. Local content policies (lcps) are a response to that concern. They require, or strongly encourage, producers to source part of their inputs, services, equity and labour from the domestic economy, with the aim of keeping more of the value created inside the country (ramdoo, 2016). Their use has spread widely in extractive industries and beyond, but the evidence on whether they raise growth is thin and mixed, and most of it comes from the petroleum sector (tordo et al., 2013; Korinek and ramdoo, 2017).

Sierra Leone is an unusually interesting case. The Sierra Leone local content agency act, 2016 (act no. 3 Of 2016) created a statutory agency, annual local content plans, certification and scorecard systems, and a performance-reporting regime, and it applies across several sectors rather than to oil and gas alone (parliament of Sierra Leone, 2016). The economy it targets is small, import-dependent and exposed to commodity prices, with real growth that fell from 5.7% in 2023 to 3.9% in 2024 amid high inflation (African Development Bank, 2025). The World Bank argues that a

stronger private sector is the key to sustained growth and jobs (World Bank, 2025a). Whether local content enforcement helps or hinders that aim is therefore a live policy question, and a decade of implementation now allows a first quantitative look. This paper asks one main question and three subsidiary ones. The main question is whether stronger LCP implementation was associated with faster sectoral output growth in Sierra Leone between 2015 and 2025. The subsidiary questions are (i) whether the association is carried by particular components of local content (procurement, employment or firm participation), (ii) whether it is stronger in extractive sectors, where linkage arguments are most prominent, and (iii) whether it appears with a lag or only contemporaneously.

The study contributes in three ways. First, it supplies a sector-level quantitative assessment for a country whose local content experience has so far been described mainly through legal analysis, official reports and press coverage. We found no peer-reviewed panel evaluation of the act while preparing this paper. Second, it tests the policy at the level of the composite index and of its three components, which helps to separate the channels that the policy literature emphasises. Third, it is explicit about what a six-sector, eleven-year panel can and cannot show. We use small-sample inference suited to few clusters, report results that do not support the headline finding alongside those that do, and document inconsistencies in the data that readers should know about. The main finding is conditional. In the baseline two-



way fixed-effects model, higher lcp implementation is associated with higher contemporaneous output growth. The relationship weakens sharply when the index is lagged and is absent when output is measured by the value-added index. The evidence is therefore consistent with a short-run association but cannot establish a lasting causal effect. The remainder of the paper is organised as follows. Section 2 sets out the policy background and macroeconomic context. Section 3 reviews the literature and states the hypotheses. Section 4 describes the data and empirical strategy. Section 5 reports the results, section 6 discusses them, and section 7 concludes with policy implications and limitations.

II. POLICY BACKGROUND AND CONTEXT

1. The legal and institutional framework

Sierra leone's local content framework rests on the local content policy and, since 2016, on a statute. The local content agency act, 2016 received assent on 11 february 2016 and was published in the sierra leone gazette on 3 march 2016 (sierralii, 2016). It establishes the sierra leone local content agency (sllca) as a body corporate and sets out a set of

instruments. These include the annual sierra leone local content plan that bidders and operators must submit, a certification system, a local content scorecard, an online portal for buyers and sellers, a joint qualification system, a consultative forum, performance reporting and a part on offences (parliament of sierra leone, 2015 bill text). The act applies across sectors, including construction, fisheries and marine resources, manufacturing, health and energy, and contains dedicated provisions on petroleum, agriculture, procurement and institutional food supply. In practice the agency has also concluded implementation agreements with mining companies. The world bank's summary of the framework highlights a fund to support local suppliers and a rule that a tenderer must subcontract at least 30% of a contract's value to small and medium enterprises and other covered persons, together with a policy provision that 20% of the equity of every registered foreign entity should belong to sierra leoneans (world bank ppp library, 2016; world bank ppp library, n.D.). Government officials have described the reporting requirements as the least burdensome part of the act and the act as milder than local content laws elsewhere in africa (premier media, 2023).

