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June 3, 2026

Approved By
The African Department

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CONTENTS

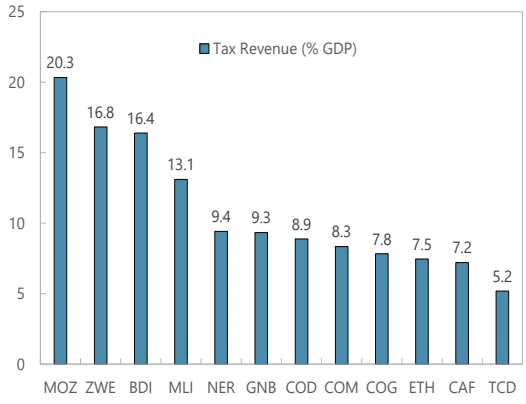
ENHANCING DOMESTIC REVENUE MOBILIZATION TO STRENGTHEN STATE CAPACITY

Burundi has made important progress in domestic revenue mobilization (DRM) relative to low-income African peers, but its tax system remains too narrow, complex, and volatile to support stronger state capacity and durable growth. This paper argues that tax performance should be benchmarked not only against fragile peers but also against EAC strong performers. Sustained improvements in tax collection are associated with stronger institutions and higher long-term growth, reinforcing the importance of a stable medium-term reform strategy rather than repeated annual tax changes. This paper highlights three central challenges to ramping up DRM: extensive and discretionary tax exemptions, weak VAT performance, and a large informal economy undermining the tax base and enforcement. Technological improvements like digitization, while helpful, are insufficient to translate modernization into higher compliance and revenue. Complementary reforms are needed in compliance risk management, use of third-party data, taxpayer services and tax policy design. A sequenced medium-term revenue strategy centered on simplifying the system, broadening the VAT base, lowering the threshold where appropriate, rationalizing exemptions, and strengthening administration and legal frameworks will support progress.

A. Context

1. Burundi's tax-to-GDP ratio and tax administration operational strength index (OSI) are higher than many comparable Low-Income Countries (LICs) in the African region. Burundi's 2022 tax to GDP ratio of 16.4 percent is surpassed by only Mozambique (20.3 percent) and Zimbabwe (16.8 percent) (Figure 1). In terms of the Tax Administration Operational Strength Indices (OSI) (see Adan et al. (2023), Atsebi et al. (2025)), Burundi's 2022 score 53.6 of is exceeded by only Zimbabwe (68) and Democratic Republic of Congo (57.5) (Figure 2).[1] This is based on Atsebi, Gueorguiev, and Nose (2025), who use a novel method and expert surveys to show that stronger tax administration significantly boosts tax revenue, especially in developing nations, by improving revenue collection and helping governments expand public finances. The paper quantifies

Text Figure 1. Tax Revenue in Select African Low-Income Countries (LICs) (2022)



Source: IMF World Revenue Longitudinal Database, , IMF Staff calculations

[1] Operational Strength Index (OSI) — Measures the strength of tax administration based on the constituent indices: Compliance Risk Management (CRM); Use of Third-Party Data (UTD); Degree of Digitalization (DIG); Service

(continued)

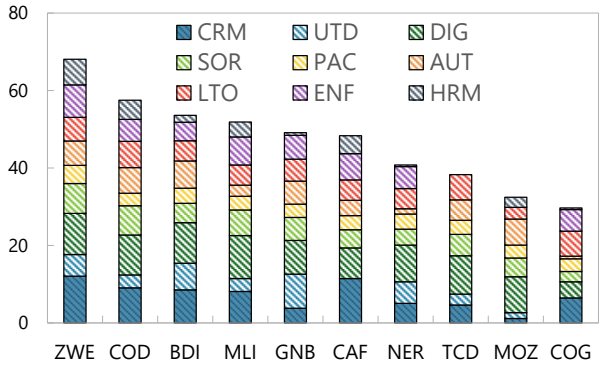
the causal impact of tax administration strength on tax revenue. It uses an "Operational Strength Index" from expert surveys (ISORA) and instrumental variables related to IMF capacity development programs. Stronger OSIs mean strengthened tax administration, increased revenue, with larger gains in emerging economies, less informal economies, and stronger institutional settings.

2. Burundi needs to benchmark its revenue performance against better performing African economies, including regional peers in EAC. These could be East African economies such as Kenya and Uganda, or francophone economies such as Senegal or Benin, all of which have undertaken comprehensive revenue reforms such as Medium-Term Revenue Strategy (MTRS) adoption. This aspirational approach needs to be viewed beyond the narrow focus of revenue raising abilities to a more comprehensive approach driven by a motivation to enhance state capacity. Such an approach would look at the overall performance of the tax system in terms of its ability to foster growth, reduce inequality, and earn the trust of citizens.

B. Importance of Sustained Tax Capacity

3. Tax capacity does more than fund government spending—it is linked to faster economic growth and stronger institutions. Effective tax collection allows the state to invest in public services and improve institutions. A fair and simple tax system also builds public trust, supports better financial management, and encourages innovation across government, strengthening the social contract between citizens and the state (Besley and Persson, 2011). The foundation of future revenue reforms should therefore focus on both enhancing revenue and strengthening the social contract between citizens and the state. De Mooij, et al, 2025 citing Schumpeter state that: "that the modern state is fundamentally a "tax state": taxation both defines and enables the state, making it the primary source of state capacity. … The state derives revenues from private economic activity, thereby sharing in national prosperity, while the private sector benefits from the state's provision of essential public goods—ranging from security, property rights, and justice, to infrastructure, health, and education. Importantly, the state also plays a central role in financial development and stability. A broad-based and credible tax system underpins investor

Text Figure 2. Tax Administration Operational Strength Indices (OSI) in Select African Low-Income Countries (LICs) (2022)



Source: IMF Staff calculations. : See Adan et al. (2023), Atsebi et al. (2025) : (i) Compliance Risk Management (CRM); (ii) Use of Third-Party Data (UTD); (iii) Degree of Digitalization (DIG); (iv) Service Orientation (SOR); (v) Public Accountability (PAC); (vi) Autonomy (AUT); (vii) Large Taxpayers Office and High-Net-Worth Individuals (LTO and HNWI); (viii) Tax Enforcement (ENF); and (ix) Human Resources Management and Development (HRM).

Orientation (SOR); Public Accountability (PAC); Autonomy (AUT); Large Taxpayers Office & High-Net-Worth Individuals (LTO/HNWI); Enforcement (ENF); Human Resources Management & Development (HRM). See Atsebi et al. (2025) Appendix I: Enhancing Tax Capacity: Revenue Gains from Strengthening Tax Administration

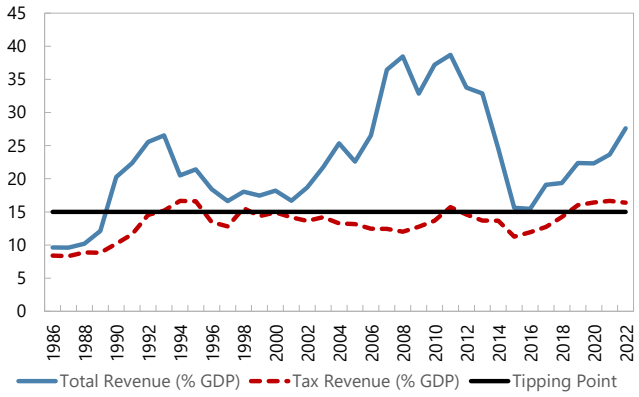
confidence in public debt, positioning the state as a guarantor of financial stability and development.

4. Recent IMF research indicates that countries achieving a sustained tax-to-GDP ratio of at least 15 percent foster stronger institutions and sustainable economic growth. Successful revenue mobilization depends on the seamless alignment of tax policy, tax legislation, and revenue administration—a concept widely recognized in tax literature as the "tax system approach." Building on this foundation, an MTRS provides a holistic pathway for reform (De Mooij, et al, 2025). The key insight is that only sustained and stable increases in tax capacity leads to durable economic benefits and a transition to higher growth. Temporary or unstable gains in tax capacity do not yield lasting improvements. The need for sustained long term revenue mobilization is therefore salient in Burundi not only due to the fiscal situation characterized by debt burdens, declining official development assistance and but also the need to strengthen state capacity and support citizens 'consent to taxation, essential to escape high levels of economic informality.

5. Burundi falls just short of sustaining the growth catalyzing 'tipping point' 15percent tax to GDP ratio consistently in the long run. Historically, its tax-to-GDP ratio breached the 15 percent level in 1994, 1995, 1998, and 2011 (Figure 3). Since 2019 the tax-to-GDP ratio has been hovering just above 15 percent. Bellon and Warwick (2025) distinguish between two types of countries after surpassing the tax-to-GDP "tipping point":

- "Long-haulers" continue to build tax capacity, raising their tax ratios from about 8percent of GDP to 13–16 percent within a decade. These countries experience sustained growth, with per capita income rising 16 percent higher than countries that never cross the threshold.
- "Bouncers" initially cross the tipping point but then slip back below it. Their tax ratios stagnate, and their growth outcomes are similar to those that never crossed the threshold. This seems to be Burundi's situation.

Text Figure 3. Total Revenue and Tax Revenue in Burundi 1986-2022



Source: IMF World Revenue Longitudinal Database (WoRLD), IMF Staff calculations

C. Historical Tax Reforms in Burundi

6. Burundi carried out some major reforms in terms of tax policy and tax administration in the early part of the new millennium. Major tax policy reforms included the 2009 introduction of VAT to replace the transaction tax and the 2013 new income tax law which simplified rates to 0 percent, 20 percent, and 30 percent for personal and corporate income tax, harmonizing with EAC standards. Other reforms included a new tax procedures law, investment incentives, and adoption of

EAC/COMESA tariffs. In 2009, creation of the Office Burundais des Recettes (OBR) to centralize tax and customs collection, supported by international partners as a modern semi-autonomous authority was an important step forward in terms of tax administration (Ndoricimpa, A., 2021).

7. Thereafter diverse tax policy reforms were introduced. Tax reforms noted in the 2022 IMF Article IV were: (i) an excise tax on cigarettes; and (ii) lump sum levies on some products (e.g., drinks) panned for 2022-2023 budget.[2] That budget also introduced a tax on financial activities (TAF) of 8 percent on net banking income (2022-2023); The next budget brough in a tax on online data services (18 percent of cost), consumption tax on notary and attorneys' fees (10 percent), hotel activity (5 percent), motor vehicles (7 percent to 17 percent); additional excise taxes on alcoholic and sugary drinks and tobacco; ad valorem tax of 1.5 percent on imported goods in addition to customs duties; and anti-pollution tax on imported vehicles more than 10 years old (2023-2024).

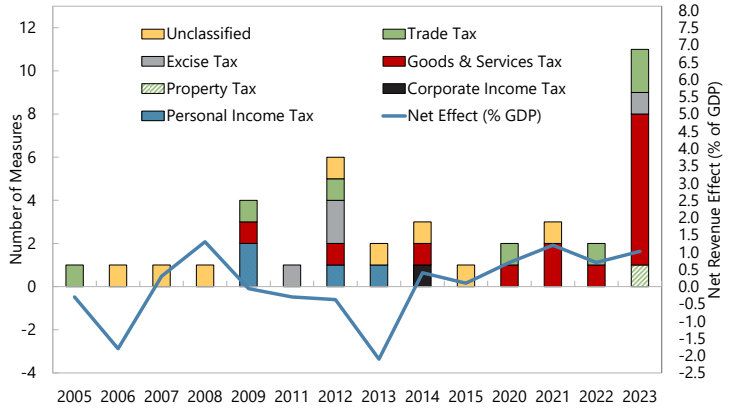
D. Tax Policy Complexity, Indirect Tax Reliance and Narrow Tax Base

8. Despite the reforms, or rather because of their recent sporadic nature, Burundi's tax system is complex, with a mix of general, sectoral, and international tax rules. Annual budget laws further expand and diversify the tax base, often prioritizing short-term revenue generation over systematic classification or long-term policy coherence (Figure 4). The General Tax Code (CGI) last official version comes from 2006 and the Customs Code dating from 2007. Burundi's tax system is also governed by a range of specific laws targeting different types of taxes: (a) Income Tax: Law No. 1/14 (December 24, 2020), (b) Value Added Tax (VAT): Law No. 1/02 (February 17, 2009), (c) Municipal Taxation: Law No. 1/02 (March 3, 2016). These are complemented by sector-specific codes (e.g., the Mining Code, updated in 2023) and legal texts for specific economic activities, such as telecommunications, which impose additional sectoral taxes and fees. Other important laws include: (a) Free Zone Law (2001); (b) Investment Code (revised in 2021) which grants tax and customs advantages as part of the country's broader tax policy. Burundi's fiscal policy is also shaped by international commitments: Membership in the East African Community (EAC), which uses a Common External Tariff (CET), bilateral double taxation treaties, Other bilateral treaties (especially those related to aid), International conventions with tax implications (e.g., Vienna, Chicago, Florence Agreements).

