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A Comparative Study of the Policy Advice Systems in Brazil, Kenya, India and South Africa: A Consolidated Report

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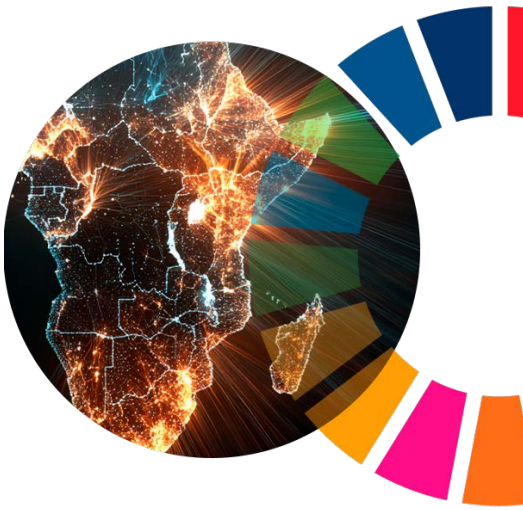

Abbreviations

AGU	Office of the Attorney General of the Union
AI	Artificial Intelligence
AIM	Atal Innovation Mission
AIR	Regulatory Impact Analysis system
AU	African Union
BMZ	German Federal Ministry of Economic Cooperation and Development
CBGA	Centre for Budget and Governance Accountability
CBK	Central Bank of Kenya
CGU	Office of the Comptroller General of the Union
CINCO	The Behavioural and Insight Unit within the Ministry of Management and Innovation
CIPIT	Centre for Intellectual Property and Information Technology Law
CNI	National Confederation of Industry
CPI	Climate Policy Initiative
CPR	Centre for Policy Research
CPU	Office of the Comptroller General
CSIR	Council for Scientific and Industrial Research
CSs	Cabinet Secretaries
CSO's	Civil Society Organisations
DCDT	Department of Communications and Digital Technologies
DG	Director General
DMEO	Development Monitoring and Evaluation Office
DPDP	Digital Personal Data Protection
DPI	Digital Public Infrastructure
DPME	Department of Planning, Monitoring and Evaluation
DSI	Department on Science and Innovation
EBIA	Brazilian Artificial Intelligence Strategy
ETA	Electronic Travel Authorisation
EU	European Union
FCDO	Foreign, Commonwealth, and Development Office (United Kingdom)
FGV	Getulio Vargas Foundation

FOSAD	Forum of South African Directors General
GIS	Geography Environmental System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPSDD	Global Partnership for Sustainable Development Data
GTMI	GovTech Maturity Index
HLAB	High-Level Advisory Board
HSRC	Human Sciences Research Council
IBM	International Business Machines Corporation
ICRIER	Indian Council for Research on International Economic Relations
ICT	Information Communication Technology
IDRC	International Development Research Centre (Canada)
IEA	Institute of Economic Affairs
IPE	Institute for Public Enterprise
IPEA	Institute for Applied Economic Research
ITA	International Trade Administration
ITS Rio	Institute for Technology and Society
KANU	Kenya African National Union
KEMRI	Kenya Medical Research Institute
KICTA	Kenya Information and Communication Technology Action Network
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
KODI	Kenya Open Data Initiative
KRA	Kenya Revenue Authority
KSG	Kenya School of Government
KTTF	Kenya Think Tank Forum
LLM	Large Language Model
MDA's	Ministries, Departments, Agencies
MDAC's	Ministries, Departments, Agencies and Counties
MEC	Member of the Executive Council
MGI	Ministry of Management and Innovation in Public Services
MINMECS	Minister and Members of the Executive Council
NACI	National Advisory Council on Innovation
NACOSTI	National Committee for Science, Technology and Innovation
NARC	National Rainbow Coalition
NDAP	National Data Analytics Platform
NDP	National Development Plan
NIPFP	National Institute for Public Finance and Policy
NITI Aayog	National Institution for Transforming India

NLP	Natural language processing
NPC	National Planning Commission
NPDF	National Policy Development Framework
NRF	National Research Foundation
NSC	National Security Council
NSI	National System of Innovation
NTSA	National Transport and Safety Authority
OECD	Organisation for Economic Co-operation and Development
OGP	Open Government Partnership
OSS	Open-source software
PAC	Public Affairs Centre
PAC's	Policy Advisory Committees
PAS	Policy Advice/Advisory Systems
PASU	Presidential Policy and Strategy Unit
PBO	Parliamentary Budget Office
PBIA	Brazilian Artificial Intelligence Plan 2024–2028
PCAS	Policy Coordination and Advisory Service
PMFBY	Pradhan Mantri Fasal Bima Yojana
PPP	Public Private Partnerships
PRS	Policy and Research Services / Policy Research Services Unit
PSC	Public Service Commission
SAAPG	Sub-secretariat for Analysis and Governmental Policies
SAE	Special Secretariat for Strategic Affairs
SAJ	Sub-secretariat for Legal Affairs
SAPS	South African Policy Services
SARS	South African Revenue Service
SDG	Sustainable Development Goals
SECOM	Special Secretariat for Social Communication in the Ministry of Communications
SEIAS	Socio-Economic Impact Assessment System
SGD	The Secretariat of Digital Government
SISP	Administration System of Information Technology Resources of the Federal Executive Branch
SLMs	Small Language Models
StatsSA	Statistics South Africa
TCU	Federal Court of Accounts
THRIP	Technology and Human Resources for Industry Programme
UN SDGs	United Nations Sustainable Development Goals
UPI	Unified Payments Interface
VDS	Vision 2030 Delivery Secretariat

Executive summary

Introduction

Policymaking is a complex process involving various actors and procedures, and sometimes differing interests are present. Moreover, policy outcomes are uncertain and do not always satisfy all interest groups. These factors increase the importance of policy advice and Policy Advisory Systems (PASs) in the policymaking process.

Policy advice is defined as the production of knowledge relevant to a policy problem and the offering of recommendations regarding possible solutions (Galanti, 2021: 1). There is a demand for solutions by decision-makers, and various actors proffer policy recommendations on how these problems can be solved. Policy advice includes conducting research, data analysis, stakeholder consultation, formulating advice for decision-makers, and evaluation of policy outcomes (Gregory & Lonti, 2008:838). However, policy advice is not provided by a single entity.

PAS covers a set of actors in different sectors and jurisdictions who provide policymakers with information, knowledge and recommendations for action while also understanding the politics around the issue (Craft & Howlett, 2012: 80; Galanti, 2021:2). Each country's internal government PAS is different. Some governments have a designated internal policy advice unit, while others pool together internal expertise on a particular issue when advice is needed (Aubin & Barns, 2021:288).

Traditionally, high-level civil servants in the central government provided policy advice to guide policymakers and support their decisions (Aubin & Barns, 2021: 287). Recent literature shows that governments are increasingly turning to external advice from advisory boards, consultants, think tanks, policy labs, academia, appointed political staff and Artificial Intelligence (AI) for policy advice (Craft, Head and Howlett, 2024:145; Velsely, 2017:48). The shift in involving external actors in giving policy advice is motivated by a move to have new public participatory and consultative sources of advice (Craft et al, 2024:145). Aubin and Barns (2021:288) argue that although there exists a plethora of policy advisers, civil servants are fundamentally important to the policy process. In many countries, civil servants are responsible for most of the policy advice and are essential in brokering, organising and structuring the work of expert committees and advisory bodies (Aubin & Barns, 2021:288). This reflects the importance of the internal central government policy units.

The Westminster[1] and Organisation for Economic Co-operation and Development (OECD) member countries are the focus of extensive research on PAS (Craft and Halligan, 2015:3; Howlett, 2019:242). However, literature on PAS in developing countries in Africa, Asia and Latin America is limited (Howlett, 2019: 242). To address this need, this research analyses the internal government Policy Advice Systems at the ***central government level in Brazil, Kenya, India, and South Africa***. The research findings seek to provide advice in the centre of government on improving policy advice. In the current policy advice configuration, the Policy and Research Services (PRS) branch in the Presidency of South Africa is in a position to consider many of these recommendations.

1 Canada, UK, Australia and New Zealand are called the Westminster family, since they share similar characteristics that enable comparability.

Research Objectives

The research analysed the internal government Policy Advice Systems at the central government level in Brazil, Kenya, India, and South Africa. It aimed to address the following objectives:

Objective 1:

To identify the key entities, actors, and processes internal to the central government PAS of the four countries.

This objective analyses how PAS works in the selected countries, identifying the key lessons and constructive good practices of policy advice.

Objective 2:

To explore how AI and digital tools contribute to improving PAS in these selected countries.

The objective seeks to understand how AI and digital tools are being utilised to enhance policy advice.

Objective 3:

Make recommendations that improve South Africa's policy advisory system.

Research Design

A qualitative research design was adopted. Brazil, Kenya, India, and South Africa were the selected countries to analyse their *central government policy advice system and* showcase the *AI and other digital innovations* being utilised to improve policymaking. The analysis is based on secondary sources. These sources included academic publications, relevant policy documents, government documents, government department websites, reports and public opinion surveys.

The key limitation of this research is the absence of primary data collection, such as interviews with key informants. These interviews would have revealed nuances not available in the public domain, especially regarding the use of digital tools to improve policymaking.

Country Case Selection

Brazil, Kenya, and India are selected because these are global south and middle-income countries that encounter similar challenges to South Africa. In addition, there are similarities in the governance styles, which makes comparisons with South Africa easier. In Kenya and South Africa, there is a shortage of AI capability and digital literacy within government, public services, and low levels of citizen trust in government, which makes the two countries comparable. All countries have persistent challenges, for example, inequality and unemployment. Lessons that are applicable in these countries are more likely to be adopted and adapted in the South African context.

Consolodated Report Table 1: Characteristics of Selected Countries

Characteristic	Brazil	Kenya	India	South Africa
Global South Country	Yes	Yes	Yes	Yes
Democratic	Yes Federal Presidential	Yes Parliamentary Democracy	Yes Parliamentary Republic	Yes Parliamentary Democracy
Governance structure	Federal	Centralised	Federal	Centralised
BRICS member	Yes	No	Yes	Yes
Internet penetration	88% of population	48% of population	55% of the population	78.9% of the population
Digital inclusion	High mobile penetration	Strong mobile and fintech	High mobile penetration but disparities exist	High mobile penetration

Source: *Authors (2025)*

Main Findings

Policy Advisory Systems

First, at the central government level, the office of the President is observed to play a critical role in coordinating policy advice, policy coordination and facilitating policy implementation.