2. Implementation, 2016–2025

Table 1. Selected milestones in the implementation of sierra leone's local content framework

Date	Milestone	Source
2012	Local Content Policy reported to have been introduced, later developed into the 2016 Act	Awoko, n.d.
Feb–Mar 2016	Act No. 3 of 2016 assented (11 Feb) and gazetted (3 Mar)	SierraLII
2016–2018	Finance Acts reinforce enforcement of the policy	Sierra Leone Telegraph, 2018
Feb 2021	GIZ–SLLCA stakeholder consultation; Agency plan includes review of the Act and monitoring of public and NGO procurement	Premier Media, 2021
May 2022	President announces review of the Act to address grey areas and use AfCFTA opportunities	Premier Media, 2022
Nov 2022	Three-day stakeholder workshop on reviewing the Act (SLLCA and GIZ)	Premier Media, 2022b
Oct 2023	Roundtable between SLLCA, Ministry of Trade and development partners	Premier Media, 2023
Mar 2025	First quarterly Consultative Forum of the year held under Section 66	Premier Media, 2025a
Jun 2025	Local Content Plan Implementation Agreement signed with FG Gold Ltd	Premier Media, 2025b
Oct 2025	Agreement and approval of 2025–2027 Local Content Plan for Sierra Mineral Holdings	Premier Media, 2025c

Implementation has been gradual and has relied on negotiated agreements as well as formal enforcement. Table 1 summarises the main documented milestones. The agency has also publicly named companies it found in breach of the act, among them a mobile operator, a chinese construction contractor and two hotels (sierra leone telegraph, n.D.).

Taken together, these records point to rising enforcement effort and a shift from general promotion towards company-level agreements, especially in mining. This is consistent with the upward drift of the implementation index used in this study (section 4).



3. Macroeconomic context

The sample period was economically turbulent. Real gdp growth was 5.7% In 2023 and slowed to 3.9% In 2024, partly because of inflationary pressure (african development bank, 2025). Inflation peaked above 50% in late 2023 before falling sharply as monetary policy tightened (generalitat de catalunya trade portal, citing world bank data). The authorities rebased the national accounts to a 2018 base year in July 2024 (awoko, 2024). The world bank projected growth of 4.3% For 2025 and 4.6% By 2027 (world bank, 2025a), and its country economic memorandum argues that high public debt and a struggling private sector constrain growth (premier media, 2025d). Any estimate of the lcp effect must therefore be set against a period of common shocks, including the 2020 pandemic contraction and the 2022–2023 inflation surge, which is why the empirical strategy in section 4 removes year-specific effects shared by all sectors.

III. LITERATURE REVIEW, THEORY AND HYPOTHESES

1. Why local content might raise growth

The case for local content begins with linkages. Hirschman (1958) argued that investment in one activity creates incentives for investment in others, through backward linkages to input suppliers and forward linkages to users of the output. Extractive and capital-intensive sectors are often thought to generate weak linkages, because inputs are imported and processing happens abroad. Local content policies are a deliberate attempt to build backward linkages by obliging or inducing producers to buy locally (ramdoo, 2016; morris, kaplinsky and kaplan, 2012). A critical review of local content policy theory in mining questions how far these policies rest on tested evidence about how linkages actually develop (weldegiorgis, dietsche and franks, 2021).

Two further arguments sit alongside linkages. The first is about learning and externalities. If foreign investors generate knowledge spillovers that local firms cannot capture on their own, a policy that increases local participation can act like a subsidy for activities with positive externalities, and a well-designed requirement can be understood in these terms (macatangay, 2016). This is close to the modern case for industrial policy, which treats government and business as partners in discovering where capabilities can be built (rodrik, 2008). The second is about endogenous growth. If local capability accumulation raises the stock of ideas, skills and specialised inputs available to firms, it can raise the long-run growth rate rather than just the level of output (romer, 1990). On these arguments, stronger implementation should raise sectoral growth, with the effect building over time as suppliers learn.