[2] Burundi: 2022 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Burundi in: IMF Staff Country Reports Volume 2022 Issue 257 (2022)

9. Each annual budget law introduces new taxes and exemptions, often with broad and varied tax bases. The primary aim of these taxes is to quickly increase government revenue. Examples from the 2023/2024 budget law include: (a) Consumption tax on notary and attorney fees (10 percent), hotel activity (5 percent), motor vehicles (7–17 percent); (b) Excise taxes on alcoholic/sugary drinks and tobacco; (c) Security royalty (1.15 percent) and ad valorem tax (1.5 percent) on imported goods; (d) Anti-pollution tax on vehicles over 10 years old; (e) Building tax (0.8–2 percent of construction estimate); (f) Additional tax and surtax (20 percent) on imported fabrics.

Text Figure 4. Tax Measures by Type and Net Revenue Effect (percent of GDP)



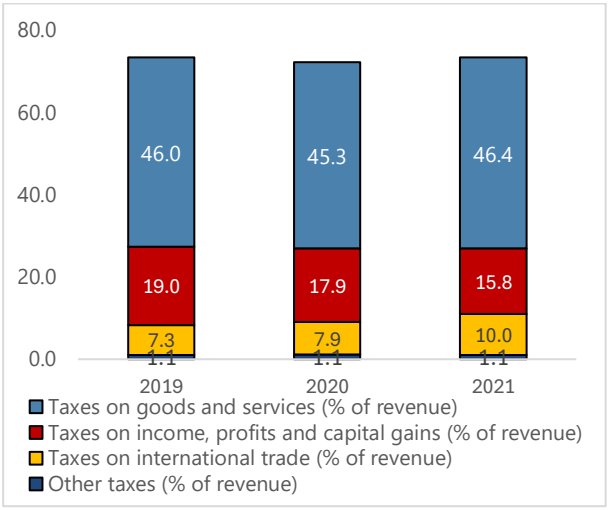
Source: IMF TAPRED, IMF Staff calculations

10. Longer duration analysis illustrates the sporadic and volatile nature of Burundi's tax policy changes over 2005–2023. In many years (2009, 2012, 2013, 2014), Burundi simultaneously enacted both revenue-raising and revenue-losing measures, reflecting the ad hoc character of annual budget law amendments.[3] The sharpest losses came in 2006 (−1.80 percent of GDP, unclassified) and 2013 (−2.20 percent of GDP, PIT-related), illustrating how single policy decisions can wipe out significant revenue. From 2020 onward, all measures are revenue-raising (+0.70 to +1.20 percent of GDP per year), concentrated in VAT/GST, Trade Taxes, and Unclassified categories — suggesting a recent push for domestic revenue mobilization but through multiple, layered instruments. The net effect swings from +1.30 percent of GDP (2008) to −2.20percent (2013), underscoring the lack of a coherent, stable tax policy trajectory. This effectively supports the argument that Burundi's tax reforms, while numerous, have been non-systematic, creating a layered, complex tax landscape that increases compliance costs and reduces policy predictability.

[3] Analysis based on Tax Policy Reform Database (TAPRED): A novel IMF dataset focused specifically on recording detailed tax policy measures, allowing analysis of when and how governments change tax laws.

11. Burundi's tax system also relies more on simpler indirect taxes when compared with more developed tax regimes in the region such as that of Kenya. Indirect taxes can be administered with lower capacity but tend to be more inequitable (Figures 5 and 6). Coupled with an extensive tax incentive regime, personal and corporate income tax loopholes, and non-taxability of dividends and capital income, this may be resulting in considerable shrinking of the effective tax base. The tax exemptions-based investment and industrial incentive regime also add complexity and create room for interpretation in the tax system, making it difficult to administer, comply with, and prone to legal avoidance and litigation.

Text Figure 5. Contributions of Major Taxes to Revenues in Burundi

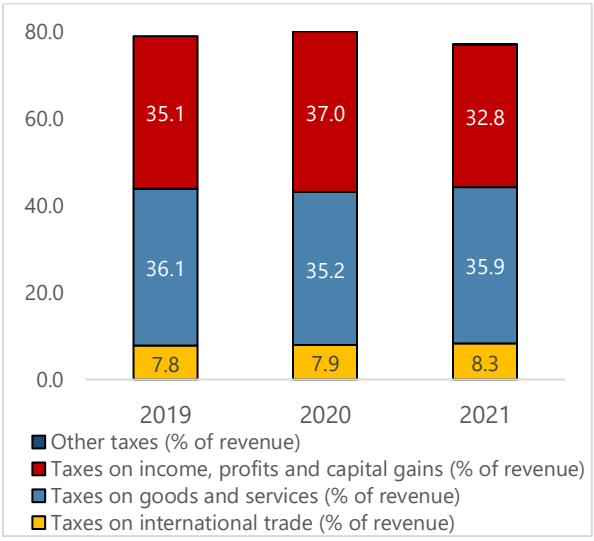


Source: IMF World Revenue Longitudinal Database (WoRLD), IMF Staff calculations

12. Burundi's tax system is also constricted in terms of both a narrow tax base and a shallow one. Direct taxes cover a narrow segment of taxpayers compared to their potential: for instance only 18 percent of wage earners are subject to the PIT given the very high exemption threshold. Wealthier households can avoid taxes through various means avoidance measures that exploit the available loopholes in tax system so effective rates are far lower than statutory rates.

(a) Personal Income Tax: The system is progressive in theory, but loopholes allow the rich to minimize their tax bills. Dividends and capital income are largely exempt from personal income tax under the investment code, enabling business owners to receive untaxed income. Meanwhile tax reduction adopted to support investment and generate employment are neither temporary, nor evaluated for their impact, so that losses of tax revenue cannot be measured against the economic benefits they were meant to generate.

Text Figure 6. Contributions of Major Taxes to Revenues in Kenya



Source: IMF World Revenue Longitudinal Database (WoRLD), IMF Staff calculations.

(b) Salary minimization: Wealthy individuals often declare low salaries (subject to lower tax rates) and receive most of their income through dividends or perquisites, which are not taxed as personal income.

(c) Corporate Structures: By channeling income through companies benefit and capital related payments as discussed above, business owners benefit from lower corporate tax rates and various exemptions, further reducing their tax liability.

(d) Legal Optimization: Sophisticated tax advisors exploit legal gaps, using deductions, exemptions, and ambiguous expense categories to minimize taxable income.

13. Offshore assets and international evasion further complicate compliance management and enforcement challenges for OBR. Many of Burundi's richest have diversified assets abroad (offshore accounts, foreign subsidiaries), making it difficult for the national tax authority (OBR) to track and tax these holdings. Burundi lacks international agreements and technical capacity for effective cross-border tax enforcement (Bazikwankana, 2025).

14. Burundi does not have a comprehensive accounting framework for tax expenditures, but estimates suggest that its discretionary tax exemptions are among the highest in Africa. In 2009, exemptions represented 21 percent of total government revenues, and in 2014, 18.3 percent (Ndoricimpa, 2021). A 2014 IMF mission estimated that tax expenditures (revenue losses from preferential tax treatments) were 1.45 percent of GDP in 2013: 0.64 percent for investment promotion and 0.81percent for household consumption.[4] The largest share of consumption-related tax expenditures came from exemptions on food imports (0.6 percent of GDP), which were removed in 2014. Customs exemptions (duties, VAT, excises) totaled 3.13 percent of GDP in 2013, but only a small portion (0.13 percent of GDP) were true tax expenditures.[5] The government's own accounts put tax expenditures at around 1.5 to 3 percent of GDP every year in recent years (2015-2025). But this does not cover all exemptions and mainly focuses on VAT on imports as reported by customs authorities.

15. The scale and discretionary nature of exemptions undermine Burundi's fiscal capacity, create opportunities for abuse, and reduce the effectiveness of tax reforms. Exemptions are granted for a wide range of reasons, including investment incentives, support for NGOs, and special treatment for dignitaries, but lack of oversight leads to substantial revenue losses. Some other exemptions are related to Burundi's obligations under international treaties (like exemptions on IFIs and UN agencies), thus near impossible to phase out, but those are assessed to represent about one

[4] A tax expenditure is a loss of government revenue resulting from preferential tax treatment, compared to a defined "normal" tax system. It must both reduce government revenue and deviate from the standard tax regime.

[5] Many customs exemptions, especially for VAT, do not actually reduce government revenue. For example, when companies under the investment code import goods and are exempted from VAT at customs, this does not count as a tax expenditure. Why? Because VAT is ultimately paid by the final consumer, and the company would have been able to deduct the VAT anyway. The exemption simply improves the company's cash flow, not the government's revenue.

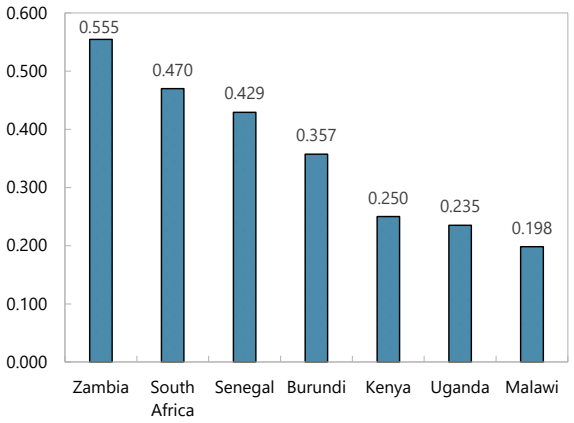
third of tax emptions overall. These exemptions tend to accrue to the politically and economically well-connected thereby shifting the remainder of the overall tax burden to the rest of society.

E. Tax Efficiency and Tax Gaps – Compliance and Policy Gaps in Burundi

16. The impact of tax expenditures and tax compliance challenges are reflected in Burundi's low VAT c-efficiency of 0.357 in 2021 which went down further to 0.341 in 2023. In comparison, Zambia, South Africa and Senegal perform better with 2021 VAT c-efficiency ratios of 0.555, 0.47 and 0.429, respectively (Figure 6).[6] Kenya (0.25) and Uganda (0.235) performed worse in 2021 largely due to substantial tax exemptions, but they have already embarked on major reforms including MTRS to address tax compliance and tax expenditure challenges which are discussed later (Figure 7).

17. The low VAT efficiency implies a VAT tax gap of around 0.643 in 2021 rising to 0.659 in 2023. Even the lower 2021 VAT gap amounts to around 11 percent of GDP. This is higher than the average of 8 percent in the case of seven Sub-Saharan African economies for which the IMF has carried out detailed tax gap analysis. [7] For Burundi, detailed tax gap analysis using top-down and bottom-up methods are needed to shed more light on this. But drawing on structural aspects from other African economies, the c-efficiency implied VAT gap likely translates in Burundi into a non-taxable policy gap of around 6-7 percent representing the gap arising from structural features of the economy such as substantial subsistence agriculture and informal sector output that fall outside the tax base and public sector output like health and education that is typically not subject to taxation. That would leave a tax expenditure policy gap cum compliance gap of about 4-5 percent of GDP in Burundi. The tax expenditure gap resulting mainly from discretionary tax measures like exemptions, reduced rates and declaration thresholds is the portion that tax policy should target

Text Figure 7. VAT C-Efficiency in Selected African Economies (2021)



Source: IMF Staff calculations

[6] VAT c-efficiency is the ratio of actual VAT revenue (*V*) to theoretical VAT revenue. The theoretical revenue is obtained from the product of aggregate final consumption (less actual VAT revenue) (*FC - V*) and VAT standard rate (*t*). *E=V/(t*(FC-V)*. A higher value indicates a more effective tax system.

