

FEASIBILITY OF SALGA AS A LOCAL GOVERNMENT FINANCING AGENCY FOR SUPPORTING MUNICIPAL JUST ENERGY TRANSITION IMPLEMENTATION PLANS IN SOUTH AFRICA

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ABSTRACT

This paper explores the feasibility of the South African Local Government Association (SALGA) establishing a local government funding agency (LGFA) to support municipalities in implementing the Just Energy Transition Implementation Plan (JETIP). The study responds to declining intergovernmental grants and rising infrastructure financing needs for sustainable investments. Using qualitative methods, it analyses annual reports from LGFAs in various regions and draws on a narrative literature review to identify success factors such as institutional performance, governance, credit ratings, and sustainability initiatives. Findings show that LGFAs globally have improved municipal access to capital markets, lowered borrowing costs, and supported climate-aligned infrastructure. However, challenges specific to South African municipalities—such as weak institutional capacity and fiscal imbalances—could limit successful LGFA implementation. SALGA's role in advocacy, governance support, and stakeholder engagement is critical to overcoming these barriers. The study is limited by its reliance on secondary data, which may not fully reflect local dynamics. Future research should include local case studies and stakeholder surveys to assess municipal demand for an LGFA. Key recommendations include developing pooled financing mechanisms, building capacity for project preparation, and aligning LGFA design with climate finance frameworks. By tailoring the LGFA model to South Africa's unique context, SALGA can help catalyse green infrastructure investment and strengthen municipal financial resilience. This paper contributes to debates on sustainable municipal finance and offers a strategic pathway for enabling municipalities to participate meaningfully in the country's energy transition.

Keywords: Public development banks, local government financing agency, just energy transition, municipal infrastructure finance, South African Local Government, sustainable development.

INTRODUCTION

Despite climate change being a global phenomenon, its impacts are felt and addressed at the local government level. Municipalities in South Africa have a documented timeline of climate disasters. The City of Cape Town's drought resulted in a Day Zero campaign, in which the municipality forecasted a day when it would completely fail to provide water services (City of Cape Town, 2018). eThekweni has been experiencing countless major floods at a more frequent rate than previously documented (Sefolo et al., 2024: 1). It therefore becomes incumbent on municipalities to consider how their infrastructure decisions and investments respond to climate adaptation and mitigation. Municipalities are able to have access to diverse and alternative infrastructure financing options to respond to the massive infrastructure gap brought about by the global climate commitments (Elmahdi & Wang, 2022: 191). Chapter 10 of the Just Energy Transition Implementation Plan (JETIP) outlines municipal infrastructure investment requirements at an estimated R 273 billion to upgrade the grid for "successful energy transition" (The Presidency, 2023:247). To expand infrastructure finance options for municipalities, this paper seeks to explore the feasibility of SALGA acting as a local government funding agency (LGFA) to support financing of municipal energy transitions.

BACKGROUND

Municipalities are instrumental to the energy transition agenda of the country, especially in the context of their constitutional mandate.

The Constitution of South Africa in Schedule 4, Part B recognises municipalities as being responsible for electricity reticulation as well as the custodians of electricity distribution and upkeep within their boundaries (Constitution of South Africa, 1996: s4; Todd & McCauley, 2021: 112529). The country's decarbonisation commitments and agenda have major implications for municipalities, not only in terms of their functions and mandates but also for their fiscal framework. The Constitution of South Africa recognises the right of municipalities to levy surcharges on trading services as per Section 229 (Constitution of South Africa, 1996: s229). The White Paper on Local Government, currently under review, assumed revenue from electricity trading services will contribute a sizeable portion of the municipal fiscal framework (Ledger & Rampedi, 2020). Energy generation reforms such as residential photovoltaic (PV) systems, whereby households can generate their own electricity, are disrupting the assumed municipal fiscal framework as foreseen by the white paper (Baker & Phillips, 2018:177; Mayr et al., 2015:10). Municipal challenges in financing energy transitions are a global phenomenon. Of particular concern is the difference between the capabilities of large and small municipalities, which results in uneven progress on the energy transition efforts (Hoppe & Miedema, 2020: 915). Access to finance is critical to municipalities to pursue their energy transition initiatives and meet the Sustainable Development Goals (SDGs) (Raimo et al., 2024).

The national economy's low growth and a trajectory of declining intergovernmental grants mean that municipalities must explore alternative infrastructure financing options to expand their own revenue sources (Bernal & Ablien, 2023:45). Most of the energy transition infrastructure requires upfront capital investments (Hoppe et al., 2015: 1900) while the mismatch between capital available for renewable energy transition and where the funds should be directed seems to be one of the critical issues impacting renewable energy finance (Egli et al., 2022; Polzin & Sanders, 2020). Against this backdrop, project preparation emerges as a key component to scaling up energy transition projects. Van de Putte et al. (2020:257) list enablers of municipal energy transition scaling up as capital market development, government regulation reform, and most importantly, projects' bankability to match necessary financing. The availability of finance is a key barrier when the South African energy transition challenges are assessed (Todd & McCauley, 2021). In studying the state of European municipal energy transition, Traill et al. (2021) also cite those municipalities' main challenge to transition as the difficulty in securing finance.

Bureaucratic policy and institutional situations also affect the ability of municipalities to finance the energy transition, as the private sector is still reluctant to invest in energy transition infrastructure because of policy discontinuance risks (Polzin & Sanders, 2020). Yanosek (2012) observes that the United States energy transition research and development programmes are always at the mercy of "political winds and bureaucratic challenges". Leadership must be fostered with the decentralisation of energy transitions to promote strong intergovernmental coordination and governance support (Traill & Cumbers, 2023: 93). In South Africa, municipal institutional failures and deficiencies, including corruption, have hampered their ability to execute renewable energy projects effectively (Todd & McCauley, 2021). The state of municipal finances and the financial constraints of municipalities also contribute to their inability to invest in renewable energy infrastructure (Mmako & Maribe, 2024: 366; Sitishe et al., 2023: 184).

KNOWLEDGE GAP OF THE STUDY

The just energy transition is an emerging programme in South Africa, and though the country has been involved in climate conferences over the years, including being a signatory to the COP 21 Paris Agreements in 2015, local government has never had a top-down detailed climate programme similar to the JETIP. By shifting energy generation from coal to renewables, the JET programme will have major socioeconomic ramifications for municipal territories across the breadth of the county. Coal has already been felt negatively in the eastern regions of the country, particularly in the Mpumalanga province which is blessed with rich coal fields that power the country's "high-carbon, electricity-intensive, minerals-energy complex" (Baker, 2015:245). The closure of coal mines, coal power stations, and related supporting businesses in this region has directly impacted the livelihoods of communities and indirectly affected the revenue sufficiency of municipalities in these regions (Nel et al., 2023:1059312). The western regions of the country, particularly the Northern Cape province, that are endowed with high solar energy potential have seen major investments in solar and wind energy infrastructure investments (Brooks et al., 2015:2).

Municipalities in this region have different energy transition dynamics and opportunities. They can, for example, enhance local generation and independence and, for rural municipalities, potentially facilitate full electricity access (Cunial, 2021:300).