Units within the Presidential offices are responsible for policy advice on strategic and cross-cutting national priorities, for example, digital transformation and economic development. This was evident in Brazil, Kenya and South Africa, but not India.

In Brazil, the Casa Civil is a unit within the Presidency and is the President's chief advisory office. It was established by a presidential decree in 1938 and advises the president on strategic matters. In a federal system, it plays a central function of articulating inter-ministerial initiatives. It ensures coherence in policymaking across a highly decentralised system, serving as a central hub for policy advice, coordination, and strategic management. In Kenya, within the office of the President, the Presidential Policy and Strategy Unit (PASU) provides policy advice directly to the President. The unit focuses on strategic and cross-cutting issues, for example, AI, digital economy, digital transformation, security, and governance (Presidential Policy and Strategy Unit, n.d.). In South Africa, at the central government level, PRS, the National Planning Commission (NPC), and the Department of Planning, Monitoring and Evaluation (DPME) are three units within or close to the Presidency that are crucial in providing policy advice. PRS is responsible for the central function of coordinating evidence-based policy formulation, coordination and implementation of national priorities (South African Presidency, 2020:3, 22). PRS also advises the President, the Deputy President and members of Cabinet (South African Presidency, 2020:24). The NPC produces advisory reports while the DPME develops evidence-based planning, monitoring and evaluation of developmental outcomes. The case of India shows divergence from the three other cases. In India, the policy advisory units are noted to be external and do not explicitly reside within the Presidency. Many entities provide policy research and advice to the government that are not situated within the Presidency.

Second, the individual ministries' policy units and government-funded research institutes contribute to central government policy advisory work for specific sectors.

This is evident in all cases. Brazil has many internal government policy units and government research units that contribute inputs to the central policy advice system. One example is the Institute for Applied Economic Research (IPEA), which is government-funded and linked to the Ministry of Planning and Budget. The IPEA provides economic modelling and policy impact assessments for ministries, conducts research on poverty reduction, fiscal policy, and industrial strategy, and advises the Casa Civil and National Treasury using evidence-based recommendations (Saguin, González-Velosa, Meneses, & Silva, 2024).

Similarly, the case of Kenya reveals that the government has multiple research units that are key in the policy advisory system. The Kenya Medical Research Institute (KEMRI), Kenya School of Government (KSG), and the Research and Innovation Unit under the Ministry of Information, Communication and the Digital Economy are examples of such units. KEMRI conducts medical and public health research to inform health policy. KSG's Research and Advisory Services conducts multidisciplinary, evidence-based research across the public sector and provides policy briefs to the government. KSG houses the Regional Centre of Competence in Digital and AI Skilling for the Public Sector, which will offer cutting-edge training and capacity building in digital tools and AI to the public service. The Research and Innovation Unit provides data-driven policy recommendations to the government and supports the development of the National AI Strategy.

In India, the National Institution for Transforming India (NITI Aayog), the Centre for Policy Research (CPR), and the Indian Council for Research on International Economic Relations (ICRIER) play a crucial role in contributing inputs for the central government's policy advisory function. The NITI Aayog is the policy advisory body of the Government of India, established in 2015 to replace the Planning Commission (Next IAS, 2024:2). It provides strategic, economic, and technical advice to the central and state governments, ensuring effective policy formulation. The CPR conducts independent research on governance and policy, while the ICRIER focuses on economic policy.

The National Advisory Council on Innovation (NACI), an internal unit of the Department of Science and Innovation in South Africa, is an example of a policy unit contributing inputs for central government policy advisory work. NACI's role is to advise, monitor and evaluate, and plan and coordinate in line with broad government priorities (Cele, 2020: 145).

Third, policy advisory units within the central government complement their research and evidence-based capacity by collaborating with external units, for example, research units, think tanks, academia and civil society.

Brazil and Kenya show the importance of this linkage. In Brazil, there is a high level of cooperation between internal government units and external independent advisory bodies to develop evidence-based policy advice, formulation and implementation. The Getúlio Vargas Foundation (FGV), ITS Rio, and the Climate Policy Initiative are examples of this collaboration. The FGV is a think-tank external to government. It was established in 1944. It advises the Brazilian government and is frequently commissioned by ministries, Congress, or state governments to draft reports, conduct feasibility studies, and provide technical input on legislation and regulation. ITS Rio is a research and policy centre that focuses on digital governance, AI policy, data privacy, and cybersecurity. It works with the government to shape AI and digital governance policies, analyses the implications of data privacy laws and AI regulation, and advises agencies like CGU and TCU on AI-driven governance. The Climate Initiative conducts rigorous economic, institutional, and legal analyses to identify areas for improving public policies. It provides recommendations on reconciling economic development with environmental conservation (Climate Policy Initiative, 2025). In Kenya, the Kenya Institute for Public Policy Research and Analysis (KIPPRA) plays a crucial role in providing data-driven policy advice directly to the Presidency. KIPPRA is also involved in building policy research capacity and facilitating dialogue with think tanks.

Lastly, the use of Policy Advisory Committees (PACs) is common in Kenya and South Africa.

Policy advisory committees (PACs) provide knowledge, evidence, and advice to improve the quality and legitimacy of policymaking. However, tracking these advisory committees is difficult as there is no national register of government committees nor a register of members. In Kenya, committees are created for short periods with specific objectives (for example, Competence-Based Curriculum Taskforce; Covid Taskforce), while others have a longer life (National Economics and Social Council; National Skills Development Policy Technical Committee) (Irwin & Kyande, 2023). The Presidential Economic Advisory Council and NACI are examples of PACs in South Africa. Reports and proposals from PACs are submitted to the cabinet secretaries.

Digital tools

Given information in the public domain, the findings show that, in all four cases, **there are no digital tools developed specifically to improve the PASs of the central government**. Digital innovations developed to facilitate faster and improved policymaking processes may exist, but it is not available in the publicly available literature.

What is evident in all four cases is that digital tools are being utilised by line ministries and different sectors to improve efficiency. AI and digital tool applications are used to improve tax, e-government, agriculture, security, healthcare, and transport. To showcase a few examples, regarding **tax,** in Kenya, AI-driven chatbots and virtual assistants provide automated responses for tax inquiries. The Kenya Revenue Authority (KRA) is planning to use AI to help reduce tax evasion and expand the tax base (Nextrade Group, 2024; Regtech Africa, 2024). In South Africa, the South African Revenue Service (SARS) uses AI tools for fraud detection significantly reducing tax fraud and SARS integrated AI into its work without reducing staff (Bhengu, 2023: 6). A chatbot called Lwazi is used through e-filing and the SARS MobiApp (Bhengu, 2023: 17). AI has brought a reduction in interpersonal services and cash shops, contributing to the lessening of corruption within SARS (Bhengu, 2023: 23). The Finance Ministry in India has been leveraging AI to enhance efficiency and transparency in income tax administration. The key AI applications relate to the detection of tax evasion, faceless assessments, integration with other databases, predictive analytics and social media analysis.

The Brazilian central government portal GOV.BR is an exemplary case for improving efficiencies regarding **e-government**. Launched in 2019, the platform has more than 4700 services offered through 460 integrated public entities, with more than 156 million registered users (Grimm, Reiners, Braun, Donath, Hörbelt, Lampert and Wich, 2024:28-29, G20 Brazil, 2024). Some of the main digital services include: pre-filled *Income Tax Return*, Electronic Signature, *My Digital SUS* (the digital health service that stores a person's medical records), *Secure Cell Phone* (a safety feature developed by Meta and the Brazilian Ministry of Justice and Public Safety), *My INSS* (Social Security), *Enem* (standardised national exam), *eSocial* (used by employers to report employee tax, social security and payroll information) and the *Digital Driver's License* (G20 Brazil, 2024). Central to GOV.BR viability is the introduction of a Digital Identity, including the National Identity Card (CIN), a document that integrates advanced technologies such as blockchain and a QR Code that ensures better security and data immutability (G20 Brazil, 2024).

The above examples show how line ministries are using AI-based digital tools to improve efficiency. **Although these tools increase efficiency and some enable data to be found easily, making decision making quicker, there is no evidence that these platforms are being utilised or formally incorporated at the central government level for policy advice in these countries.**

The findings show that each country is intentional about regulating AI to reap the benefits of efficiency while maintaining important safety and security issues. Brazil has an AI Strategy (2021) and an updated AI Plan published in July 2024-2028. In 2018, the NITI Aayog released the National Strategy for AI, and in 2021, also published the Principles for Responsible AI, addressing ethical considerations for AI deployment in India. South Africa and Kenya have published AI Strategies in 2024 and 2025, respectively, but are still conducting consultations on these policy documents. Lastly, the findings show that the **development of AI requires huge capital investment** and related digital public infrastructure investments too.

Key Recommendations for South Africa

Policy Advisory Systems

A collaborative environment between the central government policy units and external policy-relevant research units can be developed to increase sources of evidence in developing policies. This ability to draw from external partners for evidence timely manner is shown to work in Brazil with the FGV and Kenya working with KIPPRA.

The South African Presidency, through PRS, can develop and strengthen relationships with ministries' policy research units. Moreover, PRS can organise capacity-building training for the ministry's policy units, as this will ensure that high-quality evidence is submitted to PRS from the line departments.

The South African Presidency, through PRS, can create a more networked policy advisory system. This could be achieved by strengthening formal and informal relationships with internal policy advice structures within the government. Building partnerships could lead to a deeper understanding of the practical foci and competencies in these structures, and to improving support to facilitate the work of internal government structures.

The South African Presidency, through PRS, can become a sourcing agent for policy advice and data from various government structures. PRS could actively draw on evidence from internal government structures. PRS would be the link that connects structures that can be sources of policy advice and policy-relevant data within government. PRS would be able to draw on the wider expertise existing in government and enhance the role of various government structures in policy development and implementation.

The government can create an **independent compliance and oversight entity** to audit, investigate and ensure the legal integrity and transparency in the policymaking process, like the Office of the Comptroller General (CGU) in Brazil.

When setting up **policy advisory committees,** the government should ensure that they are **small** and **effective,** adding value to the policymaking process. Irwin and Kyande (2023) make these recommendations regarding the use of policy advisory committees.

- Not every stakeholder can be involved – larger committees are less balanced and deliberative, and smaller committees are more effective.
- Government should be more transparent about its boards and PACs – a directory would make it simpler for citizens to keep track of who sits on what board and committee.
- Every board or committee should publish a publicly available a report which focuses on impact and value, not just activity.