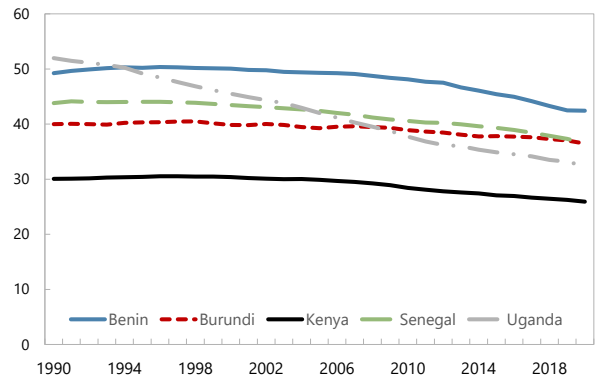
[7] The "tax gap" is interpreted as the share of potential VAT revenue not collected, i.e., tax gap = 1 – C-eff. A lower value indicates a more effective tax system. The tax gap has two components: the compliance gap and the policy gap (See Hutton, 2007). The Revenue Administration–Gap Analysis Program: Model and Methodology for Value-Added Tax Gap Estimation. The detailed tax gap analysis of the 7 African economies was carried out by IMF's Revenue Administration's Gap Assessment Program (RA-GAP) which is a systematic evaluation of a revenue administration's operations designed to assess their effectiveness in collecting taxes.

through judicious trimming of tax exemptions. The compliance gap is what the tax administration should ideally target and reduce.

F. Informality and the Shadow Economy

18. The large informal sector and shadow economy remain a major structural constraint on domestic revenue mobilization (DRM). Definitions of the "shadow economy" vary widely, but it may generally be taken to describe a situation where businesses operating outside the tax system and registered businesses conceal transactions to avoid paying taxes or social security charges, or to avoid the costs associated with legislation on safe working conditions or protection of consumers' rights (Russell, 2010).[8] The shadow economy is also referred to as the informal, hidden, or underground economy. Most current definitions, however, do not approach the shadow economy from a viewpoint aligned with tax administration and compliance requirements. Tax administrations typically focus on the taxable informal economy, which comprises activities subject to tax laws but not reported or taxed. Pending agreement on a tax administration-specific definition, we recognize that persons or activities not subject to taxation including non-market home production (non-monetary sectors like self-consumption of subsistence agricultural output) should not be the focus of a tax compliance approach to shadow economy in Burundi.

Text Figure 8. Informal Economy in Selected African Economies
(percent of GDP)



Source: World Bank Informal Economy Database: Elgin, Kose, Ohnsorge, and Yu. 2021, IMF Staff calculations

19. Comparing the estimated trajectory of Burundi's informal economy with that of Kenya, Uganda, Senegal and Benin show that much needs to be done in this area. In 1990, all countries other than Kenya had informal economies that were a larger proportion of GDP than Burundi. However, by 2020, all expect Benin had the same or lower informal economy proportion of GDP as Burundi's 36.5 percent of GDP (Kenya (25.9), Uganda (32.4), Senegal (36.5) and Benin (42.4)). In fact, all succeeded in formalizing their economies at a faster rate than Burundi's rate of 8.8 percent across the period. Uganda was the best performer with a decrease of 37.7 percent followed by Senegal (16.7 percent), Kenya and Benin (both 13.8 percent). Notably all these countries undertook tax reforms with Uganda being an early MTRS adopter. For effective DRM progressive

[8] Various definitions and terms are used to describe the phenomena based on context, country and institution. "Non-Observed" is more commonly associated with statistical analysis. "Informal" may be a more common term in tax policy and labor market discussions. "Cash", "Hidden" or "Shadow" may be more common in tax administration discussions. "Black", "Grey" or "Shadow" are more commonly used in political economy discussions. See Medina and Schneider, F. 2019; Elgin, Kose, Ohnsorge, and Yu. 2021. The 2025 System of National Accounts (2025 SNA) defines the informal economy as all informal productive activities, i.e., all production conducted by persons or economic units that—by law or by practice—are not covered by formal arrangements.

transformation and formalization of the informal sector supported by facilitative tax policy and administration reforms are needed to encourage voluntary compliance.

20. The large informal sector is also not merely a tax policy or tax administration issue but highlights macro-structural imbalances and developmental impediments. A misaligned exchange rate, low electricity and mobile penetration, inadequate electronic payments infrastructure, poor infrastructure (roads) and low financial inclusion contribute to a pervasive cash-based shadow economy. Moreover, large portions of the population are engaged in subsistence agriculture or small-scale artisanal activities which are difficult to formalize due to relatively high costs of compliance and administration. The country therefore needs to embark on a 'whole of government' strategy to facilitate greater formalization. This could build on current state-led formalization efforts such as in the gold mining and coffee sectors or cooperative movements such as in the coffee sector. Greater electricity availability, better mobile penetration, improved electronic payments infrastructure, and greater financial inclusion would also help.

G. Tax Administration Diagnostics and Recent Tax Administration Efforts

21. On the tax administration front, the TADAT assessment provides a credible benchmark on which to base future reform priorities.[9] The TADAT assessment indicates that between 2018 and 2024, Burundi's tax system improved across about one-third of the indicators while maintaining its performance on the remaining two-thirds. The assessment highlights several strengths. Taxpayer information and rights are accessible and tailored to key groups, and the call center performs well, meeting international responsiveness standards. Core collection mechanisms—such as withholding and advance payments—function efficiently, supported by established e-filing and e-payment systems. The audit program is comprehensive, covering all major taxes and taxpayer segments, and a structured framework exists for both administrative and judicial dispute resolution. Institutional integrity is reinforced by independent internal audit and internal affairs units with adequate investigative powers, and transparency is supported through the timely publication of annual reports and strategic plans.

22. At the same time, the assessment identifies important weaknesses that constrain performance. There is no effective integration between the registration system and declaration and payment modules, limiting data consistency and oversight. Monitoring of inactive taxpayers and non-filers remains weak, and there is no structured framework for identifying, prioritizing, and mitigating compliance risks. Risk management is narrowly focused on IT risks, with limited attention to human capital risks. The absence of an automated system for large-scale third-party data matching further hampers compliance efforts. Audit quality assurance and performance monitoring are sporadic, and there is no systematic analysis of tax gaps arising from inaccurate declarations. Tax arrears management is ineffective, and the VAT refund system suffers from significant delays. In

[9] TADAT is an integrated monitoring framework that measures performance of a country's tax administration at a point in time. This framework is focused on the 9 key performance outcome areas (POAs) that cover most tax administration functions processes and institutions. Trained assessors apply a standardized methodology guided by the TADAT Assessor Field Guide, while the TADAT Secretariat ensures quality and consistency by reviewing all performance assessment reports. https://www.tadat.org/

addition, revenue accounting is not integrated with the Ministry of Finance and remains largely manual, while the ombudsman plays no active role in reviewing taxpayer complaints.

23. Burundi has recently taken important steps to modernize its tax administration, notably through the launch of the e-KORI project. This aims to digitalize the integrated management of fiscal and non-fiscal revenues at the OBR. The project directly responds to weaknesses identified in the 2024 TADAT assessment and seeks to modernize, simplify, and automate core revenue administration processes. Its objectives include improving efficiency and transparency in revenue collection, facilitating taxpayer compliance, reducing fraud and administrative costs, strengthening accountability, and enhancing the quality and timeliness of revenue data to support policy decision-making.

24. The e-KORI system is designed to cover the entire revenue management chain. This encompasses taxpayer registration through assessment, collection, enforcement, dispute resolution, and performance monitoring. It integrates front-office and back-office functions across key areas, including VAT, non-tax revenues, payments, tax control, litigation, accounting, and reporting. The reform also aims to address long-standing institutional weaknesses highlighted by TADAT, such as limited tracking of non-filers, the absence of structured compliance risk management, ineffective large-scale data cross-checking, high tax arrears, delays in refunds, fragmented accounting systems, and ad hoc monitoring of control outcomes.

25. A key feature of the reform is the interconnection of OBR systems with external platforms. This would include customs (ASYCUDA), electronic billing, banking and payment systems, the central bank, public financial management systems, and other government databases, enabling stronger data sharing and cross-verification. The project is being implemented in phases across four major subsystems and is expected to be fully operational by mid-2027. Once completed, e-KORI is expected to significantly strengthen tax administration capacity, improve governance and transparency, and support more effective domestic revenue mobilization. Burundi has also deployed around 13,000 electronic VAT invoicing machines with a plan ramp up the total number later to 40,000.

H. Need for Bridge Measures and Compliance Risk Management (CRM)

26. Capacity development experience in peer countries show that tax administration reforms in fragile, conflict-affected, and informal settings have reached a plateau. While many countries have adopted formal structures—laws, organizational charts, IT systems, and standard reform tools—revenue performance remains weak because reforms have not adequately addressed informality, institutional fragility, political constraints, and organizational culture. Informality fundamentally undermines traditional tax principles based on fixed locations, declarative systems, and reliable data, while weak governance, patronage, and low trust limit the effectiveness of even technically sound reforms. As a result, the core challenge is no longer designing reforms but making existing ones function credibly and sustainably in highly constrained environments.

27. One response is to focus on "bridge measures", that is, pragmatic, intermediate solutions that work within current capacity and political realities. These include targeted (i) governance measures (asset declarations for staff, open recruitment for senior positions, selective outsourcing), (ii) organizational adaptations (risk-based headquarters services, low-connectivity e-service centers), (iii) dedicated approaches for individual taxpayers, and trust-building actions (public finance observatories, converting exemptions into targeted social transfers), and (iv) simplified VAT reforms aligned with MTRS principles. Rather than comprehensive overhauls, these measures aim to buttress credibility, contain governance challenges, and deliver visible gains that reinforce reform ownership.

28. Digitalization and risk management are also reframed as bridge processes rather than leaps to advanced systems. The focus shifts to continuous data-management flows, basic digital identification tools such as taxpayer cards, and a simplified risk framework centered on six observable compliance gaps—from registration to sincerity of declarations—usable even with weak data. Progress is tracked through structured self-assessment maturity matrices that emphasize incremental improvement instead of binary success or failure. Overall, the approach marks a deliberate shift from transplanting best practices to designing context-responsive reforms that prioritize trust, legitimacy, and traction over technical sophistication.

29. In Burundi, e-KORI is a necessary but not sufficient reform. While the system will digitalize the full revenue administration chain—from registration to payment, audit, and reporting—digitalization alone does not automatically improve compliance or revenue outcomes. International experience and the 2024 TADAT assessment both show that, without a systematic Compliance Risk Management (CRM) framework, an integrated IT system risks becoming a passive transaction-processing tool rather than an engine for compliance improvement.

30. The 2024 TADAT assessment highlights several long-standing weaknesses at the OBR that cannot be resolved by technology alone. Weak identification and monitoring of non-filers, absence of structured risk management, limited use of third-party data, ad-hoc audit selection, high arrears, and ineffective targeting of enforcement actions. e-KORI can generate large volumes of high-quality data, but CRM is what transforms data into intelligence—by systematically identifying, prioritizing, and treating the most significant compliance risks across registration, filing, reporting, and payment obligations. Without CRM, the additional data generated by e-KORI would not translate into better compliance outcomes.

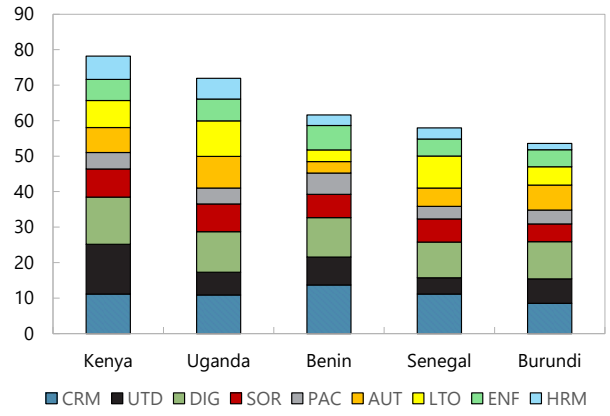
31. A systematic CRM approach would provide the strategic layer that would give meaning to e-KORI's functionalities. It ensures that audit, enforcement, service, and debt-management actions become routine activities, are risk-based, proportionate, and targeted at behaviors that pose the greatest threat to revenue. In the Burundian context—characterized by limited administrative capacity, a large informal sector, and high costs of enforcement—CRM is essential to allocate scarce resources efficiently, avoid indiscriminate controls that would reinforce perceptions of unfairness of the tax system, and focus on risks with the highest revenue and behavioral impact. This is particularly important as e-KORI expands data interfaces with customs, banks, electronic billing, vehicle registries, and other government systems.