Also, the role of municipalities in facilitating planning and investments in critical skilling and infrastructure can assist with reducing the potential inequalities and increase in poverty that might be associated with the energy transition (Bohlmann et al., 2023:10854; Nsafon et al., 2023). Municipal investments in sustainable alternatives to reduce reliance on coal can improve job creation and support their local economies (ILO et al., 2023: 103; Rae & Erfort, 2020: 26). Energy transitions require focusing not only on environmental sustainability but also on social equity (Müller et al., 2021:199). Municipalities are critical to achieving the transition, and how they plan and budget for the JETIP will determine their true intent and level of commitment to the programme.

Municipal JETIP obligations are nuanced and complex. The ability of municipalities to respond to the energy transition agenda goes beyond municipal infrastructure financing requirements and includes municipal institutional reconfiguration, interaction with emerging stakeholders within municipal jurisdictions, and adaptation to and enabling new economic sectors. A case for exploring a local government financing agency that will not only help municipalities with their JETIP infrastructure financing needs but will also offer programmes to help them deal with the new energy reform complexities is one that should be considered. The remainder of this paper discusses the South African local government infrastructure dynamics. The paper explores institutional and theoretical paradigms and frameworks applicable to local government finance agencies, as well as the global proliferation of local government financing agencies. The paper also includes the research methods, the research findings, and a discussion section which attempts to integrate all sections of the paper, followed by the recommendations of the study.

GAPS IN MUNICIPAL INFRASTRUCTURE FINANCE AND HOW THE LOCAL GOVERNMENT FINANCING AGENCY (LGFA) CAN POTENTIALLY FILL IT

South African Municipal Infrastructure Finance

Local government in South Africa has been structured to be at the focal point of government's redress of historical socioeconomic challenges through development policies (Mlambo & Maserumule, 2024: 211). Through fiscal federalism ideals – that some services are best placed at a local level – communities are consulted through public participation processes in terms of what their most pressing needs are and whether municipalities are prioritising the right infrastructure initiatives through their plans and budgets (Reddy, 2016). Municipal services are infrastructure intensive and require large capital investments. Municipal borrowing is dynamic and is affected by a variety of issues, including a municipality's revenue base and intergovernmental transfers. Municipal borrowings have remained flat in real terms over the years (Matsie, 2023). The ability to attract private finance for trading services infrastructure remains a challenge for municipalities (Dithebe et al., 2019: 103). Over time there has been an observed reliance by municipalities on infrastructure grants for capital investments (Glasser & Wright, 2020: 413).

Financial constraints and limited resources of municipalities therefore frequently result in their inability to finance infrastructure projects independently. LGFAs have the potential to bridge this infrastructure gap by providing the requisite finances to support local government infrastructure projects, especially with the emerging infrastructure obligations that have been introduced by the JETIP. The following section examines the institutional and theoretical underpinnings of LGFAs.

Institutional and Capital Markets Theories

Public development banks (PDBs) are institutions that have contributed significantly to the financing of energy transitions to meet the COP21 Paris Agreement of 2015. In assessing renewable energy innovation financing, Mazzucato and Semieniuk (2018: 8) observe that PDBs have played a critical role in stabilising renewable energy investments after the 2008 recession while also having an appetite to invest in high-risk technologies. Globally, PDBs manage assets of approximately \$12 trillion, of which about \$50 billion is for climate finance directed towards low- and middle-income countries (Bibac, 2024: 103482). The lion's share of the PDB climate finance instruments has, however, been directed towards developed countries and countries in Asia (Bibac, 2024: 103482; Kim & Lee, 2021: 2648). Closer to home, an assessment of Southern Africa's PDBs JET finance initiatives have found that these institutions tend to redirect renewable energy funds and that they have business plans with unclear sustainability priorities (Omar et al., 2024).

LGFA are subnational development banks (SDBs) that have become crucial in financing energy transition for communities and regions that cannot attract investments from traditional financing structures such as commercial banks. Where there are policy uncertainties and weak local financing instruments, however, SDBs tend to fail to finance energy transition as they require strong alignment with global policy to meaningfully finance energy transition (Isah et al., 2023). SDBs require strong institutional quality and governance frameworks to execute efficient renewable energy financing instruments (Qadir et al., 2021: 3590). Empirical literature on PDBs has focused more on the contribution of multilateral (MDB) and national (NDB) development banks towards financing renewable energy programmes, while not much research has been dedicated to SDBs.

Capital markets are underpinned by neoclassical perspectives that emphasises the importance of market failures and inefficiencies (Geddes, 2020). A dominant theory in financial markets is the efficiency market hypothesis (EMH). The EMH argues that markets are efficient because prices reflect all available information (information symmetry) at a point in time (Fama, 1970: 383). A further argument is that the higher the risk, the higher the return for the investor. Hall et al. (2015: 280) counterargue that EMH is not effective in renewable energy finance markets because these markets have structural constraints such as high volatility associated with their unpredictable nature; the key argument being that EMH is ineffective in these markets because information asymmetry is inherent (Hall et al., 2015: 280). Advocating for an evolutionary perspective of capital markets (Geddes, 2020) or new thinking in finance (Schoenmaker & Schramade 2019), the adaptive market hypothesis (AMH) is promoted as a more effective perspective to manage the renewable energy finance market. According to the AMH, markets evolve according to changing circumstances.

Learning is gleaned from experiences and previous information directs future decisions. Energy transitions involve investments, innovations and regulatory adaptations and the AMH best reflects these components of the market (Dahlke et al., 2021: 451). JET investments will require continuous investment in infrastructure, a requirement that EMH cannot fully account for (Chen & Shang, 2024; Dalei & Joshi, 2023:25). Finally, and most importantly, renewable energy needs to be considered around new thinking in finance that considers social and environmental aspects (Schoenmaker & Schramade, 2019).

LGFA – Contextual Definition

An LGFA is a special purpose vehicle (SPV) that is owned by municipalities and, in certain cases, has minority shares held by the national government or other public stakeholders (Anderson et al., 2010: 114). These institutions have different naming conventions in each of the regions and countries they operate. In the United States of America (US) they are known as municipal bond banks while in Canada they are referred to as municipal finance authorities. Nordic countries (Denmark, Sweden, Norway and Finland) refer to them as local government funding agencies while in China, they are referred to as local government financing vehicles. Other names they are referred by in literature are local government funding platforms (Lu & Sun, 2013) and municipal credit pooled agencies (Harris, 2021). For the purposes of this paper, they are referred to as local government financing agencies (LGFA). Whatever they are called, these agencies have the critical role of financing key social and economic infrastructure. Devas et al. (2008) and Akapelwa and Mwangi (2023: 765) argue that LGFAs operate within the principles of fiscal federalism. They allow for direct municipal participation in lending, representing both the implementation of the classic public finance models and platforms for indirect local government in the financial market (Anderson et al., 2010: 114).