2. Why it might not

The same literature gives several reasons for doubt. Local content requirements are distortionary because they favour local actors over potentially cheaper or better suppliers, and international trade and investment rules have progressively disciplined their use, although developing countries retain considerable policy space (ramdoo, 2016). An oecd review of ten mineral-rich countries found no one-size-fits-all policy mix and warned against overly prescriptive mandatory requirements (korinek and ramdoo, 2017). Theoretical work cautions that requirements risk infantilising local suppliers if they are shielded from competition, and that governments face an information disadvantage in setting them (macatangay, 2016). A world bank review of oil and gas local content policies reports mixed results from their application in petroleum-rich countries (tordo et al., 2013).

Political economy matters as well. In case studies of gold mining in the democratic republic of congo and ghana, geenen (2019) challenges the assumption that linkages will follow once an enabling environment exists, and shows how local content rules can be turned into clientelism and co-optation in the award of contracts and jobs (geenen, 2019). If implementation indices measure the volume of paperwork or negotiated agreements rather than real changes in sourcing and hiring, they may rise without any effect on output.

3. Evidence from Nigeria and other oil and gas producers

Nigeria is the best-documented case. Adewuyi and oyejide (2012) examined the determinants of backward linkages between the oil and gas industry and the rest of the nigerian economy (adewuyi and oyejide, 2012). More recently, adedeji, lawan and sidique (2017) tested the validity of the indicators used to measure local content policy in nigeria's oil sector with a four-factor measurement model. They conclude that the policy can reach its developmental targets on local firm participation, backward linkages and job creation, that governments should emphasise implementation and compliance rather than the labour clause, and that governments should be aware of the trade-offs involved (adedeji, lawan and sidique, 2017). A qualitative appraisal of the nigerian content act reports little involvement of local firms in the oil and other industries and a high level of non-compliance by some multinationals (okoro and ndukwe, 2020). Taken together, this body of work suggests that results depend on enforcement and on the capacity of local firms, and that many studies measure outputs of the policy, such as participation and compliance, rather than growth outcomes.

4. The gap and the hypotheses

Two gaps follow. First, most quantitative evidence concerns a single sector in a single country, while sierra leone's act cuts across sectors. Second, evidence linking local content to



growth outcomes, as opposed to compliance or participation, is scarce. This study addresses both gaps by relating a composite implementation index and its components to sectoral output growth. The theory and the literature suggest four testable hypotheses.

- H1. Stronger lcp implementation is associated with higher sectoral output growth (linkages, learning and endogenous growth).
- H2. The association is carried mainly by local firm participation, because supplier and firm capacity is the channel through which linkages and learning operate, while procurement and employment shares may reflect compliance paperwork (geenen, 2019; adedeji et al., 2017).
- H3. The association is stronger in extractive sectors (mining and energy), where the case for backward

linkages is most prominent (hirschman, 1958; ramdoo, 2016).

- H4. The effect is delayed rather than contemporaneous, because supplier capabilities take time to build (romer, 1990; rodrik, 2008).

5. Data and empirical strategy

1. Data

The analysis uses a balanced sector-year panel for sierra leone covering 2015–2025 and six sectors: mining, construction, agriculture, manufacturing, tourism and energy. This gives 66 observations with no missing values. Table 2 defines the variables, and table a1 in the appendix gives descriptive statistics.

Table 2. Variable definitions

Variable	Definition	Role
Output growth	Annual sectoral output growth, %	Dependent variable
Value-added index	Sectoral value-added index, 2015 = 100	Alternative dependent variable (used in logs)
LCP index	Composite LCP implementation index, 0–100; higher means stronger implementation	Main explanatory variable
Local procurement	Local procurement share, %	Alternative LCP measure
Local employment	Local employment share, %	Alternative LCP measure
Local firm participation	Local firm participation, %	Alternative LCP measure
Investment	Sector investment, % of sector output	Control
Exports	Sector exports, % of sector output	Control
Inflation	Inflation rate, %	Control

Over the period the mean lcp index rose from 30.5 In 2015 to 44.8 In 2025 across sectors, and the mean value-added index rose from 100.2 To 146.1, An average annual rise of about 3.9% Per sector. Mean sectoral output growth was 3.5% Overall, with a contraction of 3.1% In 2020 and a rebound of 6.7% In 2021. Agriculture and tourism have the highest average lcp index (47.6 And 43.1) And mining and energy the lowest (29.7 And 29.5).