32. Finally, CRM is critical to achieving the broader objectives of e-KORI: improving voluntary compliance, transparency, trust in the tax system and consent to taxation. International evidence shows that sustainable compliance gains arise when administrations move beyond purely reactive audits and adopt graduated, behavior-informed treatments—combining taxpayer service, nudges, third-party data, and credible enforcement. In Burundi, embedding a governance-driven, organization-wide CRM process—with clear leadership, defined responsibilities, and performance monitoring—will ensure that e-KORI supports a coherent compliance strategy rather than reinforcing fragmented or ad-hoc practices.

I. Potential Gains from Tax Administration Reforms

33. Benchmarking against regional reformers Senegal, Benin, Uganda and Kenya using ISORA data based OSI shows that Burundi's tax administration lags on several fronts. All these other countries implemented MTRS which will be discussed later. Compared to the leading tax administration in this group, namely Kenya, Burundi lags in terms of compliance risk management (CRM), service orientation (SOR), digitalization (DIG), and LTO (due to absence of an HNWI unit) (Figure 9). Key reforms in CRM, use of third party data, service orientation, digitalization, and a basic HNWI unit are essential in the medium-term. ISORA data for 2022 indicates that Burundi's administration already operates core e-filing/e-payment across CIT, PIT, and VAT and offers secure digital communications, mobile access, and some AI/APIs. Taxpayer rights are documented, dispute resolution pathways are available, service standards exist, and LTO functions cover processing, services, audit, and arrears. However, CRM relies minimally on automation and does not pre-fill returns; tax-gap estimation is absent beyond *ad hoc* analysis. Third-party data systems are patchy (limited ingestion/processing beyond customs and property), and pre-filled returns are not in use. Service orientation lacks multilingual access, disability accommodations, and a formal assistance strategy. Public accountability is constrained by limited publications and no external audit. Autonomy over budgets is partial (no operating discretion). HNWI management is not institutionalized. Many enforcement powers exist in law but are seldom applied. HR management lacks recruitment planning, capability assessments, succession, and gap-closure planning.

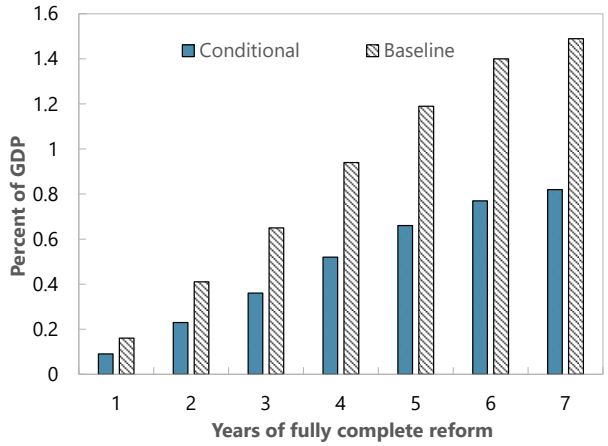
Text Figure 9. Benchmarking Burundi's Tax Administration Against Regional Reformers



Source: IMF Staff calculations: See Adan et al. (2023), Atsebi et al. (2025) : (i) Compliance Risk Management (CRM); (ii) Use of Third-Party Data (UTD); (iii) Degree of Digitalization (DIG); (iv) Service Orientation (SOR); (v) Public Accountability (PAC); (vi) Autonomy (AUT); (vii) Large Taxpayers Office and High-Net-Worth Individuals (LTO and HNWI); (viii) Tax Enforcement (ENF); and (ix) Human Resources Management and Development (HRM).

34. Reforms in CRM, use of third party data, service orientation, digitalization, and HNWI over a 7-year horizon could lead to Burundi achieve the level of Kenya leading to tax-to-GDP gains of 0.8-1.5 pp. Burundi needs to transition from basic digital services and manual risk management to a data-driven compliance model with automated checks, broader third-party data coverage, pre-filling, and proportionate sanctions. Service delivery and accountability can be improved through multilingual access, provisions for the differently abled, expanded self-service channels, regular business surveys, comprehensive publications, external audit, and VAT tax-gap reporting. Organizational capacity can be strengthened via operating budget autonomy, LTO registration, a new HNWI program, and HRM upgrades (recruitment, capability assessment, succession, and gap-closure planning). Simulating the likely revenue gains from such a reform program using the results from Adan et al. (2023) and Atsebi et al. (2025) show that by the fourth year of implementation about 0.5 pp. of GDP could be gained from tax administration reforms alone even in the most conservative estimate (Figure 10).[10] Robust analysis of tax administration reforms faces significant methodological challenges, including bias, measurement error, data limitations, and the complexity of reform environments. Results should be interpreted with caution and always contextualized for specific country circumstances. Caveats associated with the likely gains from reforms anticipated in this prognosis include the need for careful planning and sequencing, appropriate coordination, political support, management support and human resources.[11]

Text Figure 10. Potential Cumulative Revenue Yield Estimates from Tax Administration Reforms



Source: IMF Staff calculations: See Adan et al. (2023), Atsebi et al. (2025) : (i) Compliance Risk Management (CRM); (ii) Use of Third-Party Data (UTD); (iii) Degree of Digitalization (DIG); (iv) Service Orientation (SOR); (v) Public Accountability (PAC); (vi) Autonomy (AUT); (vii) Large Taxpayers Office and High-Net-Worth Individuals (LTO and HNWI); (viii) Tax Enforcement (ENF); and (ix) Human Resources Management and Development (HRM). The baseline point estimate of revenue yield is calculated as the minimum yield between the baseline regression and the income group-specific regressions. The conditional point estimate is calculated as the minimum yield across several regression specifications that incorporate the conditional effects of informality, financial development, and governance.

J. Conclusion: Aim for Coordinated Tax Administration and Policy Reforms

35. Staff recommendations on VAT policy reforms build on the conclusions of recent research that indicate that in low- and middle-income countries VAT may not be regressive. Jensen, Bachas, and Gadenne (2020) show that, contrary to conventional assumptions, a uniform

[10] Drawing upon the results of Atsebi et al. (2025) the simulated reform program: (a) upgrades to CRM. (b) UTD coverage expands. (c) Digitalization adds tools/calculators and a whole of taxpayer portal. (d) Service orientation strengthens via regular business surveys, with expanded registration channels (email/online/phone). (e) Public accountability increases through publishing operational plans, service standards, and adopting an external auditor with an administration specific code of conduct. (f) Autonomy improves by granting operating budget discretion. (g) LTO adds registration functions, and a dedicated HNWI program. (h) Enforcement powers are clarified. (i) HRM adds recruitment planning and a formal plan to close capability gaps.

[11] See Atsebi et al. (2025) sections VI and VII for robustness, sensitivity and caveats: Enhancing Tax Capacity: Revenue Gains from Strengthening Tax Administration

consumption tax like VAT can be progressive in developing countries once the role of informality is considered. Poorer households tend to buy a larger share of their goods from informal, untaxed vendors, while richer households shop more in the formal sector where VAT is applied. As a result, the effective VAT burden rises with income. Consequently, a broad-based VAT in low- and middle-income countries can reduce inequality.

36. Staff advise the country to prioritize tax policy reforms that: (i) broaden the base (including by lowering the VAT threshold) and (ii) rationalize exemptions. VAT is likely to remain the main stay of taxation in Burundi so in the short run it could be made more effective. Lowering the threshold would widen the tax base while trimming down exemptions can deepen the base by getting more revenue from existing taxpayers. The VAT exemption on essential food items can be removed and replaced by targeted social transfers for the poorest sections of society ensuring more targeted relief. Also, the case-by-case processing of VAT refunds should be replaced by a risk-based approach to speed up reform processing thereby encouraging voluntary VAT compliance. These reforms should be supported by tax administration modernization, notably wider use of VAT invoicing machines and rollout of e-KORI to strengthen compliance risk management. Then, over time, tax policy reforms could rebalance the tax mix toward direct taxes.

37. Sequencing tax reforms should begin with clear goal setting, simplification of tax policy, strengthening of tax administration, and capacity building. Not all reform measures can be implemented simultaneously. It is worthwhile to first attempt the highest priority items even though some may be difficult and the low hanging fruit. For instance, for tax administration, establishing an MTRS framework to set out a holistic, government-led roadmap for reform, integrating tax policy, administration, and legal changes is difficult but a high priority item (Table 1). Digitalization of tax administration is similar. CRM Upgrades, UTD expansion and VAT gap estimation are likely to be low hanging fruits that are high in priority but more easily implemented. They also provide a strong basis for further tax administration reforms. For tax policy, MTRS adoption remains important as it is for tax administration (Table 2). But reforming tax incentives is also a high priority difficult to implement item. Tax Policy Diagnostics and Tax Expenditure Assessment can be initiated more easily. Broadening the tax base and reducing reliance on indirect taxes can be commenced after the MTRS is set up though it is more difficult than tax law simplification. Each step should be supported by transparency, stakeholder engagement, and coordinated external support, with ongoing monitoring and adjustment.

Text Table 1. Tax Administration Reform Prioritization

	Priority-Low	**Priority-High**
Implementation-More Difficult	**Pre-filled returns** **Tax Gap reporting**	**MTRS adoption** **Digitalization of tax admin**
Implementation-Easier	**Multilingual services**	**CRM Upgrades** **UTD expansion** **VAT gap estimation**

Text Table 2. Tax Policy Reform Prioritization		
	Priority-Low	**Priority-High**
Implementation-More Difficult	Broaden the tax base and reduce reliance on indirect taxes	MTRS adoption Reform tax incentives
Implementation-Easier	Tax law simplification	Tax Policy Diagnostics Tax Expenditure Assessment

38. There is considerable scope of improvement in Burundi's tax system integrating tax policy, tax law and revenue administration through structured and systematic reform.[12] A well-planned and sequenced MTRS approach encompassing simplification of tax laws, addressing the tax incentive regime, and improving indirect taxes while diversifying more to income taxes may be the best way forward. The MTRS concept was introduced in a 2016 paper by the Platform for Collaboration on Tax (PCT) comprising the IMF, World Bank and OECD to the G20 Finance Ministers. Its core components include establishing a national consensus on revenue mobilization objectives, developing a comprehensive tax system reform plan, securing sustained domestic political commitment for implementation, and ensuring adequate support for capacity development to help the country address challenges in designing and executing the MTRS. The World Bank is currently assisting Burundi with its MTRS drafting process.