Table 1 below outlines factors that have made local government financing agencies in the Nordic countries successful:

Table 1: LGFA success factors

1. Municipalities should have executive authority recognised in the constitution of a country.
 2. Municipalities should have assigned functions supported by legislation.
 3. Municipalities must buy into the concept of a LGFA.
 4. The local LGFA must not be profit driven.
 5. The LGFAs must attract capable professionals who can interact with the financial and capital markets.
 6. The LGFAs must be able to reduce the dominant market share of commercial banks.
 7. The LGFAs must be centres of knowledge, providing training to their members.
 8. The LGFAs lend only to municipalities and their agencies.
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Source: Anderson et al. (2010:114)

The LGFA applies the Municipal Pooled Finance Mechanism (MPFM) in its operations. Shipalana (2020), in her exploration of pooled financing in South Africa, defines it as a cooperation between municipalities with similar credit profiles and interest in financing mutual infrastructure by debt sources. These municipalities do not have the capabilities to go about accessing capital markets individually. The revised Policy Framework for Municipal Borrowing (PFMB) sets the conditions and potential risks associated with MPFM (Policy Framework for Municipal Borrowing - PFMB, 2017). Darius (2018) does not differentiate between the LGFA and the MPFM in explaining how Nordic LGFAs have successfully raised bonds on behalf of their respective country municipalities. One of the most common ways LGFAs finance municipalities is through the issuing of bonds. Municipal bonds have become the most robust infrastructure financing mechanisms while considering that each country has its own unique macroeconomic circumstances (Medda & Coconcelli, 2018: 220). A pooled financing mechanism has been explored by the Presidential Climate Commission (PCC) for just transition endeavours. The just transition financing mechanism (JTFM) deems pooling of resources as a strategy for mobilising funds (PCC, 2024). The JTFM further outlines strengths and weaknesses of centralised and decentralised financing institutions as well as required institutional criteria as speed to market, longevity, political economy, simplicity of structure, governance and accessibility (PCC, 2024).

LGFA – International Experiences

LGFAs have been in operation globally for more than one hundred years. In the Americas, they were first introduced in Canada in 1956 and in the US in 1970 (Gilbert & Pike, 1995: 195). Robbins and Kim (2003: 92) concluded that LGFAs in the US have reduced borrowing costs, while Ang et al. (2010) observed that LGFAs were able to provide US municipalities with affordable capital after the 2008 great recession. LGFAs in the US have maintained good credit ratings despite no guarantees from the national government and are yet to default on their debt (Matsie, 2023). In Nordic countries, LGFAs play a crucial role in supporting infrastructure investment and social welfare programmes. In terms of financing, while central government budgets are a primary source for infrastructure projects in many countries, the Nordic model emphasises the role of LGFAs in accelerating local infrastructure investment through mechanisms such as municipal bonds (Medda & Coconcelli, 2018: 220). The Nordic countries have been successful in promoting sustainability and transparency in local governments, with Nordic governments ranking high in transparency of sustainability information compared to other European regions (Navarro-Galera et al., 2017:432). Kommunalbanken in Norway serves as a significant LGFA in Norway, playing a crucial role in supporting infrastructure development and social welfare programmes. The second largest financial institution in Norway, it was established in 1927 and is 100% owned by the state (Juuti et al., 2023: 119). Kommunalbanken is responsible for providing financing to local and regional authorities, including municipalities, counties, and municipal and county-owned companies. It issues bonds in the capital markets, both domestically and internationally, and lends the proceeds to its member entities. Finland has MuniFin and the Municipal Guarantee Board (MGB) within its LGFA paradigm. MuniFin pools the infrastructure financing needs of the municipalities while MGB uses the loans from Munifin as collateral (Vammalle & Bambalaite, 2021).

All municipalities in the country are party to the pooled finance arrangements of MuniFin – 80% of the country's municipal borrowing is from MuniFin (Vammalle & Bambalaite, 2021).

In Western Europe the uptake of LGFA has been late with the establishment of Agence France Locale (AFL) in France and the United Kingdom Municipal Bond Agency (UKMBA) in the United Kingdom (UK) in the late 2000s. The 2008 financial crisis necessitated the need for an LGFA in France to finance municipal infrastructure investments. The local government associations lobbied for the LGFA in 2010; the AFL began its operations in 2015 after its incorporation law was passed. Michel-Clupot and Rouot (2019: 110) observed that the AFL's operation is similar to that of a private bank because it places financial sustainability and market competitiveness above anything else. The criticism is that AFL tends to overlook smaller municipalities and fails to meet public sector objectives and results in funding access inequities. The UKMBA was founded in 2014 by local authorities and the Local Government Association, which also owns it, and lends to municipalities within the UK. The "collectivist" culture of Nordic countries differs from that of the UK; this has been what hampers the buy-in of the municipalities into the UKMBA (Harris, 2021). Grafe (2021: 214) substantiates the point of the UKMBA not having been successful because it competes with the Public Works Loan Board (PWLB), a national development bank (NDB) in the UK. The UKMBA provides inter-municipal borrowing skills to municipalities during negotiations with financiers (Grafe, 2021: 214). Though the UKMBA has not overtaken the PWLB in terms of market share, it has indirectly influenced the PWLB loan pricing to municipalities and made the PWLB lending rates more competitive (Harris, 2021).

In Oceania, New Zealand, through the Local Government Borrowing Act, established their LGFA in 2011 (NZLGFA). The local government system of New Zealand imposes strong fiscal rules; financial covenants determine the borrowing criteria, a borrowing municipality automatically becomes a member, and the NZLGFA has its own credit rating mechanism for municipalities over and above the market-based rating approaches (Vammalle & Bambalaite, 2021). The NZLGFA model is similar to the KommuneKredit in Denmark, and the NZLGFA has Councils that are shareholders in it; however, it lends to all municipalities, and there is no preferential rate provided to its shareholders (Vammalle & Bambalaite, 2021). Ehalaiye et al. (2017: 512) observe that after the 2008 financial crisis, a low rate of borrowing catalysed municipal infrastructure investments in New Zealand. In Australia a provincial LGFA (Local Government Finance Authority of South Australia) was established in 1984 and exclusively offers loans to municipalities in the South Australia state. There have been endeavours to establish a national LGFA (Grant & Woods, 2016:243).

In the Far East Asia, there are LGFA models in Japan and China. Under Japanese law, the Japan Finance Organisation for Municipalities (JFM) established a joint funding organisation to provide long-term, low-interest funds to local governments. The JFM makes up the public form of infrastructure finance in Japan; its major source of funding is the bonds it raises in the capital market (Bessho, 2017:306; Hirashima, 2018). According to Victor and Jihino (2021:134), local government bonds in Japan make up 10,2% of the overall municipal revenue sources. China's LGFAs have had the most coverage in literature owing to their scale and quantum. The LGFA in China has also been synonymous with the macroeconomic and fiscal risks associated with municipal debt (Shah, 2006: 437). Chinese municipalities have been exploring the option of using special purpose vehicles (SPVs) to bypass the borrowing restrictions that have been imposed on them by the national government since the mid-1980s (Clarke & Lu, 2017: 751). The literature of LGFAs in China pinpoints the 1994 fiscal reforms as critical for the alternative infrastructure financing instruments (Bao et al., 2024: 106964; Clarke & Lu, 2017: 751; Luo & Chen, 2019: 737; Lu & Son, 2013; Oi, 2023). The first official LGFA was the Shanghai Municipal Construction Investment and Development General Company in 1992; by the year 2000 other major cities were replicating this model. LGFAs boomed in China from the latter 1990s all the way into the 2000. Nevertheless, their proliferation has also resulted in astronomical levels of sub-national debt (Oi, 2023).