7. Data quality and consistency checks

Before estimation we checked the panel for internal consistency, and two features need to be flagged because they affect interpretation.

1. The two output measures disagree. The growth rate implied by year-to-year changes in the value-added index has a correlation of -0.22 With the reported output growthrate. In 2020 the reported mean growth rate is -3.1% , Yet the value-added index rises in every sector. The two series therefore cannot both be read as measuring the same concept, and we report results for each separately. Reported output

growth is the primary outcome because it is the dependent variable specified for the study.

2. Inflation varies across sectors within a year. Inflation is described as a national variable, but the values differ across sectors within each year, by up to about six percentage points in 2016. The annual cross-sector mean tracks the known national path, including a peak of about 47% in 2023. We treat the variable as a sector-year price-pressure control and rely on year fixed effects to absorb the common national component. The composite index is taken as provided. The data file does not document how its components were weighted or which institutions supplied them, so the index cannot be independently rebuilt. Section 7 returns to this limitation.

8. Empirical model

The baseline specification is a two-way fixed-effects panel model for sector I In year T :

$$\text{Growth}(I,t) = B_0 + \beta_1 \text{lcp}(I,t) + B_2 \text{investment}(I,t) + B_3 \text{exports}(I,t) + B_4 \text{inflation}(I,t) + M(I) + \Lambda(t) + \varepsilon(I,t)$$



Where $\mu(i)$ are sector fixed effects that remove time-invariant differences between sectors, such as natural endowments, and $\lambda(t)$ are year fixed effects that remove shocks common to all sectors, such as the pandemic, exchange-rate movements and the 2022–2023 inflation surge. The coefficient of interest, β_1 , is the change in percentage points of output growth associated with a one-point rise in the lcp index within the same sector and year, net of those effects. The hypotheses map to the model as follows: h1 is $\beta_1 > 0$; h2 compares the three components of the index; h3 adds an interaction between lcp and an extractive-sector indicator (mining and energy); and h4 replaces lcp with its one-year lag and with its first difference.

We also report a sequence of simpler models (pooled, sector effects only, year effects only) to show how the estimate changes as the sources of confounding are removed, and models with the log value-added index as the outcome.

9. Inference with few clusters

With six sectors, conventional cluster-robust standard errors are unreliable (cameron, gelbach and miller, 2008). For the main coefficient we therefore report three p-values: heteroskedasticity-robust (hc1), the small-sample hc3 variant (mackinnon and white, 1985), and a wild cluster bootstrap-t clustered by sector, with the null imposed, the six-point weights recommended for few clusters (webb, 2014), and 4,999 replications. Controls are estimated but not interpreted causally. Variance inflation factors for the baseline within-transformed regressors are all below 1.2, So multicollinearity is not a concern.

10. Identification

Fixed effects remove stable sector characteristics and common annual shocks, but not sector-specific shocks that move both the lcp index and growth in the same year. Reverse causation is also plausible: faster-growing sectors may attract more compliance activity, or enforcement effort may be concentrated where the economy is expanding. For these reasons, estimates are interpreted as conditional associations, and the lag and first-difference models are used as partial checks on timing.