Digital tools

South Africa should develop **AI capacity within the government.** This can involve attracting and retaining talent with AI and data science expertise and investing in training programs, establishing centres of excellence like the KSG's Regional Centre of Competence in Digital and AI Skilling for the Public Sector in Kenya. In South Africa, capacity building of government employees can be done through the National School of Government.

The South African Presidency, through PRS should consider developing AI tools for obtaining or analysing policy advice. PRS can initiate engagements to learn from how SARS developed its digital tools. PRS can use AI to both source data from South African databases and generate useful analytics or models as key forms of policy advice.

A single, user-friendly digital government portal should be developed to consolidate all public services. These digital services must be designed with a citizen-centric approach, ensuring that the real-life challenges faced by users in adopting these systems are prioritised. By doing so, user satisfaction, trust, and the legitimacy of public services will be enhanced.

Cross-sector collaboration and partnerships among government institutions, civil society, academia, and startups should be fostered to cultivate a thriving digital ecosystem.

Regulatory frameworks should be designed to remain adaptable to rapidly evolving technologies such as AI, while ensuring that public rights are safeguarded. Additionally, digital sovereignty should be advanced by strengthening government computational capabilities and by establishing a secure cloud infrastructure for certain government data and digital services.

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BRAZIL

1.1. Introduction

Brazil is South America's largest nation, with a population of 217 million people, and also its largest economy with a GDP of $2.17 trillion (World Bank, 2023). It is a leading nation of the Global South and a member of BRICS. From a political perspective, Brazil's more recent history is characterised by the restoration of democracy after two decades of military dictatorship (1964-1985). This has some similarity with South Africa's democratic transition. Brazil's new constitution was promulgated in 1988 and marked a decisive shift to democracy by decentralising policymaking and embedding a new institutional innovation: the principle of participation. The result was that representative democracy had to become much more open to popular voices (Waisbich, 2024: 153).

In terms of government structure, Brazil is a federal republic with decentralised authority spread across a federal government to subnational entities (5,570 municipalities and 26 federal states, plus one federal district that functions as a state). Municipalities were granted authority over sectors such as education, health, and urban planning, shifting some policy development and implementation responsibilities away from the federal level. Despite this, central governance remains influential through fiscal transfers, regulatory frameworks, and national guidelines. However, the interplay between appointed officials and politically active public servants at the municipal level can fragment policy coherence, posing coordination challenges for central authorities aiming to ensure equitable service delivery and strategic national development (Albert and Manwaring, 2019: 415-416).

Politically, Brazil has a high level of multipartism (Fenwick et al., 2017: 206), with 27 political parties represented in its National Congress. This means that the president is almost always a minority one who needs to manage coalition politics to rule effectively. While this devolution aimed to bring policymaking closer to citizens, it also created a complex intergovernmental dynamic. As a result, Brazil has a pluralistic Policy Advisory System (PAS), with multiple actors, institutions, and advisory mechanisms that influence policymaking at the central government level.

In terms of relevant academic literature on PAS, it is worth noting that the bulk thus far have tended to focus on advanced industrial societies and Westminster-style democracies like the UK, Canada, Australia, and others (Albert & Manwaring, 2019). Since Brazil is a federal republic, and not a Westminster-style system, it is more decentralised, which should be taken into account when reading more general literature on PAS. Craft and Wilder (2017) have called for a 'second wave' of analysis that prioritises looking beyond 'exclusive concerns on the public service to the systemic nature of advisory activity'. This is especially applicable to a case study like Brazil, where there are many role players that have an impact on policies that eventually influence the policy decisions of the central government. Albert and Manwaring (2019) address this by looking at processes of 'metagovernance'. However, although such an approach would undoubtedly prove useful in a deeper analysis of PAS in Brazil, they fall outside the direct scope of this report. Furthermore, the literature on PAS in Brazil is mostly focused on specific policy sectors, whether it is the role of think tanks in austerity discourse (Ladi, Lazarou, & Hauck, 2018), conservation policies (Azevedo-Santos, et al., 2017), or institutional development policies of the Brazilian Central Bank (Taylor, 2009). There is a lacuna of academic literature that focuses across different policy sectors in Brazil (Saguin, et al., 2024 is a rare exception), and also on comparative studies between Brazil and other countries (with the exception of Turner et al., 2023). Regarding the use of AI, the work of Nicolás and Sampaio (2024) was very useful.

In order to meet its three objectives, this report is structured to first provide an outline of the policy advisory system (both governmental and non-governmental), with special focus placed on the Casa Civil

or Civil House, which is considered the main advisory body in Brazil's central government. Brazil's digital governance strategies are then addressed, with particular attention given to the projects of the newly formed Ministry of Management and Innovation in Public Services (MGI) and the strategies outlined in Brazil's Artificial Intelligence Plan (PBIA) 2024–2027. Finally, recommendations for South Africa are made based on the findings.

1.2. Methodology

This study adopted a qualitative approach, for which secondary sources were consulted. These include academic publications, OECD reports, government documents, newspaper articles, and websites from different government departments and ministries, as well as non-governmental bodies like think tanks. Information posted on these websites was checked for accuracy and cross-referenced against independent sources where possible. Regarding the focus areas of this study the complexity of the Brazilian state and its numerous role players in policy development and regulation at different levels of governance (and outside) means that a complete list would not be feasible. Instead, this document has a selective focus to include the most relevant areas for its objectives of understanding PAS in central government. It is worth noting that in the case of digital tools and AI, much of the information is very new, as some reports were only published in the last few weeks preceding the finalisation of this report.

1.3. Policy Advisory Systems (PAS) in Brazil

1.3.1. Background

The 1988 Constitution does not explicitly create policy advisory boards but does make provisions that imply or enable advisory structures, for example, Article 1 that states that power emanates from the people and Article 14 that provides for direct democracy through plebiscites, referenda, and so forth. Policy advisory bodies are instead created through other means, like presidential decrees, laws, and internal ministerial ordinances. It is important to also frame Brazil's PAS against the background of recent political changes. President Jair Bolsonaro's presidency (January 2019 - December 2022) marked a distinct shift to the political right that had an impact on participatory democracy and saw a reshuffling of government (Farranha, Bataglia, & de Paula, 2021; see also Alson et al., 2006: 5) in what has been labelled as a period of democratic backsliding (De Sá e Silva, 2022: 274). The election of the leftist President Luiz Inácio Lula da Silva (Lula) in January 2023 has again resulted in a re-structuring of government, including the termination of the Ministry of Economy and the establishment of the Ministry of Management and Innovation in Public Services (MGI). Furthermore, Brazil's extreme multipartism (27 political parties are currently represented in the two houses of the National Congress) means that the president is almost always a minority one who needs to manage coalition politics to rule effectively. President Lula, for instance, presides over a large coalition and follows a "big tent approach to consensus-building" (Pereira, 2024) while seeking to reverse many of the policy changes made by his predecessor. This extremely fragmented system makes it very challenging to develop coherent policy (Fenwick et al., 2017: 206).

1.3.2. The C f Government (CoG)

The Centre of Government (CoG) in Brazil normally refers to the following entities: the Presidency and the Personal Cabinet of the President, the General Secretariat, the Institutional Security Cabinet, the Casa Civil, the Special Secretariat for Strategic Affairs (SAE), the Secretariat of Government, the Office of the Attorney-General, the Ministry of Economy , the Special Secretariat for Social Communication in the Ministry of Communications (SECOM), the Ministry of Foreign Affairs, and the Office of the Comptroller-General (CGU) (OECD, 2022 B). This section looks at the CoG's main advisory bodies, namely the Office of the President, the 'Civil House', or Casa Civil (which will receive particular attention as it is the main body that regulates policy in the central government), the Office of the Comptroller General of the Union (CGU), individual

Ministries, the Institute for Applied Economic Research (IPEA), the Legislative Authority, and the Federal Court of Accounts (TCU).

1.3.2.1. THE PRESIDENT

In terms of policy, the Office of the President is ultimately responsible for setting national priorities and strategic direction. It receives policy input from multiple advisory and coordination bodies that are situated within the various entities of government (and hence funded by the government) and also from independent external bodies. The President of Brazil is both head of state, directly elected by the people, and head of government. While it is one of the most institutionally powerful presidencies in the world (Fenwick et al., 2017: 208), most presidents since the return to democracy in 1985 have been minority presidents that needed to overcome the institutional complexities of coalition politics, which has had a direct impact on policymaking. Fenwick et al. identify the five 'faces', or roles, of the President of Brazil, which in turn influence the dynamics of policymaking. These are: the President's role as head of state and therefore the face of the government to the public; his/ her role as head of the federal bureaucracy; his/her role as coordinator of subnational executives, managing negotiations between the federal government, powerful state governors, and municipal mayors; his/ her role as manager of party coalitions and his/ her role as the face of Brazil towards the outside world (2017: 208-209). Apart from managing these roles, exogenous factors (like the economic slowdown of 2014-2016) impact on the ability of a President to apply the required amount of focus to each role to ensure good policy (Fenwick et al., 2017: 213).

1.3.2.2. THE CASA CIVIL

The Casa Civil, or Civil House, is the President's chief advisory office and plays a key role in articulating inter-ministerial initiatives and advising the President on strategic matters. Its primary role is to ensure coherence in policymaking across a highly decentralised system. It serves as a central hub for policy advice, coordination, and strategic management and is often described as the "nerve centre" of the Executive Branch. The Casa Civil was first established in 1938, not through the Constitution, but through presidential decree. Subsequently, its functions and roles have been updated directly by presidential decree. The Casa Civil is funded through the federal budget. It is served by a large number of special officers. advisory entities, standalone secretariats, sub-secretariats, sub-chiefs and other bodies. It has a very broad mandate and performs the following functions:

a) **Policy Coordination and Gatekeeping:** It coordinates the policy development process across all ministries; reviews, refines, and integrates proposals before they reach the President; plays a gatekeeping role that ensures that policy initiatives are coherent, legally sound, and aligned with the government's priorities; and provides strategic advice to the President. It also acts as a key advisory body to the President on legislative and policy matters. It often prepares policy briefs, memos, and recommendations for presidential decisions and synthesises inputs from ministries, technical bodies (like IPEA), and political advisors.

b) **Legislative Liaison:** In terms of legislative liaison, the Casa Civil coordinates with the National Congress to align the Executive's legislative agenda. It also supports negotiation and political articulation for key government bills and monitors the progress of executive proposals through Congress.

c) **Regulatory Oversight:** Casa Civil oversees the Regulatory Impact Analysis system (AIR); evaluates the social, economic, and environmental impacts of proposed regulations; and works with other regulatory bodies (like the CGU) to improve public policy quality.

d) **Legal and Institutional Control:** It ensures that proposals are legally vetted, often in conjunction with the Office of the Attorney General of the Union (AGU); it also houses the Sub-Chief for Legal Affairs (SAJ) who is responsible for the legal review of decrees, provisional measures and draft legislation.

e) **Crisis Management and Special Projects:** It plays a leadership role in managing emergencies and cross-cutting national programmes like infrastructure or public health responses and oversees inter-ministerial task forces when rapid coordination is needed.