In 1994 the Chinese national government, through Provision 28 of Budgetary Law, stipulated that local government budgets must be balanced and at the same time introduced a standard tax regime which all but stripped subnational government taxation revenue streams (Luo & Chen, 2019:737). The fiscal reforms resulted in the national government being responsible for 20% of the public expenditure while the sub-national government was burdened with 80% of the responsibilities (Luo & Chen, 2019: 737). This period coincided with an aggressive national infrastructure investment programme (Bao et al., 2024: 106964).

To bridge the extensive vertical fiscal imbalances – misalignment between revenue and expenditure assignments resultant of the 1994 fiscal reforms (Clarke & Lu, 2017:751) – the national government reached a grand bargain with local government (Oi, 2023) to allow for municipalities to own limited liability companies, namely LGFAs. These acted as a form of state-owned entities and could allow municipalities to explore alternative borrowing to fund their infrastructure investment programmes (Clarke & Lu, 2017: 751). By 2009, 3200 sub-national government institutions had established 10321 LGFAs. To respond to the 2008 great recession, the Chinese national government launched a 4 trillion Yuan stimulus package; of which nominally only a third (1.8 trillion Yuan), would be spent by national government while the remainder would be driven by sub-national government (Luo & Chen, 2019:737). This was a critical point when national government encouraged the use of LGFAs by sub-national government for infrastructure investments to drive investments.

In China, LGFA debts are deemed “hidden” or off-balance sheet (Oi, 2023). Initially most of the LGFA borrowing was from commercial banks through loans the tenure of which was on average five years and a maximum of seven years with high interest rates while the projects they invested in had an average useful life of ten years (Bao et al., 2024: 106964). To address this project/loan mismatch, LGFAs shifted towards municipal bonds. The off-balance sheet nature of LGFAs meant that national government agencies were not fully aware of what was happening in these institutions. There was little interest in assessing their true institutional status. Serious assessment only began after 2009, when their debt levels started to rise significantly (Clarke & Lu, 2017: 751). The revenue base of Chinese local governments mainly comes from leased land. In 2018, this revenue made up 39.9% of their total income (Bao et al., 2024:106964). The use of land as collateral has exposed LGFAs and municipalities in China to risks of property market cycles, placing municipalities particularly at the mercy of reduced revenue projections with declines in land valuations (Lu & Sun, 2013). It is the collapse of the property market that eroded land-based financing on which the LGFAs relied for their revenue base, triggering the subnational debt crisis (Oi, 2023).

Organised Local Government – SALGA

The South African Local Government Association (SALGA) affords municipalities a strong collective voice as the singular organised local government association (Raga et al., 2012: 235). SALGA represents municipalities in parliament and other key intergovernmental structures such as the Presidential Coordinating Committee and the Budget forum (Hachard, 2022: 102). The Constitution of the country in Section 163 recognises organised local government consultative responsibilities and rights (Constitution of RSA, 1996). The Organised Local Government Act (OLGA) of 1997 recognises the establishment of representative bodies i.e. SALGA (South African Government, 1997). The Municipal Systems Act (MSA) tasks SALGA to work to create common approaches for local government as a separate sector of government. SALGA should also encourage municipalities to work together, help each other, and share resources. Finally, SALGA should also look for solutions to problems that affect local government in general and make it easier for all parties to follow the rules of cooperative governance and intergovernmental relations (South African Government, 2000). SALGA has in the past attempted to explore municipal pooled financing (MPFM) for the Gauteng City Region (Leseane, 2015: 30). However, this was before the municipal borrowing policy revision and updates which provided more clarity on the MPFM (PFMB, 2017). In most of the countries with established LGFAs and those with recently established LGFAs, local government associations were at the forefront of both the conceptualisation and operations of LGFAs. For example, the United Kingdom Local Government Association developed a business case for the UKMBA in 2014, and the document formed the basis for the establishment of the LGFA (Ferralazzo, 2021: 73).

Summation

LGFAs can be referred to as SDBs (Finance in Common, 2025). Empirical literature reveals the role PDBs have played in responding to periods of critical juncture, such as global financial crises. Most LGFAs have been established as a response to major crises and the need to catalyse infrastructure finance. In considering the institutional make-ups of LGFAs, finance theories aligned to renewable energy markets are critical (Geddes 2020; Schoenmaker & Schramade, 2019). A market with a small number of participants is likely to be inefficient (Schoenmaker & Schramade, 2019).

The introduction of a LGFA into the South African municipal borrowing market has the potential to pool green bonds with the aim of solving the policy challenge of catalysing secondary markets (PFMB, 2017). Bibac (2024: 103482), in his outlining of the actors, instruments, and policy of green finance for energy transitions, identifies green bonds as the biggest and dominant green finance instrument. South African municipalities have a proof of concept for issuing green bonds with the successful successive issuances of the City of Johannesburg in 2014 and of the City of Cape Town in 2017 (Partridge & Medda, 2019: 44). The gap LGFAs fill globally and potentially for South Africa is not just the expansion of secondary municipal bond markets, a challenge articulated in the PFMB (2017), but also the competitive provision of lower costs of borrowing to municipalities. Literature also outlines how successful LGFAs are country-specific and how the type of government (federal or unitary) affects the ability to start national LGFAs. For example, Australia, Canada, and the US all have federal governments and have only successfully run state/province LGFAs. China's model of LGFA differs from the norm and though it has been widely reported as potentially detrimental to the country's macroeconomic stability (Oi, 2023), LGFAs in countries with fiscal federalism features and clear municipal revenue assignments are stable SDBs. Though South Africa's extent of fiscal federalism is on par with Nordic countries and New Zealand, for example, it faces many legacy and municipal institutional challenges which might hamper the successful launch of a LGFA.

RESEARCH METHODOLOGY AND METHODS

The study's methodology was qualitative, applying document analysis to different institutional cases. The study conducted a content analysis of annual reports of LGFAs and SALGA as at 2023-year end with the narrative lens literature review aspects. The annual reports were scanned for incorporation dates, ownership structures, and what the institutional mission, vision, and philosophy are. Credit ratings, the loan book, and the extent of their climate finance and sustainability endeavours were also assessed. Analysing annual reports provides options to observe institutional performance and behaviour, governance, and stakeholder management (Edgar et al., 2028: 1566; Ditlevsen, 2012: 379; Laskin, 2018: 338). One LGFA was selected from each continent or region, including KommuniKredit, Municipal Finance Authority of British Columbia (MFABC), New Zealand Local Government Funding Agency (NZLGFA), Affärsverket Svenska Kommunförbundet Finans AB (AFL) and JFM. Local currency has been US dollar denoted for 2023.

RESEARCH RESULTS

KommuniKredit (2023)

This is the oldest operating LGFA established in 1899; it celebrated 125 years in 2024. It states in its annual report that its relevance is still as applicable today as it was in 1899 and specifically funds local growth and green transition, especially transition from fossil fuel to electric vehicles. It is owned by all its members which include the 98 municipalities and five regions in Denmark. All the members are jointly and severally liable for KommuKredit's liabilities, meaning that they are all responsible for the debt. The LGFA focuses on providing equal opportunities for sustainable growth and affordable financing to municipalities at the "lowest cost possible". Its ratings are Moodys – Aaa and Standard and Poor – AAA owing to its low-risk business model, strong capital base and high-quality assets coupled with the joint liability of its members. Its climate and sustainability strategies in 2023 generated green loans amounting to \$518 million, while total debt book for 2023 was \$31,57 billion.