11. Results

Baseline estimates

Table 3 shows how the estimated lcp coefficient changes as confounding is removed. In the pooled model and in the models with only sector or only year effects, the coefficient is small and statistically indistinguishable from zero. Once sector and year effects are both included (model 4), the coefficient rises to 0.198 And is significant under all three inference methods. A one-point rise in the lcp index within a sector, relative to what other sectors experienced in the

same year, is associated with 0.20 Percentage points higher output growth. The two-way within variation in the index is modest (standard deviation 2.2 Points), so a one-standard-deviation difference corresponds to about 0.44 Percentage points of growth. A ten-point rise, which is close to the average within-sector increase in the index over the decade, corresponds to about two percentage points. The controls are individually insignificant.

Table 3. Baseline models: dependent variable is sectoral output growth (%)

	(1) Pooled	(2) Sector FE	(3) Year FE	(4) Two- way FE
LCP index	0.022 (0.037)	0.123 (0.076)	0.023 (0.051)	0.198 (0.071)
Investment (% of output)	-0.084 (0.149)	-0.110 (0.159)	-0.126 (0.102)	-0.116 (0.093)
Exports (% of output)	0.068 (0.074)	-0.050 (0.106)	0.109 (0.077)	0.067 (0.070)
Inflation (%)	0.003 (0.029)	-0.021 (0.031)	not included	-0.075 (0.128)
p-value, HC1	0.557	0.112	0.661	0.007
p-value, HC3	0.572	0.141	0.707	0.028
p-value, wild cluster bootstrap	0.594	0.144	0.716	0.013
Sector effects	No	Yes	No	Yes
Year effects	No	No	Yes	Yes
R-squared	0.011	0.093	0.744	0.820
Observations	66	66	66	66

Notes: Hc1 robust standard errors in parentheses. Inflation is omitted from model 3 because year effects absorb its common component. The wild cluster bootstrap uses six sector clusters, webb weights, the null imposed and 4,999 replications. Bold marks the Coefficient of interest in the baseline model.

The pattern in table 3 is informative. The positive association is not visible in raw cross-sector comparisons, because the sectors with the highest lcp index, such as agriculture, are not the fastest growing. It appears only when the model compares each sector with its own average and with the common annual shocks. This is what one would expect if the policy effect is real but small relative to sector and year differences, but it is also what one would expect if a small number of observations drive the within-sector, within-year variation. The robustness checks in table 4 speak to this.

13. Robustness, timing and the alternative outcome

Table 4. Robustness: lcp coefficient under alternative specifications (two-way fixed effects unless stated)



Specification	Coefficient	Std. error	p (HC 1)	p (HC 3)	p (bootstrap)	N
Baseline (growth, LCP)	0.198	0.071	0.007	0.028	0.013	66
Excluding 2020	0.159	0.063	0.015	0.050	0.011	60
LCP lagged one year	-0.110	0.087	0.213	0.320	0.240	60
First difference of LCP	0.128	0.056	0.027	0.086	0.053	60
Log value-added index as outcome	0.0007	0.0011	0.505	0.580	0.499	66
Log value-added index, sector effects only	0.0166	0.0015	<0.001	<0.001	0.004	66
Growth of value-added index (×100) as outcome	-0.049	0.205	0.812	0.850	0.621	60

Notes: models include investment, exports and inflation. The lagged and first-difference models lose the 2015 observation for each sector, and the 2020 exclusion removes six observations.

Three results stand out. First, removing the pandemic year leaves the estimate positive and significant (0.159), So 2020 does not drive the finding. Second, the association is contemporaneous: with the index lagged by one year the coefficient turns negative and insignificant, which does not support the idea that effects build up with a delay. The first-difference model, in which year-on-year changes in the index are related to growth, gives a positive estimate of 0.128, Significant at conventional levels but borderline under the bootstrap. Third, the result does not carry over to the value-added index. When the log index is the outcome and year effects are included, the coefficient is essentially zero. When year effects are dropped the coefficient is large and highly significant (1.7% Higher value added per index point), but that estimate simply reflects the fact that both the index and

value added trend upward in every sector: the within-sector correlation between the two is 0.89. A common trend is not evidence of a policy effect, and once it is removed by the year effects nothing remains. Given the disagreement between the two output measures noted in section 4.2, The value-added results should be read as a warning that the growth finding depends on how output is measured.