An important entity within the Casa Civil relevant to this report is the Sub-Chief for Policy Analysis and Monitoring (SAAPG). The SAAPG is an important filter and coordination node in the executive branch because it reviews and advises on policies developed and implemented by ministries before they reach the President. It also plays a performance-tracking role by selecting public policies for ex ante and ex post analyses with responsible ministries for review and updating (OECD, 2022, B). It also coordinates with other federal ministries to ensure that their initiatives are aligned with presidential directives and are integrated across sectors. Throughout, the SAAPG uses empirical evidence (often provided by IPEA), statistical data (drawn from digital platforms like GOV.BR and Participa+Brazil) and other evaluations to advise on whether programs should be maintained, restructured or terminated (Casa Civil, n.d). Below is a case study showing how Casa Civil played a central role in coordinating policy development in the highly regulated finance sector.

Case study of policy implementation involving the Casa Civil:
PIX - Brazil's Central Bank's automated payment system:

Policy Initiation & Strategic Framing

Brazil's existing digital payment systems were centralised, fragmented, and often costly, thereby limiting financial inclusion and competition (Banco Central do Brasil, 2022). As a result, the need was identified in early 2018 for an efficient, centrally controlled, automated payment system. This aligned with broader presidential priorities around economic modernisation and digital transformation (the Digital Transformation Strategy, 2018).

Proposal & Drafting

The Central Bank of Brazil initially outlined a public infrastructure for instant payments. It submitted technical and legal proposals to the Casa Civil, advocating for government-backed regulation of a Pix-like system.

Interministerial Coordination via Casa Civil

The Casa Civil then coordinated the project between the Ministry of Finance (for budget impact), the Ministry of Planning & Budget (for fiscal implications), the AGU and SAJ (for legal viability), and the President's digital transformation agenda.

Legal Review & Regulatory Design

SAJ (Casa Civil) and AGU (independent of the Casa Civil) ensured constitutional compliance. The Central Bank could then leverage its broad regulatory mandate (rooted in the 1964 Banking Act and Payment System Act of 2013) to draft binding regulations and compel participation by banks and financial institutions (Schapiro, *et al*, 2023).

Budget and IT Infrastructure Support

The Ministry of Finance and the Ministry of Planning & Budget reviewed whether any subsidies or IT investments were required. The SGD (under the MGI) coordinated on technical specifications and integration into gov.br data systems (a primary digital tool in policy development) and public APIs standards (IMF, 2023).

Executive Sign-Off

Draft regulations were finalized through the Casa Civil. The regulatory framework was formally signed by the President and the decree and implementing regulations were published in the Official Gazette (DOU).[1]

Implementation by Central Bank & Oversight

The Central Bank of Brazil launched Pix on 16 November 2020, with subsequent tech integration by designated public IT companies and oversight by Casa Civil and the Ministry of Finance. Signup and usage monitoring dashboards were integrated into gov.br and PIX's own systems.

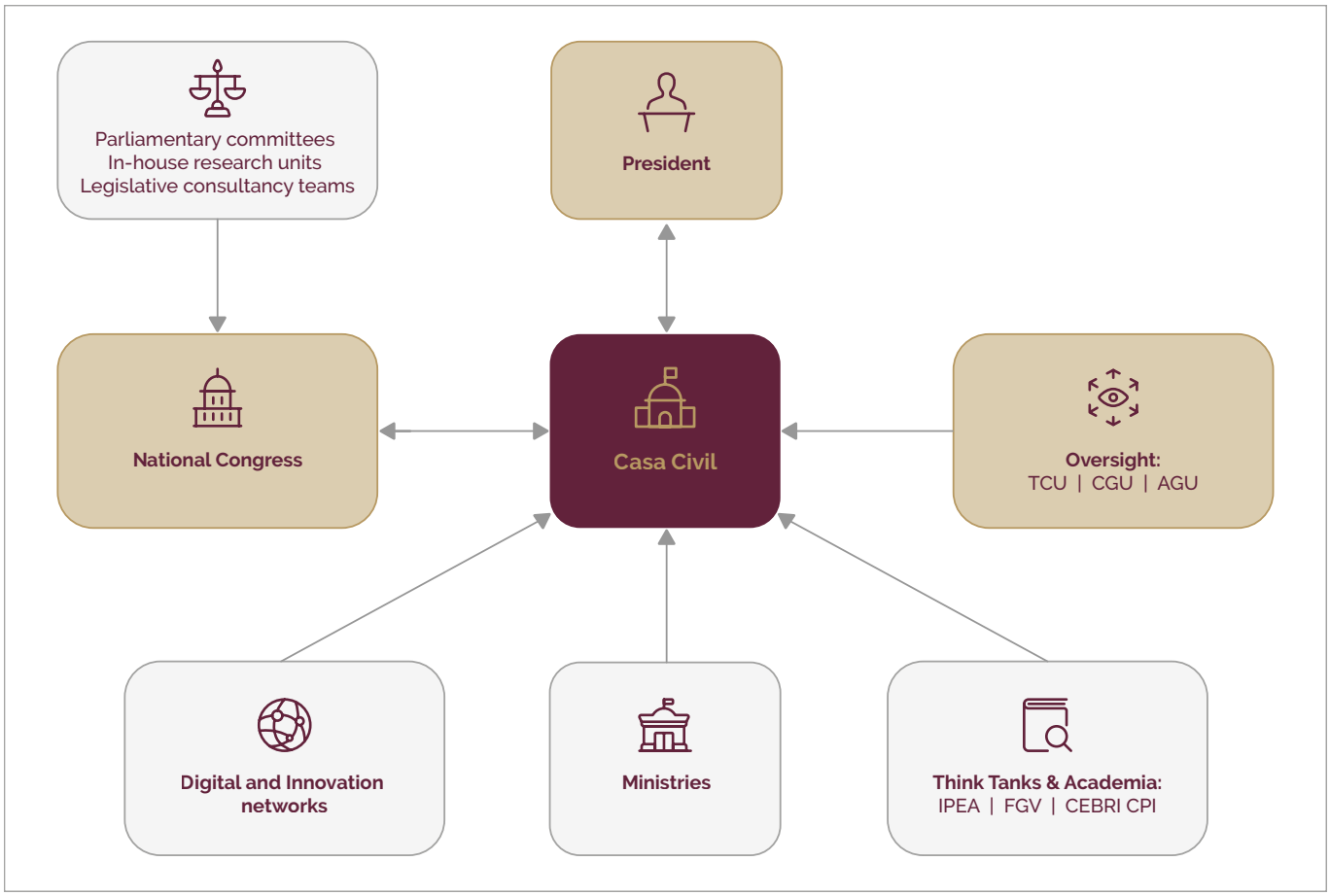
Monitoring, Evaluation & Institutional Follow-Up

PIX usage soared: over 80% of adults, 140 million individuals, 13 million firms, and 3 billion transactions monthly within two years (IMF, 2023); Casa Civil (including SAAPG), along with CGU and IPEA (external to the Casa Civil), monitored financial inclusion, competitiveness, and system reliability (Schapiro, et al. 2023; IMF, 2023; Grimm et al., 2024; see also Banco Central do Brasil, 2022; MGI 2025).

The successful development and launching of PIX in under three years (from conception to launch) relied on the cooperation of many different entities within the finance sector and the alignment of policy through the Casa Civil. The following chart is a more general depiction of the role of the Casa Civil.

1 Since this was a presidential decree, it did not have to go through the National Congress. In the case of a draft Bill, it will first be sent to the National Congress, where it needs to pass through various committee stages, floor debates, and Senate and Chamber of Deputies votes before the President can either sanction or veto the Bill.

Brazil Fig. 1. The positioning of the Casa Civil in PAS in Brazil's central government (Author's design)



Source: *Author (2025)*

Figure 1 indicates the central role that the Casa Civil occupies in Brazil's policy advisory system and its interaction with different governmental and non-governmental bodies. It cooperates with the National Congress (which has its own advisory bodies), individual line ministries, external bodies like think tanks and academia, regulatory bodies, and various digital and innovation networks. It is the final step in policy development before it reaches the office of the President.

Positives

As mentioned before, Brazil's government is highly complex and decentralised. The Casa Civil is well-positioned as a filter through which almost all policy advice passes, thus acting as a centralising mechanism. It cooperates with different entities across sectors and all levels of government and is active in producing standardised, high-level documents on the implementation of policy (which was one area highlighted in the OECD report of 2022 that needed to be improved to ensure effective and transparent governance). However, its close proximity to the President's office makes it vulnerable to political changes at the highest level (Farranha, Bataglia, & de Paula, 2021).

Negatives

The Casa Civil is vulnerable to presidential decree that can affect democratic participation in policy. A recent example is the administration of conservative President Jair Bolsonaro (2019-2022), which made a concerted effort to terminate all participatory institutions that had not been created by statute (through Decree 9.759/201). This led to the termination of 25% of the citizen working groups actively engaged with the Casa Civil (Farranha, Bataglia, & de Paula, 2021: 156). Although rationalised by the administration as an effort to reduce bureaucracy and public spending, the result was the destruction of "…the model of (more liberal) government(s) from previous years, which favoured dialogue and participation. … Bolsonaro's decree

(became) one in which proximity to the Chief (a type of contemporary populism) is more important than the plural mediation exercised by participatory bodies" (Farranha, Bataglia, & de Paula, 2021: 159).

1.3.2.3. THE OFFICE OF THE COMPTROLLER GENERAL OF THE UNION (CGU)

The CGU is a ministry-level body that forms part of the Executive Branch. It acts as a watchdog within the government, audits, investigates, and enforces integrity inside federal institutions to ensure legal compliance and the proper spending of public money. The CGU is responsible for promoting transparency, accountability, integrity, and internal control within Brazil's federal government. It works closely with the Casa Civil (for example, see the PIX case study above) to ensure policies are legally compliant. Its core functions include:

a) **Internal Audit & Control:** It evaluates the use of public resources in federal programs and agencies; monitors compliance with fiscal and administrative rules; and ensures proper functioning of internal audit systems across ministries.

b) **Corruption Prevention:** It designs and coordinates national anti-corruption strategies; investigates and punishes civil servants involved in misconduct; and implements integrity programmes in public administration.

c) **Ombudsman and Public Transparency:** It manages the federal Transparency Portal; coordinates implementation of the Access to Information Act; and responds to citizen requests for government information.

d) **Disciplinary Action & Ethics Enforcement:** It conducts disciplinary proceedings against public servants and oversees integrity policies and whistleblower protection mechanisms (Controladoria-Geral da União, n.d.).