MFABC (2023)

Established in 1970, the MFABC is collectively owned by municipalities in the state of British Columbia. It aims through its three pillars to provide low-cost borrowing, sustainable investments and educational products to its municipal members. It has consistently attained high creditworthiness profiles from established credit rating agencies over the years (AAA/AA+). The MFABC incorporates Environmental, Social and Governance (ESG) principles into its plans. Its Fossil Fuel Free Diversified Multi-asset Class ("FFF DMAC") fund that offers fossil fuel free investments was launched in September 2023. Its debt book for 2023 was \$4,14 billion. There were no specific climate denoted loans in its annual report; however, it does make mention of the ESG lens in some of its loans.

NZLGFA (2023)

Incorporated in 2011, 80% of this LGFA is owned by municipalities and 20% by national government. Legislation stipulates that only local and national government may own the NZLGFA. Its aims are to optimise borrowing terms and conditions of municipalities and support sustainable municipal infrastructure. Its credit ratings are AAA from Standard and Poor ratings and Fitch Ratings on local currency, and AA+ from Fitch Ratings on foreign currency. Its ratings are on par with sovereign ratings and signal low credit risk and issuing of bonds at competitive interest rates. The NZLGFA launched the Climate Action Loans (LAN) in 2022, providing municipalities with \$323 million to meet emission reduction targets. The Green Social and Sustainability (GSS) lending programme funded \$183 million in 2023 for renewable energy initiatives. A Sustainable Financing Bond Framework was established in 2023, resulting in an issuance of \$982 million in sustainable bonds. Overall, climate loans for 2023 amounted to \$506 million while the total debt book of the NZLGFA was \$11,03 billion.

AFL (2023)

“The bank that changes banks” was officially created in 2013 and is owned by French municipalities. Its aim is to operate as a subnational development bank focused on responsible finance and to act as a cooperative and transparent partner that empowers municipalities. Its shareholders are the 776 local authorities. Its credit ratings in 2023 were strong with Moody’s at Aa3 and Standard and Poor at AA-, which is reflective of the AFL’s robust governance and minimal risk model. The bank recognises that its municipal customers are intentional about their ecological/energy transition and has devised sustainable bonds. The AFL loaned \$2.06 billion to municipalities in 2023. It has placed green category requirements such as renewable energy projects into its loan applications.

JFM (2023)

The JFM was established in 2008 and is wholly owned by Japanese municipalities. Its aims are supporting municipal fiscal soundness, providing low interest loans and bonds, strengthening market confidence and being a reliable partner in local government financing. Its strong credit ratings include Standard and Poor – A+, Moody’s – A1 and Ratings and Investments – AA+. JFM climate and sustainability initiatives include issuances of green bonds (ESG bonds), establishment of sustainability committee and alignment of programmes to SDGs. In February 2023 JFM issued green bonds equivalent to \$541 million. Its total outstanding debts as of 2023 amounted to \$151 billion.

SALGA (2023)

The SALGA was incorporated in 1998 and is registered as an employer body for local government. The aim of the organisation is to represent the interests of municipalities across the intergovernmental framework. It is member based, with most of its revenue derived from membership levies and a small portion from grants. Its governance and performance indicators have been high with its 11th clean audit recorded in the annual report and a 90% average achievement of its performance targets over time. In 2023 SALGA provided support on JET programmes such as community awareness of JET impact and incorporation of JET projects in municipal Integrated Development Planning (IDP) guidelines.

DISCUSSION

Key themes that emerge from this study include fiscal federalism, market efficiency of capital markets, institutional theory, and public policy. The findings of this study demonstrate the significant role LGFAs play globally in supporting municipal infrastructure investments, particularly within the context of energy transitions. The results affirm that LGFAs reduce borrowing costs and improve access to capital markets, thereby addressing the funding constraints municipalities face. The experiences of Nordic countries, New Zealand, and Japan highlight key success factors, including strong municipal governance frameworks, pooled municipal credit mechanisms, and the integration of sustainability-oriented financial instruments. Several trends stand out from the global analysis of LGFAs. Most of these LGFAs are municipality-owned and have joint liability for agency liabilities. This structure ensures all municipalities have a strong commitment to financial stability and sustainability. There is an emphasis among the LGFAs to focus on sustainable financing with debt books that have varying portions of green finance instruments and climate-focused lending.

Most LGFAs have high credit ratings because of their low-risk business models and highly capitalised structures; this results in their issuing bonds at competitive rates. While there are core principles that apply to LGFA globally, there are also regional differences.

A key finding from the research is the importance of an enabling regulatory and policy framework for the establishment of an LGFA—a feature that can be argued to exist in South Africa. The case studies examined show that for LGFAs to work, there needs to be strong cooperation amongst municipalities, clear governance structures, and risk-mitigation strategies. As SALGA explores the agency, it will need to establish and test these elements. The research also highlights the role of an LGFA as not only providing financial resources but also acting as a knowledge hub, assisting municipalities with financial planning, sustainability initiatives, and capacity building. However, challenges unique to South Africa’s municipalities, such as limited institutional capacity and fiscal decentralisation imbalances, could impede the successful implementation of a similar model. Issues such as political influence, market transparency, and capacity for managing pooled finance mechanisms require careful consideration. The study also aligns with previous research by Anderson et al. (2010) and Todd and McCauley (2021), confirming that while capital availability is not inherently limited, project bankability and effective credit pooling mechanisms remain key enablers for successful implementation. The prevalence of municipal financial distress, weak creditworthiness, and governance failures could undermine the credibility and sustainability of an LGFA in South Africa. Additionally, lessons from the Chinese experience suggest that inadequate regulatory oversight and excessive reliance on off-balance sheet financing mechanisms could increase fiscal risks.

A critical question would be whether SALGA should be a LGFA. The role of SALGA is feasible as facilitator of this initiative (similar to its peers’ approach in the UK and France), given its mandate to represent and support local governments. SALGA’s engagement in promoting climate finance awareness and integrated development planning further underscores the necessity of its involvement in launching an LGFA tailored to South African municipal needs. This model would need to be adapted to local circumstances, particularly regarding enhancing municipal borrowing capacity, governance structures, and sustainability alignment. Finally, SALGA’s delisting as a Public Finance Management Act (PFMA) institution and its now being a private company (South African Government, 2024), as well as its role as the secretariat of the Municipal JET Council (The Presidency, 2023), further legitimise its position to either advocate for the LGFA or become one.

CONCLUSION

The establishment of an LGFA in South Africa presents a viable solution to the financing challenges faced by municipalities in implementing the JETIP. International examples demonstrate that LGFAs can significantly enhance access to affordable infrastructure financing while promoting sustainable development. Despite the differences in governance structures between South Africa and other regions, the principles of fiscal federalism and collective municipal participation provide a foundation upon which a South African LGFA could be built. Key findings indicate that the success of such an initiative would depend on SALGA’s leadership in advocating for the LGFA, the creation of robust governance and credit risk frameworks to establish the LGFA, and the ability to attract capable financial professionals to work in it. Ultimately, a well-designed LGFA can strengthen municipal capacities to deliver critical infrastructure while aligning with national energy transition objectives.