39. An MTRS is a high-level road map of the tax system reform over 4-6 years—its policy, administration, and legal components. It embodies a government's strategy to mobilize resources through a tax system that can finance its spending needs and secure macroeconomic sustainability, while reflecting distributional considerations and creating appropriate incentives for economic and social development. An MTRS is ideally a public document, since wide consultation with the tax system's stakeholders is desirable in its development, including promoting accountability of all concerned. An MTRS thus becomes a government-led and country-owned effort, supported at the highest political level—critical, given the broad reach of the tax system. It enables governments to have a clearer picture of their likely revenues over a meaningful planning period, and taxpayers to have more certainty on how they will be treated. Commitment to reforms over the medium- term can help prioritize intermediate objectives. Institution building in tax administration needs sustained effort over several years and the legal framework requires timely change to support evolving policy and administration. Successful reform requires continued commitment and trust among a wide

[12] There have not been any major tax policy CD engagements with Burundi in recent years. A 2008 mission "Burundi – Toward a Tax System for Regional Integration" provided a comprehensive roadmap for Burundi to modernize its tax system, align with regional standards, and support investment and growth, while maintaining fiscal sustainability and administrative simplicity. A 2014 mission reviewed the excise tax regime and estimated tax expenditures in Burundi. The mission aimed to provide recommendations for improving tax policy and administration, especially in the context of deeper regional integration within the East African Community (EAC).

range of stakeholders. Senegal, Benin and EAC countries such as Uganda, Rwanda and Kenya are at various stages of MTRS adoption.[13]

[13] https://www.tax-platform.org/mtrs-country/detail/586
https://www.treasury.go.ke/wp-content/uploads/2023/09/Draft-MTRS-Final.pdf

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Annex I. Key Elements of a Medium-Term Revenue Strategy (MTRS)

MTRS is a holistic approach to tax system reform, integrating spending needs, comprehensive reform planning, sustained political commitment, and coordinated external support. *Its success depends on inclusivity, strong governance, and alignment of all stakeholders—domestic and external—behind a unified national strategy. MTRS has four components:*

1. Set revenue and other goals: The first component focuses on identifying the spending required to support economic and social development. This process must be government-led but also inclusive, involving parliament, civil society, and the broader taxpaying community. Building broad consensus is essential to overcome political economy challenges and to ensure commitment to a substantial, well-designed tax reform roadmap. The MTRS links closely to the Sustainable Development Goals (SDGs), as it considers the financing needs for priorities like infrastructure, health, and education. In low-income countries, these needs can be as high as 20percent of GDP by 2030. The central idea is that tax capacity is fundamental for economic development and for achieving inclusive growth.

2. Comprehensive tax system reform: The second component is the creation of a holistic roadmap for tax system reform, covering tax policy, revenue administration, and the legal framework. This comprehensive approach is necessary because the effectiveness of the tax system depends on the interplay between policy, administration, and law. The reform plan should aim to mobilize the required revenues over the medium to long term, while also supporting economic and social development. A common challenge is the tendency to address urgent revenue needs with piecemeal measures, rather than following a holistic, sustainable plan. Quantifying the impact of reforms, especially administrative and legal changes, can also be difficult.

3. Sustained political commitment: The third component emphasizes the need for sustained, visible government commitment to reform, expressed through concrete actions and a whole-of-government approach. Effective reform requires coordination across ministries and agencies, not just the revenue authority or finance ministry. For example, rationalizing tax expenditures or modernizing HR policies demands support from line ministries and civil service agencies. Strong governance arrangements are critical, with leadership ideally at the minister of finance level, to drive the reform and engage society. Transparency, accountability, and active stakeholder engagement are vital for building trust and ensuring voluntary compliance.

4. Coordinated CD support: The fourth component calls for coordinated external support for the government-led reform. The MTRS helps identify resource needs for the reform process itself. External partners should align their support with the government's strategy, avoiding fragmented or poorly sequenced assistance. Effective coordination among development partners is challenging but essential to avoid gaps and overlaps. The principle is clear: government leadership must guide all external support.

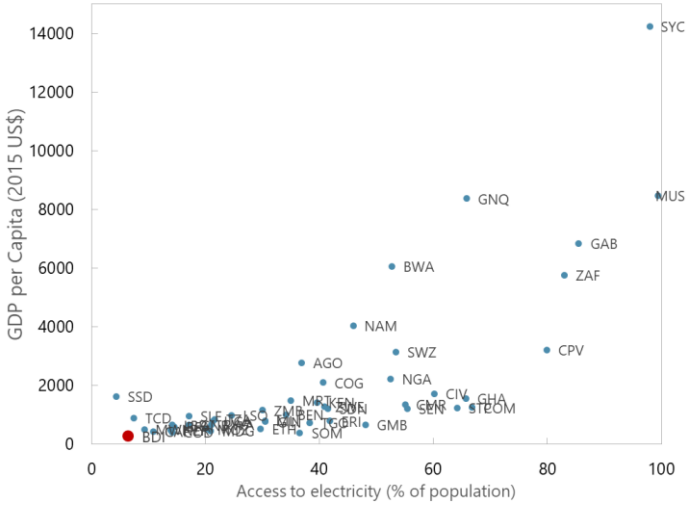
POWERING GROWTH IN AFRICA: ELECTRIFICATION, GROWTH, AND AGRICULTURAL PRODUCTIVITY IN BURUNDI

This paper examines how electrification affects economic growth in sub-Saharan Africa with a focus on Burundi, one of the least electrified countries in the world despite significant renewable energy potential and recent investment in power generation. Using cross-country data for 48 African countries from 2000 to 2022, the analysis finds that increased electricity access has a significant positive effect on GDP per capita growth, with the largest gains occurring in the poorest countries. The paper also shows that the impact of electrification depends importantly on the quality of electricity utilities: international financing leads to greater expansion in access where utilities are more efficient, financially viable, and better able to reduce losses, and review the crucial role of complementary policies (regulation, utility policy) to maximize economic gains from electrification.

A. Introduction

1. Burundi is one of the least electrified countries in sub-Saharan Africa, despite a large endowment in clean energy sources, including abundant water streams and a solar potential. In 2023, less than twelve percent of the population had access to electricity, the lowest rate in Africa, second only to South Sudan (Figure 1). In recent years the country has experienced large improvements in clean electricity generation (hydropower) and access. Between now and 2030, the country's production capacity is projected to triple, with most of the additional electricity generation sourced from hydro projects. The country has ambitious projects, hinged on the successful completion of electrification and transmission projects. They range from the installation of a new cement plant to the intensification and modernization of mining sites.

Text Figure 1. Access to Electricity and GDP per Capita in Sub-Saharan Africa



Source: World Development Indicators

2. Burundi's electricity sector is burdened by significant technical and non-technical losses. Technical losses primarily result from inadequate installed capacity and an aging transmission system, with low-voltage lines, insufficient rehabilitation funding, and poor investment in transmission and distribution networks being key contributors (Nsabimana, 2020). Non-technical

losses, on the other hand, are driven by unauthorized connections and institutional challenges such as weak governance, subsidies, political interference, power theft, and unpaid bills, especially within the public sector. These factors collectively undermine the efficiency and reliability of electricity supply in the country.

3. Low access to electricity in Burundi can be attributed to an affordability gap and structural challenges. The affordability gap is characterized by high connection charges, irregular income among customers, dispersion from the electrical grid, and minimum building standards. On the other hand, the structural gap is a result of low tariffs that are insufficient for cost recovery (Nsabimana, 2020).

4. While recent liberalization efforts have allowed more actors in generation and transmission, fossil fuel imports continue to strain national finances (Bamber, Guinn, & Gereffi, 2014). The 2014 paper studies the strength, weakness, opportunities, and threats to the electricity sector in Burundi (Box 1) and identifies strong domestic demand as a strength, with weaknesses including aging infrastructure and regulatory weaknesses, threats linked to foreign exchange shortages and hydropower variability partly due to rainfall seasonality, and opportunities in renewable energy diversification.

Box 1. Background: Production, Transmission, and Distribution of Electricity

In Burundi, the production, transmission and distribution of electricity are under the responsibility of the public utility company la REGIDESO (Régie de Production et de Distribution d'Eau et d'Électricité). Established in 1968, it currently operates under the authority of the Ministry of Energy and Mines Since its inception, there have been several attempts to reform the state-owned company. The Act of 2000 separated the water and electricity arms of the company. It also aimed to liberalize the generation and transmission responsibilities. However, due to a lack of clear implementation guidelines and the socio-political crisis in the late 90s and early 2000s, the act was never executed (Nsabimana, 2020). In 2015, a second Act was passed to reorganize and liberalize the electricity sector in Burundi. The act separated the electricity sector into generation, transmission, distribution, and retail. It also opened the generation to Independent Power Producers (IPPS) who currently generate 28.5 percent of the electricity in the energy mix (World Bank, 2025). However, the reform was not successful as the government did not allow the private sector to acquire REGIDESO share, thus allowing the state-owned company to remain vertically integrated.

Today, REGIDESO continues to face operational challenges, including weak operational and commercial performance with tariffs that are inadequate in face of the company's current cost structure. Other challenges include inadequate planning, unpaid bills from the public sector, lack of a regulatory environment that can attract investors, and poor access to foreign exchange reserves, required to import production goods. Still, the company is working towards proposed reforms that include the strengthening of regulation, the creation of a lucrative regulatory environment, the launch of new hydroelectric stations, the implementation of the national electrification strategy, and the implementation of a new tariffication regime, which accurately reflects costs and allows for the financial viability of the sector. Implementing key sectoral reform is key to ensure the successful impact of the proposed energy investments in the country. Sector reforms under Burundi's National Energy Compact (Mission 300) emphasize utility strengthening, improved financial viability, and more effective regulatory frameworks as key to expanding access and reliability. Support from development partners—including the World Bank and African Development Bank—is linked to large infrastructure projects like the Jiji and Mulembwe hydropower plant and transmission lines, with implementation involving REGIDESO as the executing utility. A successful reform of the country's utility company will be key in ensuring the successful meeting of Mission 300 objectives in Burundi.

5. Building the electricity grid presents an opportunity for local content generation. For example, the Rwandan Energy Access Program generated 17 jobs for every 10 km of 110 kV transmission line constructed. The African Development Bank (AfDB) has identified 260 km worth of transmission construction and upgrading projects (Bamber, Guinn, & Gereffi, 2014). However, given the substantial costs associated with building the grid, it is unlikely that it will expand to all towns in the short term. Rural communities may use alternative energy solutions until grid extension.

6. In view of the recent large investments in electricity generation, distribution, and transmission in Burundi, the Selected Issues Paper studies the subsequent impact on growth and agricultural development. After using cross country data to assess the impact of electrification on growth at the country level, we use spatial and temporal variation in hydropower plant construction to estimate the local effects of electrification. Using high-resolution satellite data on night-time lights from 2014 to 2024, we measure changes in economic activity following the launch of new power plants. The results show large and statistically significant increases in night-time luminosity in districts with new plants, implying substantial local GDP gains. Next, the paper examines agricultural outcomes using satellite-based vegetation indices (NDVI) and finds that electrification is associated with modest but significant improvements in agricultural productivity, consistent with increased irrigation, mechanization, and reduced reliance on biomass fuels. Finally, we use a computable general equilibrium model IMF-ENV to quantify the macroeconomic impacts of higher electricity supply and the impact on electricity prices, sectoral value-added and GDP, and discuss complementary policies to maximize economic gains from electrification.

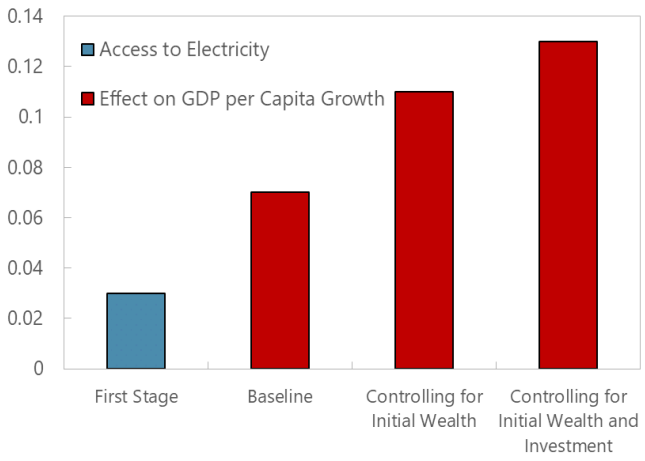
B. Electricity and Growth in Sub-Saharan Africa, Lessons for Burundi

7. This paper studies the impact of electrification on GDP growth and productivity in Burundi. While our paper focuses on Burundi, we also present findings on the relationship between growth and electrification in sub-Saharan Africa, using a sample of 48 countries and data from 2000 to 2022. Studying the relationship between electrification and economic growth faces a potential reverse causality problem: while access to electricity may promote growth, higher income may also drive increased electricity demand and infrastructure investment. In a 2019 paper, Stern, Burke, and Bruns cautioned that establishing a direct causal relationship between electrification and growth can be challenging due to reverse causality.

8. To address the potential endogeneity issue, we use external financing to SDG Goal 7 as an instrument for electrification. SDG Goal 7 aims to ensure access to energy for all, by 2030. It emphasizes expanding renewable energy use, improving energy efficiency, and enhancing infrastructure and technology to support clean energy access globally, particularly in developing countries. The dataset developed by Burgess et al (2023) provides aggregated data on Official Development Assistance (ODA) and Other Official Flows (OOF) commitments to SDG7.