1.3.2.4. POLICY UNITS IN LINE MINISTRIES

Different ministries have internal policy units in the form of departments, secretariats, or directorates that design, monitor, and evaluate policy in their specific sectors. There are many such units spread over the 37 line ministries (and other ministerial-level entities like the Casa Civil), and apart from the Sub-Chief for Policy Analysis and Monitoring (SAAPG) within the Casa Civil (discussed in more detail above) and the Secretariat of Digital Government (SDG) under the Ministry of Management and Innovation in Public Services (discussed in more detail below), here are some of the most influential with short explanations of their roles in shaping policy: the Secretariat for Economic Policy (SPE) within the Ministry of Finance plays a central role in shaping macroeconomic policy and fiscal strategy (Ministry of Finance, 2025); the National Secretariat for Citizenship Income (SENARC) within the Ministry of Development and Social Assistance, Family and Fight Against Hunger oversees the Bolsa Família (social welfare) programme and related poverty alleviation policies (Ministry of Development and Social Assistance, Family and Fight Against Hunger, n.d.); the Secretariat for Research and Scientific Training (SEFIP) within the Ministry of Science, Technology and Innovation directs national science and research policies (Ministry of Science, Technology and Innovation, n.d.); the Department for Climate Policy and Climate Change under the Ministry of Environment and Climate Change develops and implements policies related to climate change mitigation and adaptation (Ministry of Environment and Climate Change, n.d.); the Department of Monitoring and Evaluation of the SUS (DEMAS) within the MinisTry of Health monitors and evaluates public health policies within the Unified Health System (SUS) (Ministry of Health, n.d.).

1.3.2.5. THE INSTITUTE FOR APPLIED ECONOMIC RESEARCH (IPEA)

The IPEA is a federal public foundation (and therefore funded by the federal budget) linked to the Ministry of Planning and Budget. It provides technical and institutional support to government entities for the formulation and reformulation of Brazilian public policies and development programmes (Institute for Applied Economic Research, n.d.). It focuses mainly on economic policy, social development, and public finance. The IPEA provides economic modelling and policy impact assessments for ministries; conducts research on poverty reduction, fiscal policy, and industrial strategy; and advises the Casa Civil and National Treasury using evidence-based recommendations (for more on evidence-based decision-making see Saguin et al., 2024). A recent example of work done by IPEA related to Brazil's digitalisation drive has shown

that internet and digital technologies can amplify existing power imbalances and centralised control within sectors that rely heavily on advanced technologies, potentially leading to wage disparities (Leite, Freguglia & Corseuil, 2025: 5).

1.3.2.6. THE LEGISLATIVE BRANCH

The National Congress (the Chamber of Deputies and the Federal Senate) debates and formulates national legislation. Apart from lawmaking and oversight, the National Congress is also a major producer, mediator, and consumer of policy advice that combines internal expertise, oversight, and public consultation. It receives support from legislative in-house consultancy teams like Consultoria Legislativa (CONLEG) and also research units like the Centro de Estudos e Debates Estratégicos (Center for Studies and Strategic Debates, or CEDES) in the Chamber of Deputies that produces documents of high specialisation, many of which have been turned into law or incorporated into government (Center for Studies and Strategic Debates, n.d.).

Furthermore, parliamentary committees play a role in reviewing and advising on policies, while the Supreme Federal Court influences policy through judicial decisions. Relevant to the broader digitalisation strategy is the establishment of the Mixed Parliamentary Front for the Digital Economy and Citizenship in 2019. This represents a strong collaboration between the Federal Government (represented by the SDG) and the National Congress on the enhancement of public policies for the sector (Camara dôs Deputados, 2019). More recently, in 2023, the Mixed Parliamentary Front for the Guarantee of the Right to Identity (FrenID) was established in cooperation with the MGI to help accelerate citizen access to the new national identity card (Ministry of Management and Innovation in Public Services, 2023).

1.3.2.7. THE FEDERAL COURT OF ACCOUNTS (TCU)

The TCU is Brazil's external audit institution responsible for overseeing how public funds are used by the federal government. It functions independently from the Executive, Legislative, and Judicial branches. It is linked to the National Congress but operates autonomously. Although the TCU does not create policy, it has a powerful indirect influence on policy formulation and reform by performing performance audits to help identify policy inefficiencies. It also provides technical reports and recommendations that can influence public debate and legislative reforms, as well as risk alerts and compliance reports that can lead to adjustments in ongoing programmes. Furthermore, it helps ensure that public policies are legal, efficient, and aligned with constitutional principles. "*At the federal level, Brazil's Tribunal de Contas da União (Federal Court of Accounts) has initiated a citizen monitoring programme for roadworks. Citizens receive location-based notifications about nearby paving projects and are invited to submit geo-tagged photos and feedback. Verified reports earn micro-rewards and reduce the cost and workload of traditional technical inspections*" (TCU, n.d.).

1.3.3. Non-government advisory bodies

There are many non-government advisory bodies that actively cooperate with the central government in policy development. Most often, they specialise in specific sectors like technology and the environment. Three examples relevant to this report are the Getúlio Vargas Foundation (FGV), ITS Rio, and the Climate Policy Initiative. The FGV is one of the oldest (it was established in 1944) and most influential think tanks in Latin America and falls outside government. It acts as an external technical advisor to the Brazilian government and is frequently commissioned by ministries, Congress, or state governments to draft reports, conduct feasibility studies, and provide technical input on legislation and regulation. It serves as a key bridge between academia, government, and civil society. For instance, currently, the team from the Center for Sustainability Studies at FGV is working with the Ministry of Environment and Climate Change by gathering contributions from civil society for the drafting of the National Mitigation Strategy and its Sectoral Plans, that in turn will guide Brazil's National Plan on Climate Change until 2035 (Fundação Getúlio Vargas, n.d.).

ITS Rio is a non-profit research and policy centre focused on the intersection of technology, law, and society. It focuses on digital governance, AI policy, data privacy, and cybersecurity. It works with the government to shape AI and digital governance policies, analyses the implications of data privacy laws and AI regulation, and advises agencies like CGU and TCU on AI-driven governance. It is involved in numerous projects related to using technology to strengthen democracy. One example is Mudamos - which is partnered with Google.

Its goal is to create a virtual space for discussion and collaborative construction of public policies. On one level, Mudamos promotes a qualified and multi-sector debate on public issues on the Internet, and on the other it focuses on the creation of solutions to these issues, whether it be local, regional, or national. All policies collectively formulated through Mudamos are handed in to public agents responsible for their implementation and must be followed up by the network of organisations and people that participate in the project. In this way, Mudamos promotes active public participation in identifying problems and shaping the policies needed to address them. Regular reports are published on their website. They also organise live events such as talks with experts on digital governance (ITS Rio, 2025).

The Climate Initiative, or CPI, is an independent, not-for-profit organisation supported by a diverse range of funders from around the world. Its Brazil Policy Centre is housed at the Pontifical Catholic University of Rio de Janeiro and conducts rigorous economic, institutional, and legal analyses to identify areas for improving public policies. It provides recommendations on reconciling economic development with environmental conservation. It operates independently and collaborates with government agencies and civil society to chart paths for policy improvement, particularly in environmental and economic sectors (Climate Policy Initiative, 2025). The environment is a key factor in Brazilian politics, and the new administration has prioritised the development of sustainable environmental policies. This makes environmentally focused think tanks like the Brazil Policy Centre important contributors in the PAS ecosystem. This became especially apparent in the aftermath of the 2024 climate crisis that saw floods devastate the state of Rio Grande do Sul, causing significant human and economic losses. The floods highlighted the need for better risk management and the adoption of more resilient infrastructure (Climate Policy Initiative, 2024). One of the main projects of the Brazil Policy Centre of the CPI is the monitoring of the Forest Code - one of Brazil's most important policies. The backbone of the Forest Code is managed between the Brazilian Forest Service and the Ministry of Management and Innovation of Public Services (MGI), with the Brazil Policy Centre providing detailed technical reports and expertise (Climate Policy Initiative, 2024).

1.4. Digital tools and AI

This section examines the use of digital tools and AI in Brazil's central government's Policy Advisory System (PAS). The Brazilian government has identified this area as key to improving efficiency and strengthening the connection between the state and its citizens through technology. A sustained drive to digitalise government services has produced positive results, positioning Brazil as a global leader in this field. This has also been made possible by Brazil's 82.6% internet penetration rate, which translates to 183 million individuals who actively use the internet in the country (Datareportal, 2025).

1.4.1. Background of Brazil's Digital Strategy

Digital tools play a central role in PAS across all levels of government in Brazil as they facilitate data-driven decision-making, transparency, and increase efficiency. Brazil is strongly committed to the digital transformation of its government and, in so doing, aims for its government to act as the primary agent for the digital transformation of the economy and of society. Policies are designed to bring government and citizens closer to each other and are fundamentally guided by the Digital Transformation Strategy (E-Digital, through Decree no. 9,319/2018), launched in 2018. The Digital Transformation Strategy is based on three principles: increased transparency and accountability; greater social participation in policymaking and the provision of more effective public services. It aims to achieve these goals by prioritising the digital transformation of the economy, encouraging digital innovation, improving the connectivity of citizens, increasing the usage of digital technologies, and improving the levels of trust in the digital environment (OECD, 2020). Subsequent decrees have referenced, amended, and integrated, but not replaced, the Digital Transformation Strategy.

The most recent is Decree No. 12.069 that created the National Digital Government Strategy and the National Digital Government Network (Rede Gov.br) for the period 2024 to 2027. The Strategy oversees the national digital transformation of public administration across all levels of government. It has a long list of objectives, including the implementation and maintenance of a single, national identification associated with the National Identity Card that is valid across all federal entities; managing resilient and scalable government

technological infrastructures; increasing the transparency of public organisations; optimising efficiency and promoting the innovation ecosystem through the use of emerging digital government technologies. Notably, unlike public policy in some other sectors (for instance, the environment) that can be subject to fierce political in-fighting, policy on digitalisation seems to be universally supported, regardless of the political ideology of the ruling party. This is likely to result in continued and uninterrupted progress in what seems to be an already successful sector (Grimm et al., 2024, p. 25). According to the World Bank's GovTech Maturity Index (GTMI) rankings, Brazil consistently ranks as a good practice country, with a score of 0.92, making it a leader in the digital government landscape. In comparison, South Africa's Digital Governance score for 2022 is 0.562, down from 0.772 in 2020. In the Southern and Eastern Africa region, SA is placed seventh (World Bank, 2023).