RECOMMENDATIONS

Determinants	Recommendation
<p>1. Establish a South African LGFA</p>	<p>SALGA, in collaboration with national and municipal stakeholders, should lead the facilitation an exploration for the development of a national LGFA. This institution should benchmark international best practices while addressing South African-specific challenges, including governance capacity and credit risk management.</p>
<p>2. Develop pooled financing mechanisms</p>	<p>Municipalities with similar credit profiles should collaborate through pooled financing initiatives to enhance access to capital markets. This mechanism will lower borrowing costs and provide municipalities with the financial resources needed for large-scale infrastructure investments.</p>
<p>3. Enhance municipal capacity building</p>	<p>Investments in training and professional development for municipal finance officers are crucial to ensure effective engagement with capital markets. SALGA should offer targeted programmes to strengthen municipal capacity in infrastructure investments and project preparation.</p>
<p>4. Integrate climate finance</p>	<p>The LGFA should adopt a robust framework for sustainability and climate finance, including the issuance of green and sustainability-linked bonds. This will enable municipalities to align their infrastructure investments with the objectives of the JETIP and the broader sustainable development agenda.</p>
<p>5. Strengthen governance and transparency</p>	<p>Transparent governance structures, supported by strong oversight and intergovernmental coordination, are critical for the success of the LGFA. Clear roles, responsibilities, and performance indicators should be established to ensure accountability and effectiveness.</p>
<p>6. Engage in stakeholder consultations</p>	<p>Continuous engagement with municipal stakeholders, financial institutions, and civil society is essential to build consensus and ensure the LGFA meets the diverse needs of municipalities across South Africa.</p>

REFERENCES

- AFL. 2023. *Business review and sustainable development report*. Available: file:///C:/Users/jmatsie/Downloads/business-overview_2023_-en.pdf [2025, January 25].
- Akapelwa, K. and Mwange, A. 2023. Theories of local government financing: A comprehensive theoretical review. *International Journal of Multidisciplinary Research and Growth Evaluation*, 4(5), pp.765-773.
- Anderson, N., Bailey, S.J. and Pautz, H. 2010. Local government funding agencies: Lessons from success and failure. In S.J. Bailey, P. Valkama and Anttiroiko, A.-V. (Eds.). *Innovations in financing public services: Country case studies*, pp.114-134.
- Ang, A., Bhansali, V. and Xing, Y. 2010. *Build America Bonds (No. w16008)*. National Bureau of Economic Research. Available: <https://www.nber.org/papers/w16008> [2025, January 10].
- Bibac, M. 2024. Green finance in the global energy transition: Actors, instruments, and politics. *Energy Research & Social Science*, 111, p.103482.
- Baker, L. and Phillips, J. 2018. Tensions in the transition: The politics of electricity distribution in South Africa. *Environment and planning. C, Politics and Space*, 37(1), pp. 177-196.
- Baker, L. 2015. Renewable energy in South Africa's minerals-energy complex: A 'low carbon' transition? *Review of African Political Economy*, 42(144), pp.245-261.
- Bao, H.X., Wang, Z. and Wu, R.L. 2024. Understanding local government debt financing of infrastructure projects in China: Evidence based on accounting data from local government financing vehicles. *Land Use Policy*, 136, p.106964.
- Bernal, A. and Ablien, J.D. 2023. A review on the innovation of renewable energy system. *International Journal of Computer Engineering in Research Trends*, 10(2), 45-53.
- Bessho, S.I. 2017. A case study of central and local government finance in Japan. In N. Yoshino and P.J. Morgan (Eds.). *Central and local government relations in Asia* (pp. 306-332). Edward Elgar Publishing.
- Bohlmann, H.R., Bohlmann, J.A., Chitiga-Mabugu, M. and Inglesi-Lotz, R. 2023. Just energy transition of South Africa in a post-COVID era. *Sustainability*, 15(14), pp. 10854.
- Brooks, M.J., Du Clou, S., Van Niekerk, W.L., Gauché, P., Leonard, C., Mouzouris, M.J., Meyer, R., Van der Westhuizen, N., Van Dyk, E.E. and Vorster, F.J. 2015. SAURAN: A new resource for solar radiometric data in Southern Africa. *Journal of Energy in Southern Africa*, 26(1), pp. 2-10.
- Chen, Z. and Shang, N. 2024. Reliability-constrained capacity market design with high proportions of renewable energies. *Frontiers in Energy Research*, 11. <https://doi.org/10.3389/fenrg.2023.1335363>
- City of Cape Town. 2018. *Day zero likely to happen – new emergency measures*. Statement by the city's executive mayor, Patricia De Lille. Available: <https://resource.capetown.gov.za/documentcentre/Documents/Speeches%20and%20statements/18%20January%2018-%20Day%20Zero%20new%20emergency%20measures.pdf> [2025, April, 30].
- Constitution of the Republic of South Africa. 1996. *Government communications*. Government Printers: Pretoria.
- Clarke, D. and Lu, F. 2017. The law of China's local government debt: Local government financing vehicles and their bonds. *The American Journal of Comparative Law*, 65(4), pp.751-798.
- Cunial, S.L. 2021. Transitions for whom? Political alignment and subsidies for solar energy projects in rural Colombian municipalities. *Latin American Policy*, 12(2), pp. 300-332.
- Dahlke, S., Sterling, J. and Meehan, C. (Eds.). 2021. Policy and market drivers for advancing clean energy. *Advances in clean energy technologies*, pp. 451-485. <https://doi.org/10.1016/b978-0-12-821221-9.00012-8>
- Dalei, N. N. and Joshi, J. M. 2023. Analysis of the market for renewable energy sources in the Asia-Pacific region. *Technology Audit and Production Reserves*, 1(4(69)), pp. 25-29. <https://doi.org/10.15587/2706-5448.2023.274273>
- Devas, N., Alam, M., Delay, S., Koranteng, R. and Venkatachalam, P. 2008. *Financing local government*. <https://doi.org/10.14217/9781848590076-en>.
- Dithebe, K., Aigbavboa, C. and Thwala, D.W. 2019, May. An appraisal of water infrastructure projects' financing challenges in South Africa. In *Proceedings of the 10th Nordic conference on construction economics and organization*, 2, pp. 103-110). Emerald Publishing.
- Edgar, C.V., Beck, M. and Brennan, N.M. 2018. Impression management in annual report narratives: The case of the UK private finance initiative. *Accounting, Auditing & Accountability Journal*, 31(6), pp.1566-1592.
- Egli, F., Polzin, F., Sanders, M., Schmidt, T., Serebriakova, A. and Steffen, B. 2022. Financing the energy transition: four insights and avenues for future research. *Environmental Research Letters*, 17(5), p. 51003.
- Ehalaiye, D., Botica-Redmayne, N. and Laswad, F. 2017. Financial determinants of local government debt in New Zealand. *Pacific Accounting Review*, 29(4), pp. 512-533.