14. Which part of local content matters?

Table 5. Components of the lcp index (two-way fixed effects; dependent variable is output growth)

	Each component separately			All three together	
Component	Coefficient (SE)	p (HC 1)	p (bootstrap)	Coefficient (SE)	p (HC 1)
Local procurement share	-0.014 (0.032)	0.654	0.220	-0.024 (0.030)	0.438
Local employment share	0.011 (0.046)	0.811	0.833	0.007 (0.050)	0.883
Local firm participation	0.072 (0.040)	0.075	0.037	0.079 (0.039)	0.051

Notes: Each row in the left block is a separate regression that includes investment, exports and inflation. The right block enters the three components in one regression with the same controls ($n = 66$ in all cases).

Local firm participation is the only component with a positive association with growth: 0.07 To 0.08 Percentage points per percentage point of participation. It is borderline under conventional errors ($p = 0.075$ Alone, 0.051 Jointly) and significant under the bootstrap when entered alone ($p = 0.037$). Local procurement and local employment shares show no association. This supports h2 weakly. It is consistent with the view that building a base of local firms is the channel that matters, and with the nigerian finding that compliance with labour and procurement clauses is a weaker route to value creation than firm participation and linkages (adedeji, lawan and sidique, 2017).



15. Heterogeneity across sectors

Adding an interaction between the lcp index and an indicator for the extractive sectors (mining and energy) gives a main lcp effect of 0.206 ($P = 0.014$) And an interaction of -0.017 ($P = 0.806$). The association is therefore statistically the same in extractive and non-extractive sectors, and h3 is not supported. Sector-by-sector regressions of growth on the index (table 6) have only

eleven observations each and give imprecise, mixed-sign slopes: positive and largest in agriculture, close to zero in mining and negative in tourism, none of them significant. These regressions are descriptive only. They do show that the pooled estimate is an average of weakly identified sector patterns, not the result of one dominant sector.

Table 6. Sector-specific slopes of output growth on the LCP index (11 observations each)

Sector	Slope	p-value
Agriculture	0.281	0.133
Manufacturing	0.155	0.538
Energy	0.113	0.419
Construction	0.057	0.589
Mining	-0.018	0.941
Tourism	-0.139	0.302

Notes: bivariate regressions with no controls or time effects.

16. Summary of hypothesis tests

Hypothesis	Verdict	Evidence
H1: LCP raises sectoral growth	Partly supported	Positive in the two-way fixed-effects model (0.198, bootstrap $p = 0.013$) but absent in pooled, sector-only and year-only models and in the value-added outcome
H2: Firm participation carries the effect	Weakly supported	0.072 (bootstrap $p = 0.037$); procurement and employment insignificant
H3: Stronger in extractive sectors	Not supported	Interaction -0.017 ($p = 0.806$)
H4: Effect is delayed	Not supported	Lagged coefficient -0.110 ($p = 0.213$)

IV. DISCUSSION

A positive but fragile association. The central result is a positive within-sector association between lcp implementation and output growth that survives exclusion of the pandemic year and small-sample inference, but disappears when the index is lagged and when output is measured by the value-added index. This is the pattern one would see if stronger implementation coincides with, or responds to, favourable sector conditions in the same year. It is also the pattern one would see if local content raises activity quickly, for example through a faster flow of local contracts, and the effect fades. The data cannot distinguish these readings. What they do rule out is the stronger claim, that implementation has built lasting supplier capability that compounds into faster growth, because a cumulative effect would show up with a lag and in the level of value added.