1.4.2. Managing the digital strategy

The main body responsible for the consolidation of Brazil's digital governance and public management agenda is the newly formed Ministry of Management and Innovation in Public Services (MGI), established in January 2023. It was specifically established to strengthen the Digital Transformation Policy (2018) and to expand interaction across all federal entities, as well as to realign and consolidate administrative modernisation functions previously spread across different bodies under a unified structure. It also manages the National Digital Government Strategy and the National Digital Government Network (2024-2027). The MGI's mandate aligns with global public administration trends emphasising digital innovation, interoperability, and resilience in state capacity (Ministry of Management and Innovation in Public Services, 2023). A key component under the MGI is the Secretaria de Governo Digital, or SDG, that is directly responsible for executing many of the central government's digital objectives.

Until 2019, the Secretariat of Information and Communication Technologies (SETIC), located within the Ministry of Planning, Budget and Management (MPOG), was tasked with overseeing federal IT policy and e-government systems, forming the basis for Brazil's digital state infrastructure. Its role was absorbed into the SGD, established in June 2019 (Decree No. 9.745/2019), which formed part of the Special Secretariat for Debureaucratization, Management and Digital Government under the now-defunct Ministry of Economy. The Ministry of Economy was dissolved in January 2023, and the SGD was moved to MGI. The SGD's stated objectives are to consolidate and expand the GOV.BR platform and its network; establish the National Data Infrastructure (NDI); implement and expand the new identification system and its new National Identity Card; strengthen maturity and resilience in Privacy and Information Security and to develop the governance of the Administration System of Information Technology Resources of the Federal Executive Branch (SISPS) and its IT resources (Ministry of Management and Innovation in Public Services, 2023). Below is a more detailed description of the primary digital tools.

1.4.3. Digital tools

1.4.3.1. GOV.BR

GOV.BR, the central government's online portal, is a major success and stands out as the primary digital tool influencing PAS in Brazil. It was launched in 2019 through Decree No. 9,756 (Government of Brazil, 2019). A total of 177 public service portals were migrated to this single portal, vastly increasing the government's digital interactions with its citizens (World Bank, 2023, p. 10). This meant that by early 2023, an estimated 89% of public services provided by the federal government could be accessed through GOV.BR (Grimm et al., 2024: 29). The portal's overall statistics are impressive: more than 156 million Brazilian citizens are registered on GOV.BR, and there are more than 4700 services offered through 460 integrated public entities (Grimm et al., 2024: 28-29, see also G20 Brazil, 2024). It is the world's most accessed online government services portal. Some of the main digital services include: pre-filled Income Tax Return, Electronic Signature, My Digital SUS (the digital health service that stores a person's medical records), Secure Cell Phone (a safety feature developed by Meta and the Brazilian Ministry of Justice and Public Safety), My INSS (Social Security), Enem (standardised national exam), eSocial (used by employers to report employee tax, social security and payroll information) and the Digital Driver's License (G20 Brazil, 2024). Central to GOV.BR viability is the introduction of a Digital Identity, including the National Identity Card (CIN), a document that integrates advanced technologies such as blockchain and a QR Code that ensures better security and data immutability (G20 Brazil, 2024).

Furthermore, the portal has an easily navigable interface and an average user satisfaction score of 4.3 out of 5.0 (World Bank, 2023, p. 10). The success of GOV.BR has contributed to Brazil's ranking of 14th out of 193 countries on the Online Service Index (which measures the scope and quality of services offered by the public sector). This ranking places Brazil ahead of top European economies like the UK (17th), France (20th), and Germany (44th) (Grimm et al., 2024, p. 29). Ultimately, the successful onboarding of so many citizens onto the GOV.BR platform is due to the combination of strong institutional leadership (SDG and the MGI), an easy-to-use design, high internet penetration, and the centralisation of many services on the platform.

1.4.3.2. CONECTA

Conecta forms part of Brazil's National Data Infrastructure (NDI), which in turn falls under the SDG. It is a programme that reduces the need for citizens to resubmit data already held by the state. Conecta integrates data between systems (known as interoperability), making it easier and more secure for citizens to use. It reduces fraud, saves costs and improves efficiency across agencies through automated, secure data sharing. The Conecta programme saved R$ 1.57 billion (USD300m) in the first quarter of 2025 by integrating digital government systems (Conecta gov.br, n.d.)

1.4.3.3. PARTICIPA+BRASIL

Participa+Brazil is an open data portal and serves as a means to improve transparency and fiscal openness. It contains over 14,000 datasets that are available in both human and machine-readable formats. The datasets cover various sectors, including agriculture, education, and health, and are updated daily. The platform provides a direct link through which citizens can give feedback, suggestions, and criticisms, in the process contributing to policymaking and the improvement of public services. Citizen engagement statistics are regularly published, and initiatives are implemented to increase the participation of vulnerable groups (World Bank, 2023: 12).

1.4.3.4. CINCO

The Behavioural and Insight Unit (CINCO) was established in 2023 and falls within the MGI, although not directly under the SDG. The goal of CINCO is to "support the development of high-impact policies, striving to make public services simpler, more accessible, transparent, and more efficient" (Ministry of Management and Innovation in Public Services, 2023). CINCO uses behavioural science to help bridge the gap between government policy and actual human behaviour. Rather than expecting people to adapt to rigid policies, CINCO designs user-centred solutions that simplify public services, improve accessibility and efficiency, and encourage positive behaviours. CINCO is similar to behavioural units across the world that aid government agencies in "designing and implementing policies that better suit the needs of both users and implementers" (Ministry of Management and Innovation in Public Services, 2023).

1.4.4. Artificial Intelligence (AI)

To understand the role of AI in policymaking in Brazil, it is necessary to also understand Brazil's development of AI policy itself. In essence, AI has major potential to promote citizen well-being and enhance government capacity, but it needs to be managed in such a way that it respects citizens' dignity, social rights, and cultural diversity, and not exacerbate inequality and discrimination. Due to the pressures of managing the effects of the recent global acceleration in digital transformation (due in part to the launch of generative AI services like ChatGPT in late 2022), it has become imperative for countries to prioritise their own AI sovereignty. AI sovereignty needs robust cyber-security measures and relies on the development of trustworthy AI technology that is transparent, accountable, fair, non-discriminatory, and that protects the privacy of citizens (Johansson Neto, Farias da Costa, & Gaspar, 2024: 2).

The first iteration of Brazil's policy towards AI was the Brazilian Artificial Intelligence Strategy (EBIA), published in 2021 by the Ministry of Science, Technology and Innovation. The most recent policy statement, called "AI for the Good of All: Brazilian Artificial Intelligence Plan 2024–2028" (PBIA), was published in July 2024 by the MCTI (Johansson Neto, Farias da Costa, & Gaspar, 2024: 3). The PBIA is a response to the recent shifts in the AI landscape and focuses on the achievement of technological and data sovereignty through an increase

in control over Brazil's digital landscape. The PBIA is also aligned with the Digital Transformation Strategy (2018), as well as the National Digital Government Strategy (2024) (Johansson Neto, Farias da Costa, & Gaspar, 2024: 3-4).

The proposed budget for PBIA is R$ 23 billion (USD4b) and will come from the federal budget, the FNDCT (the National Fund for Scientific and Technological Development), private sector counterparts, and other sources of resources (not specified in the report). The PBIA has 54 prescribed structural actions divided between five key initiatives. These initiatives are: 1) upgrading Brazil's Santos Dumont supercomputer to top five status in the world (USD320m); 2) the construction of a robust large language model (LLM) in Brazilian Portuguese and the upscaling of curated national datasets for natural language processing training ($200m); establishing a secure government cloud for confidential documents (USD180m); creating renewable energy-powered data centres (USD360m); and a programme for funding AI projects in the industrial sector through 500 different initiatives (USD1.63b) (Johansson Neto, Farias da Costa, & Gaspar, 2024: 4).

1.5. Conclusion and recommendations

1.5.1. Policy Advisory Systems

The policy advisory ecosystem in Brazil is truly complex, reflecting the fragmented and decentralised nature of its political system. In an effort to centralise this system, the Casa Civil exists as a central node through which policy flows before it is signed into law by the President. The potential problem is its vulnerability to drastic policy changes by the President. Despite this, Brazil has in recent years seen the successful implementation of policies, especially in the digital sector. The case study of PIX has shown the high degree of cooperation between many different entities (like sub-chiefs and secretariats housed in different line ministries; public think tanks like IPEA that specialise in policy development; and regulatory bodies like the CGU), at different stages of policy development, all coordinated through the Casa Civil that resulted in the successful launch of the system. Although South Africa has a Westminster-style government and therefore more centralised than Brazil, there may be merit in having a central government-funded body through which policy flows. It ensures that all government policy adheres to legal requirements, is consistent and of a high standard, and is centrally guided. Based on the above, here are some recommendations for improving policy advisory systems in South Africa:

- **A central policy body within the Executive should be established through which all policy proposals flow.** This entity should be publicly funded and should coordinate with both internal and external advisory bodies on a regular basis.
- **An independent compliance and oversight entity (like CGU) should be created** to audit, investigate, and ensure legal integrity and transparency in the policymaking process.
- **A collaborative environment should be fostered between government advisory bodies and independent entities to improve the quality and evidence base of policy.** The Brazil case has shown that flexibility in its ability to draw from various specialised units (like IPEA, but also external bodies like FGV) adds value to the policy process.