- Elmahdi, A. and Wang, L. 2022. Water asset transition through treating water as a new asset class for paradigm shift for climate–water resilience. *Climate* (Basel), 10(12), pp. 191.
- Fama, E.F. 1970. Efficient capital markets. *Journal of Finance*, 25(2), pp.383-417.
- Ferlazzo, E. 2021. The financialization of local authorities' debt as a solution to the financial shortage: The genesis of Agence France Locale. *Revue Francaise de Socio-Economie*, 27(2), pp.73-99.
- Finance in Common. 2025. *Public development banks. A reference book – for consultation*. <https://t.co/erdE3STUvs>
- Geddes, A. 2020. *Green state investment banks: Their role in mobilising finance to accelerate the energy transition and the politics behind their establishment and design* (Doctoral dissertation, ETH Zurich).
- Gilbert, M. and Pike, R. 1995. Credit enhancement of municipal debt. *Canadian Public Administration*, 38(2), pp. 195-203.
- Glasser, M.D. and Wright, J. 2020. South African municipalities in financial distress: What can be done? *Law, Democracy & Development*, 24(1), pp.413-441.
- Grafe, F. 2020. Finance, water infrastructure, and the city: Comparing impacts of financialization in London and Mumbai. *Regional Studies, Regional Science*, 7(1), pp. 214-231.
- Grant, B. and Woods, R. 2016. Reforming Australia's fiscal federalism: Should municipal bond banks play a greater role? *Australasian Journal of Regional Studies*, 22(2), pp. 243-262.
- Grove-Ditlevsen, M. 2012. Revealing corporate identities in annual reports. *Corporate Communications: An International Journal*, 17(3), pp.379-403.
- Hachard, T. 2022. Capacity, voice and opportunity: advancing municipal engagement in Canadian federal relations. *Commonwealth Journal of Local Governance*, (27), pp.102-124.
- Hall, S., Foxon, T. J. and Bolton, R. 2015. Investing in low-carbon transitions: Energy finance as an adaptive market. *Climate Policy*, 17(3), 280-298. <https://doi.org/10.1080/14693062.2015.1094731>.
- Harris, T.E. 2021. *Municipal debt finance and mutualisation* (Doctoral dissertation, Queen Mary University of London).
- Hirashima, A. 2018. Japan's local government debt control system. *IndraStra Global*, (7), p.5. Available: https://www.ssoar.info/ssoar/bitstream/handle/document/58328/ssoar-indrastraglobal-2018-7-hirashima-Japans_local_government_debt_control.pdf?sequence=1&isAllowed=y&lnkname=ssoar-indrastraglobal-2018-7-hirashima-Japans_local_government_debt_control.pdf [2025, January 05].
- Hoppe, T., Graf, A., Warbroek, B., Lammers, I. & Lepping, I. 2015. Local governments supporting local energy initiatives: Lessons from the best practices of Saerbeck (Germany) and Lochem (The Netherlands). *Sustainability*, 7 (2), pp. 1900-1931.
- Hoppe, T. and Miedema, M. 2020. A governance approach to regional energy transition: Meaning, conceptualization and practice. *Sustainability*, 12(3), pp. 915.
- Ilo, O.P., Nkomo, S.L., Mkhize, N.M. and Simatele, M.D. 2023. The contribution of pyrolysis of water hyacinth to South Africa's low-carbon and climate-resilient economy transition: A mini review. *Environmental and Climate Technologies*, 27(1), pp. 103-116.
- Isah, A., Dioha, M., Debnath, R., Abraham-Dukuma, M. and Butu, H. 2023. Financing renewable energy: Policy insights from Brazil and Nigeria. *Energy Sustainability and Society*, 13(1). <https://doi.org/10.1186/s13705-022-00379-9>.
- JFM Perspectives 2023. *2023 Annual Report*. Available: <https://www.jfm.go.jp/en/investors/financial/c24f5t00000002hx-att/jfm-ar2023.pdf> [2025, January 25]
- Juuti, P.S., Juuti, R.P. and McDonald, D.A. 2023. Boldly boring: Public banks and public water in the Nordic region. In T. Marois, D.A. McDonald and S.S pronk (Eds.). *Public banks, public water* (pp. 119-137). Routledge.
- Kim, J.W. and Lee, J.S. 2021. Greening energy finance of multilateral development banks: Review of the world bank's energy project investment (1985–2019). *Energies*, 14(9), p.2648.
- KommuneKredit. (2023). *KommuneKredit Annual Report 2023*. Available file:///C:/Users/jmatsie/Downloads/kommunekredit_ar2023_uk.pdf [2025, January 25]
- Laskin, A.V. 2018. The narrative strategies of winners and losers: Analysing annual reports of publicly traded corporations. *International Journal of Business Communication*, 55(3), pp.338-356.
- Ledger, T. and Rampedi, M. 2020. *The end of the road. A critical review of the local government fiscal framework*. <https://pari.org.za/end-of-the-road-a-critical-review-of-the-local-government-fiscal-framework/>
- Leseane, L. 2015. Municipal pooled financing mechanism. *IMFO: Official Journal of the Institute of Municipal Finance Officers*, 16(1), pp.30-34.
- Luo, H. and Chen, L. 2019. Bond yield and credit rating: Evidence of Chinese local government financing vehicles. *Review of Quantitative Finance and Accounting*, 52(3), pp.737-758.
- Lu, Y. and Sun, T. 2013. *Local government financing platforms in China: A fortune or misfortune?* (Working