9. SDG 7 Financing has a strong impact on infrastructure, which subsequently increases growth. A one million dollar increase in SDG 7 financing increases the electrification rate by 0.03 percentage points. Subsequently, increasing electrification rates by one percentage point leads to a 0.10 percentage point increase in growth, after controlling for initial GDP per capita and foreign direct investment.

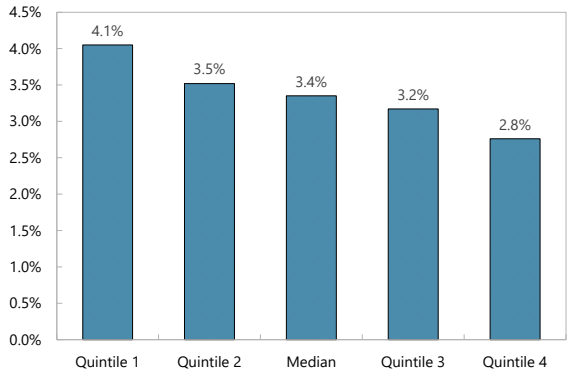
Text Figure 2. Impact of Electricity Access on Economic Growth



Source: IMF staff estimates

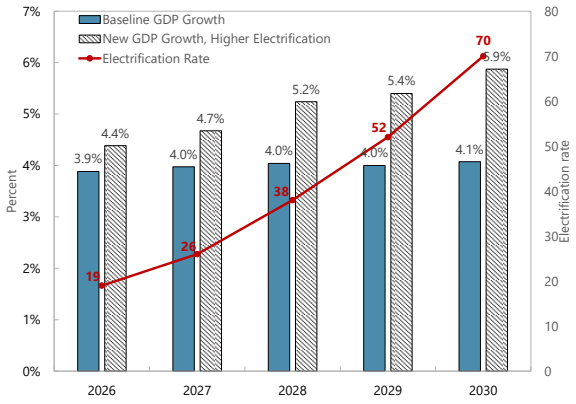
10. Electricity access has a stronger impact on growth in countries with lower per capita income. As we establish the existence of an economically and statistically significant relationship between growth and electricity access, we hypothesize that this effect varies across different points of the income distribution and use quantile regression to test our hypothesis of various growth impacts across country income quantiles. We find that the positive effect of electrification on growth is the most pronounced in the bottom 20 percent of the distribution. That is, African countries with lower GDP per capita see higher benefits to improving electrification. Specifically, in lower income countries in sub-Saharan Africa, a one-percentage-point increase in the electrification rate is associated with approximately a 4.1 % increase in GDP per capita.

Text Figure 3. Impact of Electricity Access on Economic Growth, By Income Quintile Group



Source: IMF Staff Estimates

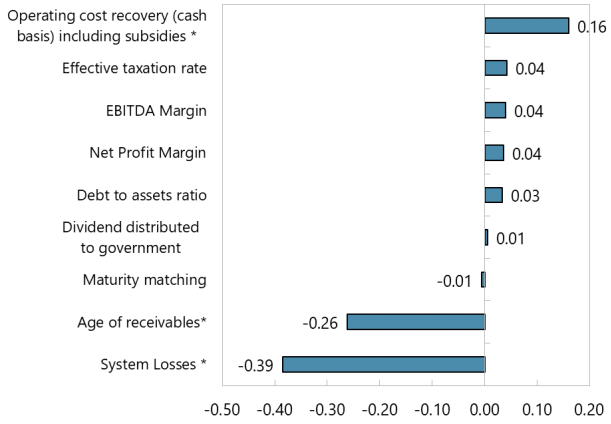
Text Figure 4. The Growth Inducing Effects of Electrification



C. Electricity, Growth and Agricultural Productivity in Burundi

11. Increasing the electrification gradually rate towards 70 percent would yield an additional 2 percentage point growth by 2030. The National Energy Compact for the Republic of Burundi was published in 2025 by the World Bank, under its Mission 300[1] initiative. Under the compact, the country plans to increase its electrification rate, measured as the share of the population with access to electricity to 70 percent. Reaching this electrification goal will allow the country to reach a 6 percent GDP growth by 2030. Increasing access to electricity will be beneficial to the industrial and construction sectors and facilitate the mechanization of agriculture and mining.

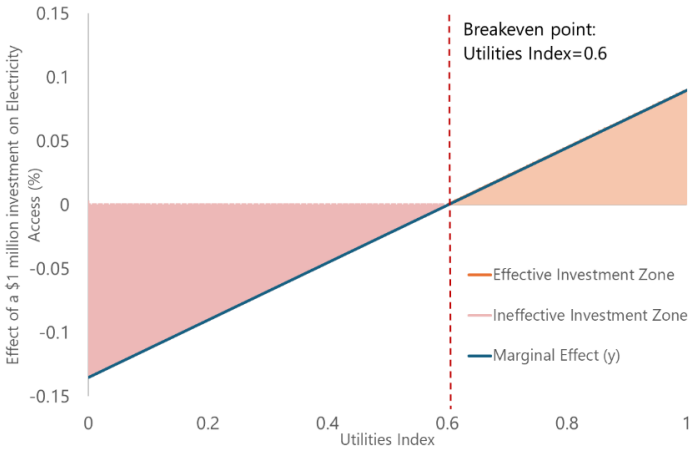
Text Figure 5. Correlation Analysis: Access to Electricity



Source: World Bank UPBEAT Database, IMF Staff Estimates

12. After establishing the relationship between electrification and growth, we expanded the analysis by studying the impact of utility quality on enhancing the growth inducing role of electricity access. Using a composite Utility Index built from nine indicators in the World Bank's UPBEAT database, results show that operational performance matters most for growth-improving electricity access: lower transmission and distribution losses and shorter revenue collection periods are significantly associated with higher electricity access, while operating cost recovery (including subsidies) is the only financial indicator positively correlated with access (Figure 5). In contrast, profitability and capital structure metrics show weak links to electrification outcomes, underscoring that efficiency, billing performance, and sustainable cost-recovery frameworks are more critical than short-term profits.

Text Figure 6. Marginal Effect of SDG Funding by Utilities Quality



Source: IMF Staff Estimates

13. Instrumental variable estimates further indicate that the

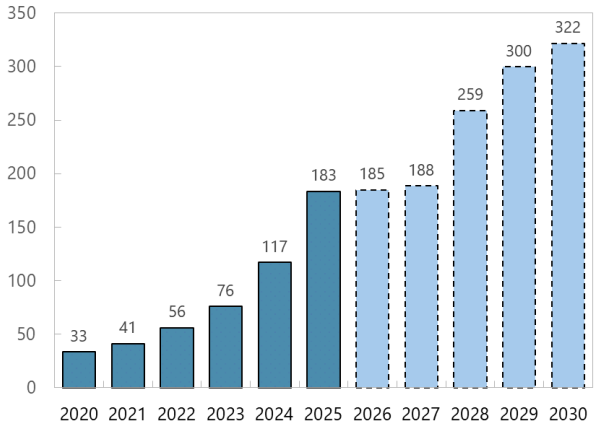
[1] Mission 300 is a World Bank initiative aiming to connect 300 million people to electricity in Africa, by 2030.

growth impact of SDG 7 financing depends on utility quality. We previously found that SDG7 disbursement is positively correlated to electricity access. When we extend the analysis and interact SDG7 financing we find that financing translates into higher electrification rates only where utilities and institutions are stronger. For example for a USD1 million to be effective in increasing electricity access, a country must have a minimum utility score of 0.6 (Figure 6). Although second-stage growth effects are not statistically significant due to sample limitations, the results highlight that complementary sector reforms (see section E.) are essential to maximize the impact of external financing on electrification and growth—an important consideration for Burundi.

Electrification and Economic Growth in Burundi: Evidence from Night-Time Lights

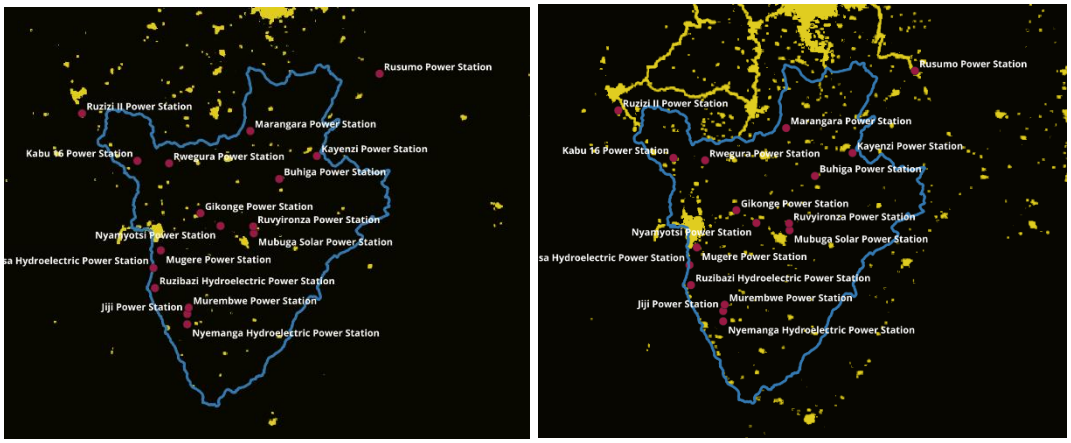
14. Since 2020 Burundi has added 150 MW in electricity production and plans to have a production capacity of 300MW by 2030 (Figure 7). In recent years, Burundi has seen large improvements in its electrification rates, with some regions seeing 2000% improvements in nightlight data (Figure 8). Exploiting spatial and temporal variation in the commissioning of hydropower plants across districts, the analysis identifies the local growth effects of electrification using satellite-based night-time light intensity as a proxy for economic activity. The empirical approach compares outcomes in districts where new plants are launched to those that do not have hydro power plants, before and after plant completion.

Text Figure 7. Electricity Capacity (MW)



Source: IMF Staff Estimates

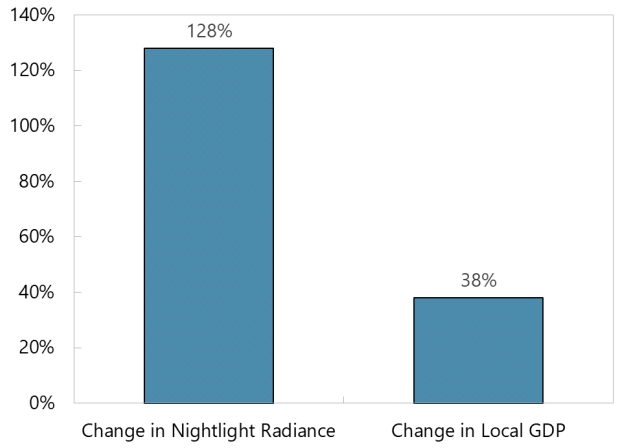
Text Figure 8. Nightlight Data in Burundi (2014-2024)



Source: Elvidge et al, 2017 ; Elvidge et al, 2021

15. Districts with new plants benefit from higher nightlight radiance and a 38 percent increase in local GDP, on average. Nightlight is used as a proxy for growth. Districts with new plants see higher luminosity than counterpart districts. To translate the nightlight effect of power plant launches we used *Henderson, Storeygard, & Weil* (2012) who develop a statistical framework using nightlight data to estimate GDP growth. They find that in low-income countries, the elasticity of nightlight growth to GDP growth is 0.3. Our difference-in-differences estimate indicates that electrification increased night-time luminosity in treated districts by 60 units, relative to a pre-treatment average of 47 units—equivalent to a 128% increase in radiance (Figure 9). Applying the 0.3 elasticity implies that access to the new power plant raised local GDP by approximately 38%.