1.5.2. Digital tools and AI

Brazil has a successful track record in digital governance. It has launched a number of innovative digital tools, including the world's most accessed online government portal (GOV.BR). With regard to the use of Artificial Intelligence (AI) in policymaking in Brazil to be efficient, safe, and compliant with data privacy laws and individual rights, the government launched its updated policy statement called "AI for the Good of All: Brazilian Artificial Intelligence Plan 2024–2028" (PBIA), in July 2024. Following the example of Brazil, here are some recommendations regarding the use of digital tools and AI:

- **Digital public infrastructure is to be regarded as equally important as other long-term public infrastructure such as that built for such as water, sanitation, electricity, and roads.** Accordingly, a clear strategy for public service digitalisation should be developed, supported by a dedicated ministry (similar to Brazil's Ministry of Management and Innovation in Public Services – MGI) and by specialised implementation units (such as the Secretariat of Digital Government – SGD). This strategy should also include the establishment of a National Data Infrastructure to enable secure and efficient data sharing between government systems.
- **A single, user-friendly digital government portal should be developed to consolidate all public services.** These digital services must be designed with a citizen-centric approach, ensuring that the real-life challenges faced by users in adopting these systems are prioritised. By doing so, user satisfaction, trust, and the legitimacy of public services will be enhanced.
- **Cross-sector collaboration and partnerships among government institutions, civil society, academia, and startups should be fostered** to cultivate a thriving digital ecosystem.
- **Regulatory frameworks should be designed to remain adaptable to rapidly evolving technologies such as AI, while ensuring that public rights are safeguarded.** Additionally, digital sovereignty should be advanced by strengthening government computational capabilities (as demonstrated through Brazil's investments in supercomputing) and by establishing a secure cloud infrastructure for government data.
- **No digital tools developed specifically for enhancing Brazil's central government PAS were identified.**

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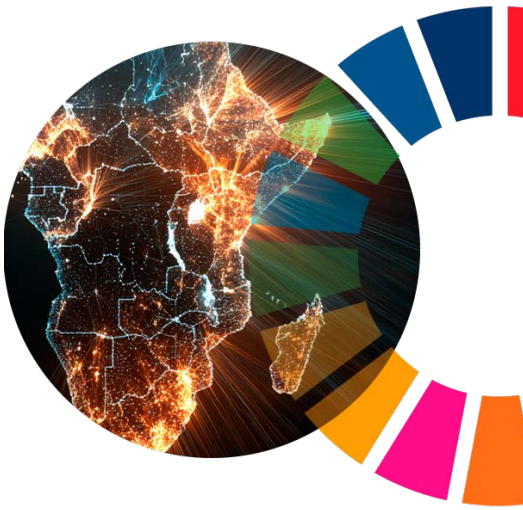
KENYA



2.1. Introduction

This report aims to analyse the internal policy advice system (PAS) within the central government of Kenya with the following objectives:

- Understanding and analysing how the PAS works in Kenya (key entities, actors, and processes).
- Exploring if and how AI and digital tools are being utilised to enhance policy advice.
- Making recommendations to Policy and Research Services (PRS) that apply to the South African policy advice framework.

The report will consider the policymaking context in Kenya as a point of departure and then examine each objective in different sections outlined below.

2.2. Politics and Policy Context

Kenya is a lower-middle-income country with a population of 57 million, as of January 2025 (World Bank, 2024). According to DataReportal (2025), 30.3% of Kenyans live in urban areas, while 69.7% live in rural areas. The median age is 20, with half the population above that age and half below. Both South Africa and Kenya share similar socio-economic and governance challenges. According to the latest Afrobarometer Survey (2024-2025), Kenyan citizens blame the government for the post-pandemic struggling economy, and a majority say the country is heading in the wrong direction. Most Kenyans report experiencing shortages of basic life necessities and view health, increased cost of living, poverty, and unemployment as the most important problems facing the country. Kenyan citizens are also deeply concerned about corruption and poor service delivery.

Kenya was a British colony from the late 19th century until independence in 1963. Jomo Kenyatta became the first President in 1964, and his party, the Kenya African National Union (KANU), consolidated power and silenced opposition groups. After Kenyatta's death in 1978, Daniel arap Moi assumed the presidency. Under Moi, Kenya became a de facto one-party state, and in 1982, a constitutional amendment officially made Kenya a one-party state, with KANU as the sole legal party. Growing domestic unrest and international pressure led to the reintroduction of multiparty politics in 1991. Despite this, Moi retained power in the 1992 and 1997 elections, which were tainted by vote-rigging and politically motivated ethnic violence. In 2002, the opposition united under the National Rainbow Coalition (NARC) led by Mwai Kibaki and defeated KANU in a landmark democratic transition. This peaceful transfer of power marked a turning point in Kenya's political history. However, the 2007 elections saw renewed violence amid allegations of electoral fraud. A power-sharing agreement was brokered by international mediators in 2008 and created a coalition government with Kibaki as President and Raila Odinga as Prime Minister. In 2010, Kenyans overwhelmingly voted in favour of a new constitution, which introduced devolution, stronger checks and balances, and an independent judiciary. This was a major milestone in the country's democratization process (Barkan, 2004; Cheeseman, 2008; Branch, 2011).

Historically, under colonialism, the policymaking process was dependent on expatriate advisers and small groups of senior civil servants (Alila & Hyden, 2021). This meant that in the decades following colonialism, there was a traditional reliance on external actors in the form of donors, international organisations, and

consultants, who all had a vested interest in the policymaking process. The outcome of this is that policies risked failure due to being generated without local knowledge. Commitment to policy implementation was also jeopardised without local interest (Alila & Hyden, 2021). Traditionally, therefore, policymaking in Kenya has been highly centralised with a top-down or elitist approach and focused on capital accumulation for the well-off to the detriment of the poor and marginalised. In recent years, however, with the rise of civil society organisations (CSOs) and the involvement of local universities and research institutes in the policymaking process, a shift has taken place with a more pluralist approach to policymaking. There has been a restructuring of institutions and legislative reforms to allow space for a variety of policy actors and public participation. This approach culminated in the adoption of the 2010 constitution, which provides a framework for citizen engagement and participatory governance.

There are a range of actors involved in the public policymaking process (see Appendix A), which are outlined in Table 1 below:

Kenya Table 1: Actors in the Kenyan public policymaking process

Government ministries, departments, agencies and counties
Cabinet / county executive committees
National and county assemblies and senate
Government research units
Judiciary
Attorney General
Citizens
Constitutional commissions and independent officers
Political parties
Think tanks, academia, research institutes
Media
Private sector institutions
Community service organisations
Council of governors
Religious organisations

Source: *Author (2025)*

The focus of this report is to highlight key entities, actors, and processes internal to the central government policy advisory system (PAS) of Kenya, and therefore discussion will largely focus on this tier of government and related actors.

2.3. Methodology

A qualitative research design approach is followed using the secondary analysis of data (desktop research). Data was gathered from publicly available secondary sources, including: government publications and policy documents, academic journals and books, research articles, pan-African public opinion survey, reliable news sources, international organisation reports, official websites, and digital repositories. To ensure relevance, sources were selected based on the credibility of the author or institution, recency, relevance to the research objectives, and availability of empirical data or policy insight.

This mixed-source approach promotes the reliability of findings as sources include academic, government-based, and real-world perspectives. As this research is based solely on secondary data, it may be limited by the lack of primary stakeholder perspectives and up-to-date country-specific information. It was not possible to interview key role players in the PAS within the central government of Kenya. Due to the limited time allowed for the research, it was not possible to arrange institutional ethical clearance for in-depth interviews. Organising the latter is time-consuming, and the alternative option of online interviews is not ideal as the response rate is much lower than in-person interviews.

2.4. Policy Actors, Entities and Processes in Kenya

Since the adoption of the 2010 Constitution in Kenya and the shift away from reliance on external actors in terms of policy formulation, there has been a move towards more evidence-based policy development. Public policymaking takes place on a national and county level and involves a broad range of actors who fulfil various roles in the process. This section will discuss the main actors, entities, and processes involved in the policymaking space. Table 2 below outlines the structure of the Kenyan Government as a point of reference.

Kenya Table 2: Structure of Kenyan Government

Executive	Office of the President (**policy initiator**) Office of the Deputy President (**policy coordinator**) Office of the Prime Cabinet Secretary Cabinet Secretaries (**technical policy development**) Cabinet Ministries
Legislative	Parliament: National Assembly + Senate
Judicial	Superior Courts + Subordinate Courts
Devolved Government	47 Counties (each with own government: county assembly + executive)

Source: *Authors (2025)*

2.4.1. The Presidency

The Presidency of Kenya includes the offices of the President, Deputy President, Prime Cabinet Secretary, and the Cabinet (Government of Kenya, 2023).

The President (currently President Ruto) plays a central and influential role in public policymaking, as both the Head of State and Government. Through the annual State of the Nation Address, the President sets the policy agenda and outlines key policy priorities and legislative proposals. The President chairs Cabinet meetings, where national policies are discussed and approved before being presented to Parliament. In 2023, President Ruto announced that Cabinet meetings were to be paperless with cabinet secretaries using digital tablets and notebooks (Citizen TV Kenya, 2023). The Presidency provides overall policy direction, ensures implementation, and oversees national development priorities. The President also chairs the National Security Council (NSC), influencing policies on security and defence (Office of the President of Kenya, Executive Order 1 of 2023). The Deputy President assists with the coordination and implementation of government policy across the different ministries. The Prime Cabinet Secretary assists the President and Deputy President in the coordination and supervision of government ministries and state departments and liaises with the cabinet secretaries. The latter each oversee a ministry and are responsible for drafting and implementing policies in these sectors. The Cabinet provides policy and legislation advice and approves public policies and budget estimates (Office of the President of Kenya, Executive Order 1, 2023).

While the President and Presidency play a crucial role in policymaking, Parliament, the Judiciary, and county governments provide checks and balances (in theory) to prevent excessive presidential influence. The President does have the power to agree to or reject bills that shape public policy (Monyani, 2025). If the President declines a bill, it is returned to Parliament with recommendations. For example, in January 2024, Kenya introduced a policy of visa-free entry for Africans and announced an electronic travel authorisation system, which became a bureaucratic stumbling block for many travellers, effectively creating a digital barrier to entry (Monyani, 2025). Towards the end of 2024, it became apparent that Kenya's poorly executed visa policy was impeding access to the country due to difficulties with the digital platform. Cabinet (led by the Presidency) re-evaluated the policy (December 2024) and reversed it (January 2025), which meant that all Africans were exempt from the electronic travel authorisation system (ETA) requirement. In this instance, Cabinet displayed flexibility and willingness to respond to data (African Visa Openness Index Ranking and traveller feedback), which indicated that the policy was not working (Monyani, 2025).

Within the Office of the President, the Presidential Policy and Strategy Unit (PASU) provides policy advice directly to the President. This unit's key focus areas are: AI, digital economy, digital transformation, security, and governance. PASU contributes to policy formulation by commissioning research, collaborating with other entities, focusing on government priorities, and developing evidence-based recommendations informed by diverse voices (Presidential Policy and Strategy Unit, n.d.). With devolved government and multiple stakeholders in the policy space in Kenya, this unit plays a critical role in the formulation and co-ordination of government policies, working with the various ministries, departments, and agencies (MDAs) (PASU and Population Council, 2021). Specific details about the internal structure of the unit and its establishment date are not publicly available, although there are reports mentioning it from 2021. The unit is also not referenced in the Public Policy Handbook of Kenya (March 2024), nor is there any information on the Presidency website.