- paper 243). International Monetary Fund. <https://doi.org/10.5089/9781475599671.001>
- Matsie, M.J. 2023. *Assessment of municipal borrowing policy framework for improved infrastructure financing*. University of the Witwatersrand, Johannesburg. Available: <https://wiredspace.wits.ac.za/items/32eb3b05-3b7a-4bcb-939b-c169280ad048>.
- Mayr, D., Schmid, E., Trollip, H., Zeyringer, M. and Schmidt, J. 2015. The impact of residential photovoltaic power on electricity sales revenues in Cape Town, South Africa. *Utilities Policy*, 36, pp. 10-23.
- Mazzucato, M. and Semieniuk, G. 2018. Financing renewable energy: Who is financing what and why it matters. *Technological Forecasting and Social Change*, 127, pp.8-22.
- Medda, F.R. and Cocconcelli, L. 2018. Municipal bonds as a means of accelerating local infrastructure investment. Proceedings of the Institution of Civil Engineers. *Management, Procurement and Law*, 171(5), pp. 220-227.
- Michel-Clupot, M. and Rouot, S. 2019. Contribution of textual analysis by ALCESTE software to determine dimensional publicness and public values: An application on two banks of the French local authorities. In A.P. Costa, L.P. Reis and A. Moreira (Eds.). *Computer supported qualitative research: New trends on qualitative research* (pp. 110-116). Springer International Publishing.
- Mlambo, D.N. and Maserumule, M.H. 2024. Constitutional and legislative frameworks for the local sphere of government in South Africa: Analytical and interpretive perspective. *Insight on Africa*, 16(2), pp. 211-229.
- Mmako, M.M. and Maribe, P.P. 2024. The influence of infrastructure financing on rural municipalities in Limpopo province, South Africa: Issue for consideration. *International Journal of Social Science Research and Review*, 7(4), pp.366-377.
- Müller, F., Neumann, M., Elsner, C. and Claar, S. 2021. Assessing African energy transitions: renewable energy policies, energy justice, and SDG 7. *Politics and Governance*, 9(1), pp.119-130.
- Municipal Finance Authority of British Columbia (MFABC). 2023. *Annual Report 2023*. Available https://mfa.bc.ca/sites/default/files/Investors/Annual%20Report/2023_mfa_annual_report_-_web.pdf [2025, January 25].
- Navarro-Galera, A., Ruiz-Lozano, M., Tirado-Valencia, P. and Ríos-Berjillos, A.D. L. 2017. Promoting sustainability transparency in European local governments: An empirical analysis based on administrative cultures. *Sustainability*, 9(3), pp. 432.
- Nel, E., Marais, L. and Mqotyana, Z. 2023. The regional implications of just transition in the world's most coal-dependent economy: The case of Mpumalanga, South Africa. *Frontiers in Sustainable Cities*, 4, p.1059312.
- New Zealand LGFA. 2023. *LGFA Annual Report 2023*. Available: https://www.lgfa.co.nz/sites/default/files/2023-09/LGFA_AnnualReport_2023-FINAL.pdf [2025, January 25]
- Nsafon, B.E.K., Same, N.N., Yakub, A.O., Chaulagain, D., Kumar, N.M. and Huh, J. 2023. The justice and policy implications of clean energy transition in Africa. *Frontiers in Environmental Science*, 11.
- Oi, J. 2023. China's local government debt: Fallout from a perfect storm. Available: <https://www.thechinastory.org/chinas-local-government-debt-fallout-from-a-perfect-storm/> [2025, January 05]
- Omar, Z., Morgan, C., Ayala-Robles, A. and Letsoko, B. 2024. Are public finance institutions financing a (truly) just energy transition in Southern Africa? *A Sustainability Policy Assessment*. Available: <https://www.fairfinancesouthernafrica.org/wp-content/uploads/2024/11/Financing-Fairly-2024.pdf>
- Partridge, C. and Medda, F. 2019. The evolution of pricing performance of green municipal bonds. *Journal of Sustainable Finance & Investment*, 10(1), pp.44-64. <https://doi.org/10.1080/20430795.2019.1661187>
- Policy Framework for Municipal Borrowing, 2017 update, 2017. Available: [file:///C:/Users/jmatsie/Downloads/Updated%20Municipal%20Borrowing%20Policy%20Framework%20\(7\).pdf](file:///C:/Users/jmatsie/Downloads/Updated%20Municipal%20Borrowing%20Policy%20Framework%20(7).pdf) [2024, January 22].
- Polzin, F. and Sanders, M. 2020. How to finance the transition to low-carbon energy in Europe? *Energy Policy*, 147, p.111863.
- Presidential Climate Commission. 2024. *The presidential climate commission's recommendations on a just transition financing mechanism*. (A Presidential Climate Commission Report). Available: <https://pcccommissionflo.imgix.net/uploads/images/PCC-JTFM-Recommendations-Report.pdf> [2025, April 30]
- Qadir, S. A., Al-Motairi, H., Tahir, F. and Al-Fagih, L. 2021. Incentives and strategies for financing the renewable energy transition: A review. *Energy Reports*, 7, pp. 3590-3606. <https://doi.org/10.1016/j.egy.2021.06.041>
- Rae, G. and Erfort, G. 2020. Offshore wind energy - South Africa's untapped resource. *Journal of Energy in Southern Africa*, 31(4), pp. 26-42.
- Raga, K., Taylor, J.D. and Gogi, A. 2012. Community development workers (CDWs): A case study of the Bitou Local Municipality. *TD: The Journal for Transdisciplinary Research in Southern Africa*, 8(2),

- pp.235-251.
- Raimo, N., L'Abate, V., Marrone, A. and Vitolla, F. 2024. Toward sustainable cities: Assessing drivers of SDG performance in Italian municipalities. *Sustainable Development*, 33(1), pp.554-564.
- Reddy, P.S. 2016. The politics of service delivery in South Africa: The local government sphere in context. *Journal for Transdisciplinary Research in Southern Africa*, 12(1), pp. e1-e8.
- Robbins, M.D. and Kim, D. 2003. Do state bond banks have cost advantages for municipal bond issuance? *Public Budgeting & Finance*, 23(3), pp. 92-108.
- Schoenmaker, D. and Schramade, W. 2019, October. Financing environmental and energy transitions for regions and cities: Creating local solutions for global challenges. *Paper for an OECD/EC Workshop on financing environmental and energy transitions*. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3599981.
- Sefolo, O., Daniyan, I., Ramdass, K., Akinbowale, O.E., Zerihun, M.F. and Mashigo, P. 2024, April. Impact of climate change and the mitigation strategies in South Africa: A survey of literature. In *2024 International Conference on Science, Engineering and Business for Driving Sustainable Development Goals (SEB4SDG)*, pp. 1-14.
- Shah, A. 2006. Fiscal decentralization and macroeconomic management. *International Tax and Public Finance*, 13, pp.437-462.
- Shipalana, P. 2020. *Exploring pooled finance for South Africa*. Available: <https://saiia.org.za/wp-content/uploads/2020/04/Policy-Insight-82-Shipalana.pdf> [2024, December 22].
- Sitishe, N., Ntshangase, B.A., Kloper, R., Lubbe, S. and Msosa, S.K. 2023. An analysis of the financial viability of municipalities in Free State Province: The case of Mangaung Metro Municipality. *SocioEconomic Challenges*, 7(3), pp.184-199.
- South African Government, 1997. *Organised Local Government Act 52 of 1997*. Available: <https://www.gov.za/documents/organised-local-government-act> [2025, January 25]
- South African Government. 2000. *Local Government: Municipal Systems Act 32 of 2000*. Available <https://www.gov.za/documents/local-government-municipal-systems-act> [2025, January 25]
- South African Government. 2024. *Public Finance Management Act: Listing and delisting of public entities*. Available: <https://www.gov.za/documents/notices/public-finance-management-act-listing-and-delisting-public-entities-01-oct-2024> [2025, January, 25]
- South African Local Government Association. 2023. *SALGA Annual Report 2022-2023*. SALGA. <https://www.salga.org.za/Documents/Documents%20and%20Publications/Annual%20Reports/SALGA%20Annual%20Report%202022-2023.pdf> [2025, January 25]
- The Presidency. 2023. *Just Energy Transition Implementation Plan 2023–2027*. Pretoria: The Presidency.
- Todd, I. and McCauley, D. 2021. Assessing policy barriers to the energy transition in South Africa. *Energy Policy*, 158, p.112529.
- Trail, H. and Cumbers, A. 2023. The state of municipal energy transitions: Multi-scalar constraints and enablers of Europe's post-carbon energy ambitions. *European Urban and Regional Studies*, 30(2), pp.93-106.
- Trail, H., Cumbers, A. and Gray, N. 2021. *The state of European municipal energy transition: An overview of current trends*. University of Glasgow: Glasgow, UK.
- Vammalle, C. and Bambalaite, I. 2021. *Funding and financing of local government public investment: A framework and application to five OECD countries*. Available: <https://www.sipotra.it/wp-content/uploads/2021/03/Funding-and-financing-of-local-government-public-investment-A-framework-and-application-to-five-OECD-countries.pdf> [2025 January, 15].
- Van de Putte, A., Campbell-Holt, A. and Littlejohn, G. 2020. Financing the sustainable energy transition. In M. Hafner and P. Tagliapietra (Eds.). *The geopolitics of the global energy transition*. Cham: Springer International Publishing.
- Victor, K. & Jihino, L. 2021. Local government in Japan. In R.J. Pekkanen and S.M. Pekkanen (Eds.). *The Oxford handbook of Japanese politics*, pp.134-158. Oxford: Oxford. 134 – 158
- Yanosek, K. 2012. Policies for financing the energy transition. *Daedalus*, 141(2), pp. 94-104.