Text Figure 9. Economic Implication of a Power Plant Launch

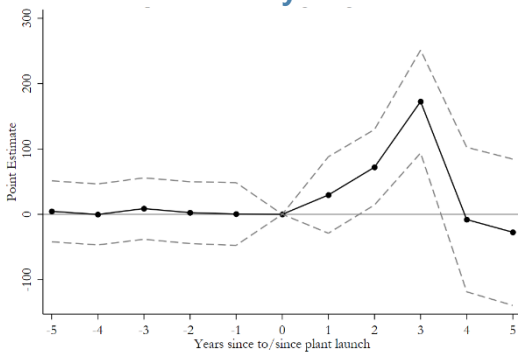


Source: IMF Staff Estimates

Timing of Electrification Gains and the Cost of Transmission Delays

16. Electricity access does not improve immediately following the commissioning of a new power plant. Delaying transmission of the electricity produced can lead to large growth and productivity losses. Our analysis shows that, on average, it takes 3 years for night light radiance to reach its peak following the launch of a power plant (Figure 10). Lags between plant commissioning and increases in night-time lights may reflect gradual demand adjustment, as households and firms take time to respond to new electricity access (*Dinkelman 2011; Rud, 2012*). They may also result from delays in transmission and distribution infrastructure, which often constrain effective use of new generation capacity (*Burgess et al. 2020; Lee, Miguel & Wolfram 2020; Khandker et al. 2014*).

Text Figure 10. Growth Effects of Transmission Delays



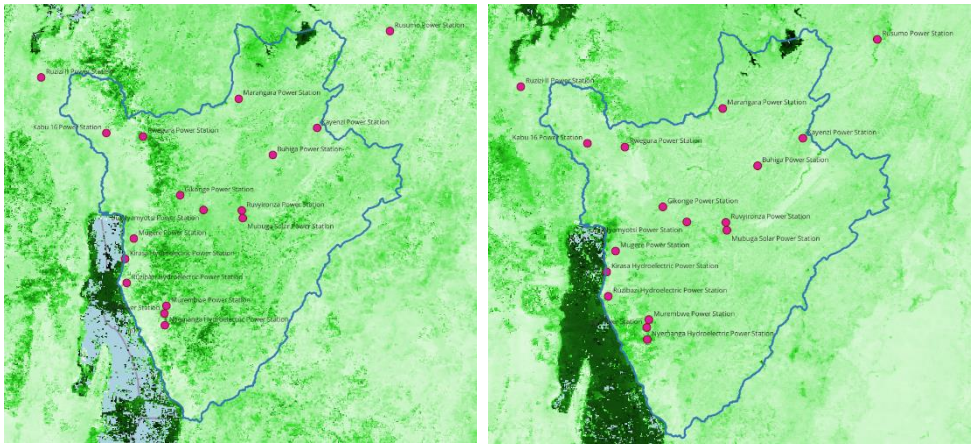
Source: IMF Staff Estimates

Electrification and Agricultural Productivity in Burundi

17. Agriculture is an important sector in Burundi, providing key employment opportunities and supplying a large share of exports. To measure agricultural productivity in a spatially and temporally consistent way, we use Normalized Difference Vegetation Index (NDVI) data, a widely used indicator of vegetation health and biomass. Higher NDVI values indicate denser

or healthier vegetation (Figure 11). By using NDVI as a proxy for agricultural productivity, we can capture overall vegetative growth over time and across communes. Studying NDVI allows us to study whether electrification is associated with improvements in agricultural productivity.

Text Figure 11. NDVI Index: December 2000 vs December 2024



Source: IMF Staff Estimates

18. We find that plant launch is associated with an increase of about 3 percent in NDVI. The effect is statistically significant and robust to alternative samples, suggesting that electrification is correlated with modest improvements in vegetation outcomes rather than environmental degradation. These findings are consistent with existing evidence that improved electricity access can reduce reliance on biomass fuels, thereby limiting firewood harvesting and forest pressure (*Tanner & Johnston 2017*). Electrification may also support higher agricultural productivity through expanded irrigation, improved input use, and greater mechanization (*Dinkelman 2011; van de Walle et al. 2016; Shi et al. 2022*), contributing to higher vegetative biomass detectable in satellite data.

D. General Equilibrium Estimates of Electrification's Impact on Growth Using The IMF-ENV Model

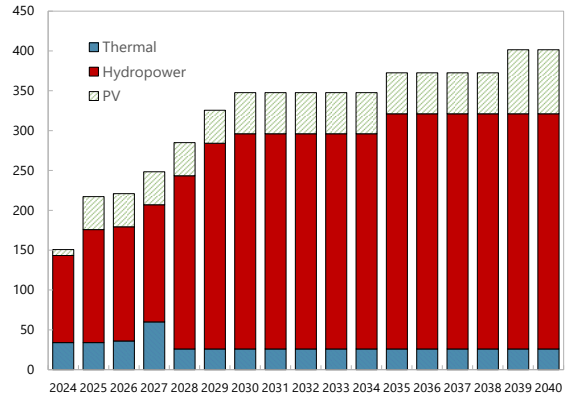
19. We use a global dynamic computable general equilibrium model (IMF-ENV) to capture the macroeconomic dynamics of energy policies in Burundi. The country has strengthened its climate policy, reflecting its commitment to mitigation and sustainable development. Under its Nationally Determined Contribution (2021) to the Paris Agreement, the authorities aim to reduce greenhouse gas emissions by 3 percent relative to a business-as-usual scenario by 2030 through unconditional measures and by up to 12.6 percent conditional on external support. Burundi also ratified the Kigali Amendment to the Montreal Protocol in 2021 and committed to peak hydrofluorocarbon consumption by 2024. In addition, the REDD+ National Strategy and Action Plan target a 23 percent reduction in greenhouse gas emissions through land-use and forestry measures. Through forest ecosystems management they plan to reduce deforestation by 90 percent and forest

degradation by 95 percent, increase forest cover to 20 percent by 2025, and strengthen forest carbon stocks by 2027.

20. Burundi is also participating in several multilateral initiatives aimed at expanding electricity access and strengthening energy infrastructure. Under the Accelerating Sustainable and Clean Energy Access Transformation (ASCENT) program led by the World Bank, the authorities are implementing a USD185 million project scheduled to run through June 2029, to expand electricity access and improve service quality. The initiative focuses on rehabilitating and modernizing Bujumbura's power grid, extending it and improving the reliability of electricity services. The project is expected to benefit around 2.4 million people, with nearly 1,200 public institutions and 6,000 small and medium-sized enterprises projected to receive new or improved electricity services. The African Development Bank is also supporting electrification strategy, electricity generation expansion and increasing renewable energy in the electricity mix.

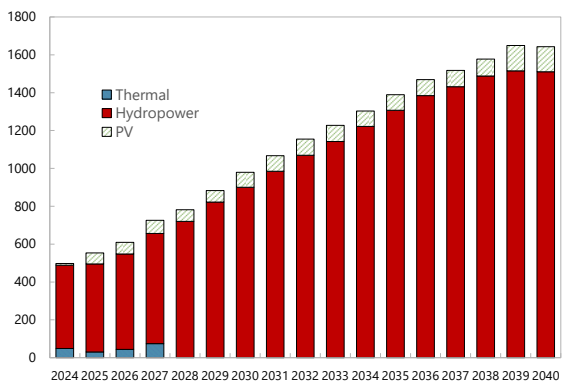
21. Under current policy plans installed capacity should double and generation triple in 2040 compared to 2025 levels. The expansion in capacity is largely driven by additional hydropower (about 154 MW) and solar PV (around 40 MW), partly offset by the retirement of 8 MW of thermal capacity. Consequently, electricity generation in 2040 rises by about 1,044 GWh from hydropower and 74 GWh from solar PV, while thermal generation declines by roughly 30 TWh. Hydropower's share in total generation increases from 84 percent in 2025 to about 92 percent by 2040. Macroeconomic projections through 2031 are taken from the IMF's World Economic Outlook (WEO). Projections for subsequent years are drawn from the OECD's long-term macroeconomic outlook based on the Shared Socioeconomic Pathway 2 (SSP2), consistent with the IMF's recommended baseline assumptions.

Text Figure 12. Installed Capacity (MW)



Source: IMF Staff Estimates

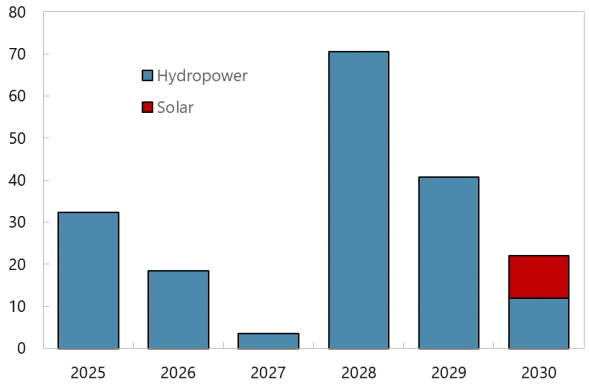
Text Figure 13. Electricity Generation (Gwh)



22. In addition to the baseline, one central policy scenario is modeled where an additional 178MW of hydropower and 10MW of solar PV capacity comes online starting in 2025 as planned projects become operational. Consistent with project documentation, these investments are assumed to be financed through external funding. The scenario captures the near-term supply-

side effects of accelerating renewable deployment and allows for an assessment of implications for the generation mix, electricity costs, and emissions relative to the baseline.

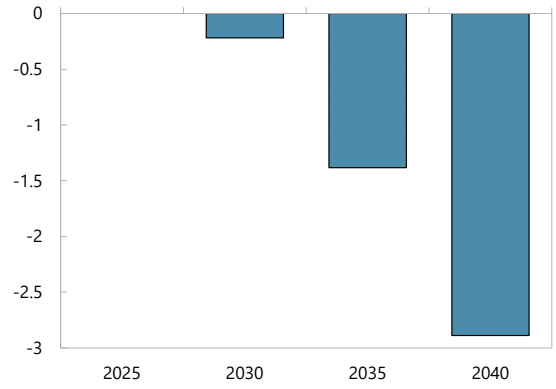
Text Figure 14. Planned Capacity Additions (MW)



Source: IMF Staff Estimates

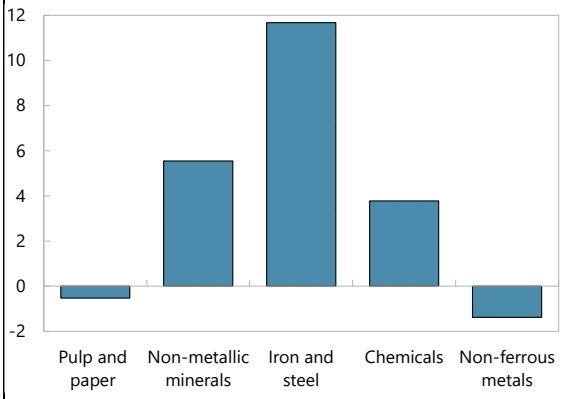
23. Increased supply of electricity by hydropower pushes down prices. Under the policy scenario, the gradual commissioning of new hydropower capacity contributes to a progressive easing of electricity supply prices over the medium to long term. As newly installed capacity becomes fully operational, the downward impact on prices is initially limited, with only modest reductions seen by 2030. Over time, however, the cumulative expansion of hydropower generation leads to a more pronounced effect on prices. By 2040, electricity supply prices are projected to be around 3 percent lower than in the baseline scenario.

Text Figure 15. Electricity Price



Source: IMF Staff Estimates

Text Figure 16. Gross Sectoral Value Added (2040)



24. Lower electricity prices support the expansion of output in some energy intensive and trade-exposed industries by reducing production costs. Consistent with the modeling literature, we classify five sectors as energy-intensive and trade exposed-pulp and paper, non-metallic minerals mining, iron and steel, chemicals and non-ferrous metals mining. Sectoral gross value-added increases in non-metallic minerals (5.5 percent), iron and steel (11.7 percent), chemicals sectors (3.8 percent) which are considered energy intensive industries and therefore, benefit from lower energy prices and could support export performance of these sectors.

25. The effect on electricity prices is contingent on the timely expansion of complementary transmission and distribution infrastructure. In the standard model specification, grid infrastructure is assumed to be a necessary complementary input to electricity generation. Accordingly, higher electricity generation endogenously leads to increased investment

in transmission and distribution sectors. To assess the implications of insufficient complementary investment, simulations fix sectoral investment in the grid at baseline levels while allowing hydropower generation to expand. Under this scenario, the decline in electricity prices is eliminated, and prices may even rise slightly (about 0.8 percent above baseline in 2040).