Why firm participation. The component results point to local firm participation. This fits the linkage and learning arguments (hirschman, 1958; macatangay, 2016): what matters is whether local firms are actually in the supply chain, not whether procurement or employment quotas are met on paper. It also echoes the nigerian evidence that policy

design should emphasise implementation and compliance on firm participation rather than the labour clause (adedeji, lawan and sidique, 2017). The null findings for procurement and employment shares are consistent with geenen's (2019) warning that headline local content numbers can be produced through contracting and hiring practices that do not build durable capacity (geenen, 2019). We caution that these component estimates are only borderline significant and should be treated as leads for future research.

No extractive premium. The absence of a stronger association in mining and energy runs against the prominence of the linkage argument in extractive industries (ramdoo, 2016). One possible reason is that implementation in mining relies on negotiated company-level agreements, several of which were signed late in the sample (section 2.2) And could not yet affect growth. Another is that sierra leone's mining output is driven by commodity prices and export volumes, which dominate any local content effect. The result is a reminder that the policy's reach is broader than the sectors where it is most debated.

Policy relevance despite the caveats. For policy makers, the findings support neither dismissing local content as ineffective nor treating it as a proven growth engine. They



are compatible with the cautious view in the oecd review that carefully designed measures can help while overly prescriptive mandatory requirements risk distortions (korinek and ramdoo, 2017). They also reinforce the agency's own acknowledgement that the act needs review to address grey areas and the practical difficulties of different business models (premier media, 2022; awoko, n.D.).

V. CONCLUSION

This paper provides a first sector-level quantitative assessment of sierra leone's local content policy and growth, using 66 sector-year observations for 2015–2025. Higher implementation is associated with higher contemporaneous sectoral output growth in the baseline two-way fixed-effects model, by about 0.2 Percentage points per index point, and the result holds when the pandemic year is dropped and when inference accounts for the small number of sectors. The association is not found with a one-year lag, not found with the value-added index, and not stronger in extractive sectors. Among index components, local firm participation is the most promising channel. The balance of evidence is therefore suggestive of a short-run association and not of a demonstrated, lasting causal effect on growth.

1. Policy implications

1. Prioritise Firm participation. Because local firm participation is the component most closely linked to growth, enforcement and support should focus on getting qualified sierra leonean firms into supply chains, through the joint qualification system, the online portal, supplier development and access to finance, rather than on counting procurement or employment shares alone.

2. Measure outcomes, not just compliance. The agency already collects local content plans, quarterly reports and scorecards. These should be linked to firm-level outcomes such as supplier turnover, survival, productivity and wages, so that future evaluations can use firm data and credible comparison groups.

3. Sequence And phase requirements. Evidence that growth effects do not accumulate argues for realistic, gradually tightened targets tied to supplier capability, in line with international advice against overly prescriptive mandates (korinek and ramdoo, 2017).

4. Use the Review of the act. The review announced in 2022 is an opportunity to build in monitoring and evaluation provisions, to publish the methodology behind the implementation index, and to address transparency risks in contract and job allocation that the political-economy literature highlights (geenen, 2019).

5. Protect the trade and investment climate. Requirements should stay within the policy space left by international trade

and investment rules and should be predictable for investors (ramdoo, 2016), particularly as the government seeks private-sector-led growth (world bank, 2025a).

2. Limitations and directions for further research

- Small sample. Six sectors and eleven years leave little statistical power. Wild cluster bootstrap p-values help but cannot fully remove this problem, and the results should be replicated with firm-level or district-level data.
- Identification. Fixed effects cannot rule out sector-specific shocks or reverse causation. An event-study design around firm-level agreements, or an instrument for enforcement intensity, would give stronger identification.
- Measurement. The composite index cannot be rebuilt from the information supplied, and its relationship to actual compliance is unknown. The two output measures are not mutually consistent, and the inflation control varies across sectors. Results should be confirmed against official national accounts and statistical releases, especially given the 2024 rebasing of gdp.
- Dynamics. Eleven annual observations limit the ability to model long lags. Longer series and dynamic panel methods would allow tests of cumulative effects.
- Outcomes. Growth is one outcome among several. Employment quality, wages, local firm survival and poverty, which are central to the stated aims of the act, are not examined here.

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