E. Energy Policy to Support Strong Growth Outcomes from Electrification

26. Electrification can be a major driver of growth in Sub-Saharan Africa, and Burundi is well placed to benefit. Better access to electricity can raise productivity by supporting mechanization, lowering reliance on expensive and unreliable fuels, and expanding opportunities in irrigation, agro-processing, and small businesses. It can also strengthen human capital through improved lighting for study and training and improve public service delivery in remote areas. Burundi's structural features make the potential gains especially large. The country has significant hydropower potential, estimated at about 1,700 MW, but only a small share is currently exploited. Ongoing projects could raise utilization substantially by 2030. Because hydropower can provide relatively low-cost generation, Burundi has an opportunity to expand supply at competitive prices (according to the Energy For Growth Hub data the average LCOE for Hydro power generation in Africa is 6 cents per KwH, going as low as 3 cents for countries like Ethiopia). Its small territory and high population density also reduce grid expansion costs compared with many other African countries. Estimates under Burundi's energy compact suggests that raising grid access to 70 percent of the population would require about USD1.5 billion in transmission and distribution investment.

27. Infrastructure expansion alone, however, will not guarantee strong growth effects. Experience across Sub-Saharan Africa shows that grid extension does not always lead to high take-up or productive use, especially when utilities are too weak to maintain networks or complete last-mile connections. Burundi therefore needs complementary policies to support both supply expansion and effective electricity use by households, farmers, and firms.

28. On the demand side, policy should focus on affordability, payment flexibility, and productive use. Tariffs and payment arrangements need to reflect low and volatile incomes, especially in rural areas. Credit, microfinance, and prepayment systems can help households and farmers adopt electricity services. Grid expansion should also prioritize users with productive demand—farms, commercial activities, and small industries—so electricity use supports income generation and cost recovery. In Burundi, the agricultural sector is central: electrification can support irrigation, raise yields, and promote cold storage and processing that reduce post-harvest losses and strengthen value chains.

29. On the supply side, policy must balance affordability with utility sustainability. Tariffs should cover operating costs, maintenance, and investment while protecting low-income households. Service quality is equally important: frequent outages discourage connections, reduce productive use, and disrupt business activity. Reliable electricity therefore requires a utility that is financially sound and able to maintain and expand the network.

Energy Policy Principles for Successful Electrification

30. The full effects of electrification take time. Investments are large, project cycles are long, and coordination across government, regulators, utilities, and private producers is complex. Still, several principles are clear. Policies should reduce barriers to connection and use through social tariffs and targeted cross-subsidies, while encouraging productive consumption rather than minimal household access alone. Electrification will generate stronger growth when users can turn access into income and higher output.

31. In Burundi, this means combining grid rollout with measures that make electricity economically useful. Agricultural producers need financing adapted to seasonal incomes, including microcredit and prepayment options. Policies should also support the adoption of electric equipment such as irrigation systems, cold storage, and other productive technologies. These measures can raise productivity, expand demand, and improve cost recovery across the system.

32. Policies must also prioritize reliability and pricing reform. Improving service quality should go hand in hand with grid expansion and new generation investment. Stronger utility management, clearer cost recovery rules, and targeted protection for low-income consumers can reconcile financial viability with social inclusion. The regulatory framework should also preserve incentives for private participation, including Independent Power Producers and off-grid providers.

Key Priorities for Burundi: Utility Reform and Regulation

33. Utility ownership. Public ownership can be justified at Burundi's current stage because electrification serves strategic objectives such as rural access, social inclusion, and alignment with national development goals. A public utility can expand coverage where private returns are too uncertain and can use cross-subsidies to preserve affordability. But public ownership also carries risks: politically driven tariffs below cost can generate losses that require budget support, while weak governance can undermine maintenance, increase losses, and reduce service quality. Public ownership therefore needs to be matched by stronger governance, transparency, and financial discipline.

34. REGIDESO: Towards operational autonomy and commercial management. REGIDESO will remain central to Burundi's electrification strategy because its hydroelectric assets are expected to provide most of the power needed for grid expansion, even if Independent Power Producers also contribute. To play this role effectively, it needs stronger internal controls, better financial management, and greater operational efficiency. Better auditing and analytical accounting are particularly important to clarify production costs, improve transparency, and support sound tariff setting. REGIDESO also needs greater autonomy to operate on a more commercial basis while remaining publicly owned. Public-sector procedures can delay procurement, staffing, and investment decisions, and foreign exchange shortages impede the procurement of equipment essential to grid maintenance (tools, wiring). Human resource management must also be strengthened through more competitive pay, better career development, and stronger training to attract and retain the engineers and technicians the sector requires.

35. Energy regulation, tariff setting and utility unbundling. A stronger regulatory framework is essential for an efficient and financially sustainable energy system. Future reforms should anchor cost recovery more clearly in law and regulation while preserving broad access through targeted cross-subsidies and efficient pricing structures. Regulation should also provide a credible framework for private participation, including feed-in tariffs and clear rules for Independent Power Producers, energy trade, and agricultural electrification. Over time, tariff setting should become more independent and less politicized so prices can move gradually toward cost-reflective levels. Over the medium term, Burundi could consider gradually unbundling generation, transmission, and distribution. If well sequenced, this could strengthen competition, improve the balance between public and private operators, and help attract financing for modernization and renewable energy. But success would depend on regulatory capacity and the broader institutional environment.

Annex I. IMF-ENV

1. The IMF-ENV model is a global dynamic computable general equilibrium (CGE) model (Chateau et al. (2025)). The model is built primarily on the near global GTAP database of input-output tables of 160 countries and 76 commodities and solves recursively. IMF-ENV provides a flexible framework that is well suited to analyze policies that generate large structural changes (i.e., changes in the sectoral composition of economies) like those resulting from ambitious decarbonization goals. The model has a high level of sectoral and country granularity, the flexibility to incorporate many different types of policy instruments, and the capacity to analyze the general equilibrium effects of policies, as well as their cross-border effects through a detailed representation of trade flows. Policies that can be simulated include different carbon pricing schemes (carbon taxes on different activities, sources and gases, national and regional ETS, CBAM), energy policies (subsidies, feebates, direct and indirect regulations), sectoral regulations (overall and sector-specific energy efficiency standards, requirements to install household heat pumps, regulatory policies on land, fisheries, and forestry sectors), and new green technologies (CCUS, EV penetration). IMF-ENV can provide impacts of climate mitigation policies on emissions, real macroeconomic variables, sectoral economic activity, and international trade patterns.

2. IMF-ENV is based on a neoclassical framework that optimizes the behavior of households and firms to provide the general equilibrium effects of policy shocks. Production functions are defined as nested CES functions that allow to simulate the substitution possibilities between different production factors, and domestic and international intermediate inputs, including different energy sources. A prominent feature of IMF-ENV is that it features vintage capital stocks to capture frictions in capital mobility in such a way that a firm's production structure and behavior are different in the short and long term. In each year, new investment is flexible and can be allocated across activities until the return to the "new" capital is equalized across sectors; the "old" (existing) capital stock, on the contrary, is mostly fixed and cannot be reallocated across sectors without costs. Consequently, short-term elasticities of substitution across inputs in production processes (or substitution possibilities) are much lower than in the long term and make adjustments of capital more realistic. In contrast, labor (and land) market frictions are limited: in each year, labor (land) can shift across sectors with no adjustment cost until wages (land prices) equalize, while the labor (land) supply responds with some elasticity to changes in the net-of-taxes wage rate (land price). The model assumes that all markets attain equilibrium in each period, and hence, it is not well suited to analyze potential disequilibrium that could arise in the short term, especially in the labor market. The magnitudes of labor sectoral reallocations and relative wage changes are, however, indicative of the size of the needed adjustment and frictions that can be expected in the transition.

3. The model links economic activity to environmental outcomes. Emissions of greenhouses gases (GHGs) and other air pollutants are linked to economic activities either with fixed coefficients, such as those for emissions from fossil fuel combustion, or with emission intensities that decrease (nonlinearly) with carbon prices—marginal abatement cost curves. This latter case applies to emissions associated with non-energy-input uses (e.g., nitrous oxide emissions resulting from

fertilizer uses) or with output processes (like methane emissions from waste management or carbon dioxide emissions from cement manufacturing).

4. IMF-ENV undergoes continuous development. Recently, two model versions with regional focus on the Sub-Saharan Africa and Middle East and Central Asia regions have been developed. Ongoing model development work focuses on creating an R&D and technology diffusion module and incorporating international capital flows in the model. Moreover, several model extensions are possible conditional on data availability and relevance for a country. IMF-ENV can be soft-linked to specialized sectoral models like for the energy, agricultural or land-use sectors. The model can also include damages from climate change, either at a sectoral or factor level (i.e., agricultural labor and/or capital, transportation services, energy supply) and/or at the aggregate level (real GDP effects, overall labor productivity reductions). This applies to both slow-moving long-term shifts in climate and changes to the intensity and frequency of extreme weather events. In both cases, the model requires country-specific information on the specific damages that need to be modeled. Finally, the model can also be linked to household microsimulation models and/or use household survey data to provide detailed poverty and inequality effects through both household incomes and expenditures for all the macro policies simulated.

5. The IMF-ENV model has been widely used in a variety of contexts, including multi-country studies on international climate policy cooperation (see Chateau et al. (2022a) and Black et al. (2022)), cross-border effects of asymmetric climate policies (see Fournier et al. (2024)), energy security (see Dolphin et al. (2024) and Rojas-Romagosa (2024)), climate financing (Black et al. (2022) and Cai et al. (forthcoming)), and supporting climate policy analysis within individual countries. It has been applied for the analysis of climate mitigation and decarbonization policies in many AIV consultations (see, for example, applications for Canada, India, Indonesia, Italy, Mexico, Poland, Saudi Arabia, South Africa, USA) and several FSAPs (see applications for Germany, Kazakhstan, Mexico and Japan). In the context of G20 countries, it has been used to assess the macroeconomic impacts of domestic mitigation policies, exploring a range of policy instruments, and conducting research on competitiveness and carbon leakage, emphasizing the importance of simultaneous climate policy implementation across countries (see Barrett et al. (2021), Chateau at al. (2022b), Chateau et al. (2023)).

6. Macroeconomic and sectoral dynamics are defined for each sector in a region. Production activities are represented by a regionally calibrated nested CES production function and rely on primary factors (land, labor, capital, and natural resources) and intermediate inputs. The outputs from each production activity could enter as intermediate demand in other domestic sectors, direct demand by households and/or be internationally traded. A key characteristic of the model is that it considers frictions in domestic reallocation of capital and provides more realism by differentiating capital by vintage types. This feature of the model is particularly relevant when considering the rapid transition in domestic extraction and energy sector given that continued investments and unplanned retiring of capital risks is costly to retire while gradually decommissioning capacity could lower the costs.

7. Inter-sectoral economic linkages and sectoral emissions: The model provides rich detail on economic impacts and related GHG emissions for each of the 36 production activities and 28 internationally traded commodities. Emission intensive sectors including fossil fuel extraction (coal mining, crude oil, refined oil, gas extraction), fossil power generation (coal, oil and gas-powered electricity) and energy intensive and trade exposed (EITE) sectors (iron and steel, non-metallic minerals, chemical, pulp and paper, and non-ferrous metals) are separately represented in the model. Under mitigation there is a structural change towards less emission intensive activities or emission-free activities. Emission-free activities are available only in the power generation sector and include generation from renewables like solar PV, wind, hydropower, nuclear and others. Negative emissions are allowed for the LULUCF sector though in the standard model specification, the evolution of emissions from LULUCF is exogenously determined and not affected by the policy setting. This means that the model can track the path of global and regional greenhouse gas emissions, including the changes in global commodity prices.

8. Accounting for domestic and international policies: Each of the model regions and countries are individually calibrated in the model and the rest of the world is aggregated into six model regions. Model regions are linked to one another via bilateral trade across commodities. Thus, the model captures the cross-border spillovers of policies via changes in bilateral trade volume and prices across commodities and can quantify the global impact of domestic and international policy changes on international trade, international commodity prices, and global GHG emissions. This feature is particularly important when considering the implications of a global or sub-global mitigation scenario.

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