In addition to PASU, there is another unit called the Government Delivery Unit (GDU), which falls under the rubric of the Presidency but is specifically located within the Office of the Deputy Chief of Staff, Performance and Delivery Management. Its chief purpose is to improve the coordination of the National Government's flagship programs, monitor, evaluate, and report on the implementation of key development priorities, programmes, and projects. This unit has a website with a user-friendly interface, allowing citizens to monitor the progress of government delivery at the county level (Government Delivery Unit, 2024).

2.4.2. Ministries, Departments, Agencies and Counties

Ministries, through Cabinet Secretaries (CSs), develop policies under the President's guidance. Government Ministries, Departments, Agencies and Counties (MDACs) are responsible for addressing policy issues that require interventions and provide input for policy formulation. They undertake stakeholder engagement as well as policy analysis to inform decision-making. They also implement, monitor and evaluate the implementation of public policies. The State Department for Economic Planning and the State Department for Parliamentary Affairs, in particular, play key roles in co-ordinating, implementing and monitoring government policies. The State Department for Parliamentary Affairs has a policy analysis and advisory division which focusses on identifying and collaborating with relevant institutions on policy research and analysis; provides policy advice on the implementation of the national development agenda; co-ordinates and tracks policymaking in all MDAs; and monitors and evaluates the implementation of National Government policies. The division provides policy input primarily within the Executive branch but plays a strategic role in informing the Executive's engagement with the Legislative branch (State Department for Parliamentary Affairs, 2024).

The Public Policy Handbook (March 2024) is an essential tool that attempts to provide standardisation across all the different policy actors and processes which make up the complex public policymaking process in Kenya. The handbook focuses on ministries, departments, agencies, and counties who are required to use it. It is also a reference document for the private sector, development partners, and non-state actors. The Public Policy Handbook is the responsibility of the Office of the Prime Cabinet Secretary, who co-ordinates its implementation across different levels of government. The handbook does not contain any information which references the use of Artificial Intelligence (AI) in policy advice or the public policy process.

2.4.3. Advisory Committees

Government advisory committees or policy advisory committees (PACs) provide knowledge, evidence, and advice with the aim of improving the quality and legitimacy of policymaking in Kenya. Tracking these advisory committees is difficult as there is no national register of government committees nor a register of members. There are approximately 64 parastatals with a regulatory function and over 100 committees created by the government to offer policy advice. PACs are formed by ministerial directive or through specific legislation (Afro Blog, n.d.).

Some committees are created for short periods with specific objectives (for example, Competence-Based Curriculum Taskforce; Covid Taskforce), while others have a longer life (National Economics and Social Council; National Skills Development Policy Technical Committee) (Irwin & Kyande, 2023). These committees can have private sector representatives, and some are required to (for example, the Labour Migration Advisory Committee and Decent Work Committee). Most of their interaction is with the executive arm of the National Government, and reports / proposals are submitted to the cabinet secretaries. The purpose of the committees is defined by the ministry they are linked to (Irwin & Kyande, 2023; Kenya Law Reform Commission, 2025).

Business associations seek representation on these policy advisory committees and parastatal boards. At times, this is a competitive process, and at other times, the government simply appoints representatives (for example, the Kenya Private Sector Association sits on the Agriculture and Food Authority and the National Transport and Safety Authority) (Kenya Law Reform Commission, 2025). There is therefore some level of patronage with regard to the appointment of private sector representatives, but research indicates that committees are effective in the policymaking process (Irwin & Kyande, 2023). However, several recommendations have been made to improve the role of PACs in Kenya (Irwin & Kyande, 2023):

- Not every stakeholder can be involved – larger committees are less balanced and deliberative, and smaller committees are more effective.
- Government should be more transparent about its boards and PACs – a directory would make it simpler for citizens to keep track of who sits on what board and committee.
- Every board or committee should publish a publicly available annual report which focuses on impact and value, not just activity.

2.4.4. Research Units

The government has multiple research units operating across various MDAs that focus on policy analysis, innovation, and evidence-based decision-making. Most also seem to include a focus on AI and digital tools in their area of focus. Table 3 below lists these units and briefly describes the role that each unit plays in the policymaking environment in Kenya:

Kenya Table 3: Policy Research Units

Research Unit	Role in terms of policymaking
Research and Innovation Unit, Ministry of Information, Communication and the Digital Economy	Driving tech policy; digital transfer and innovative ecosystems. Provides data driven policy recommendations to government and supported development of the National AI Strategy.
National Committee for Science, Technology and Innovation (NACOSTI)	Promotes scientific research and tech innovation. Supports policy frameworks for AI and emerging technologies.
Parliamentary Budget Office (PBO)	Provides research and analysis on budgetary, fiscal and economic policies to guide decision making.

Central Bank of Kenya (CBK) Research Department	Provides research on monetary policy, financial regulation and macroeconomic trends.
Kenya National Bureau of Statistics (KNBS)	Collects and analyses statistical data for policy planning and national development.
Public Service Commission (PCS) Research and Policy Analysis Division	Conducts research on public sector reform and digital governance (e-government, AI-powered HR solutions).
Vision 2030 Delivery Secretariat (VDS) Research Unit	Conducts research to track implementation of Vision 2030 and focusses on digital transformation impact reports and national AI policy alignment.
Kenya Medical Research Institute (KEMRI)	Conducts medical and public health research to inform health policy. Also focusses on AI in healthcare and digital health records.
Kenya School of Government (KSG) Research and Advisory Services	Conducts multidisciplinary, evidence-based research across the public sector and provides policy briefs to government. KSG houses the Regional Centre of Competence in Digital and AI Skilling for the Public Sector. This Centre is set to offer cutting-edge training and capacity building in digital tools and AI to the public service.

Source: *Author (2025)*

This is not an exhaustive list but provides a good overview of the scope of research units operating within the policymaking space. All these units fulfil slightly different roles in terms of policy advice, and it is not possible to discuss each one individually. However, it is useful to illustrate the link between research and policy advice using the example of the Kenya Medical Research Unit (KEMRI), as healthcare is a major concern for most Kenyans and a policy priority area. KEMRI produces policy briefs that turn research findings into actionable recommendations for policymakers. These briefs cover a range of topics, including health workforce management, health financing, and disease control strategies. Through its Policy Engagement & Knowledge Translation Unit, KEMRI actively engages in translating research evidence into policy. This involves regular interactions with policymakers to ensure that research findings are accessible and applicable to policy decisions. KEMRI organises forums that bring together researchers, policymakers, and other stakeholders to discuss research needs and policy priorities (KEMRI-Wellcome Trust Research Programme, 2023).

The above discussion demonstrates the broad range of actors and multiple processes at work within the policymaking context in Kenya.

2.4.5. Policy Actors External to Central Government

The focus of this report is on actors, entities and processes internal to central government; however, it is necessary to discuss the role of the Kenya Institute for Public Policy Research and Analysis (KIPPRA), as although it is a public institution external to central government, its primary mandate is to supply quality policy advice to the government. It was formally established in May 1997 through a Legal Notice, following a Presidential Statement issued on 14th November 1996. The institute commenced its operations in June 1999. In January 2007, the President signed the KIPPRA Bill into law, and the KIPPRA Act No. 15 of 2006 came into effect on 1st February 2007, providing a statutory framework for its operations (KIPPRA, 2022). As of May 2025, KIPPRA has been in existence for 28 years since its formal establishment.

It is primarily funded by the Government of Kenya but receives financial support from international development partners and donors for specific projects (RISA, 2022). It has a direct link to government and focuses on evidence-based research with analytical rigour. In terms of its research output, KIPPRA advises different levels of government, and its findings are disseminated through reports, workshops and direct engagement with ministries, departments and government officials (KIPPRA, 2019). KIPPRA was established (Gazette Notice of 9th May 1997) to strengthen capacity for public policy research and analysis and to offset the traditionally heavy reliance on policy proposals generated by external actors like donors, international organisations and consultants.

KIPPRA facilitates the Kenya Think Tank Forum (KTTF), founded in 2018, to bring together think tanks to strengthen dialogue with the government in the policymaking process . It holds a symposium each year to discuss current policy issues and promote the sharing of evidence. KIPPRA is of the view that universities, civil society organisations, and think tanks are still not sufficiently considered in the public policymaking process (KIPPRA, 2019).

In March 2024, KIPPRA conducted a Policy Researchers' Workshop focusing on equipping policy analysts with advanced skills, including the adoption of AI techniques. The workshop emphasised developing effective research methodologies and using AI to enhance policy research, thereby improving the quality and efficiency of policy analysis. KIPPRA has also partnered with IDinsight, a global advisory and data analytics organisation, to advance evidence-based policymaking. This collaboration involves employing data-driven approaches (including machine learning) to inform the policymaking process. The partnership focuses on joint research and evaluations in areas such as public finance management and programmes empowering women and persons with disabilities (KIPPRA, 2021).

KIPPRA has conducted research on the implications of emerging digital technologies, including AI, in various sectors. For instance, their work on cybersecurity examines the challenges and opportunities presented by AI and other technologies, providing policy recommendations to safeguard Kenya's digital infrastructure. KIPPRA plays an important role in terms of providing data-driven policy advice for policymakers and is committed to integrating AI into policy research and analysis (KIPPRA, 2021).

The 2010 Constitution heralded a new dawn for policymaking in Kenya with an emphasis on the participation of multiple local stakeholders (CSOs, local universities, and research institutes) and the shift to evidence-based policymaking. Policymaking structures in Kenya are complex and multilayered. The Presidency and units within the Presidency (PASU and the GDU) play an influential role in the PAS, but there is little publicly available information on these units. Cabinet, ministries, departments, agencies, and counties are all involved in policy formulation and implementation at various levels, guided by the Public Policy Handbook, which at this stage makes no reference to the use of AI or digital tools in the PAS. Along with multiple advisory committees and research institutes, mention must be made of KIPPRA, which is external to the central government but since 1999 has been instrumental in supplying quality, data-driven policy advice to government.

2.5. The Use of AI and Digital Tools to Enhance PAS within Government

Section 5 examines whether AI and digital tools are used to enhance PAS and will consider the National AI Strategy (2025-2030), the role of Big Tech and foreign actors, and the role of individual tech and policy experts. The challenges to leveraging AI in policy and governance initiatives in Kenya will be briefly discussed.

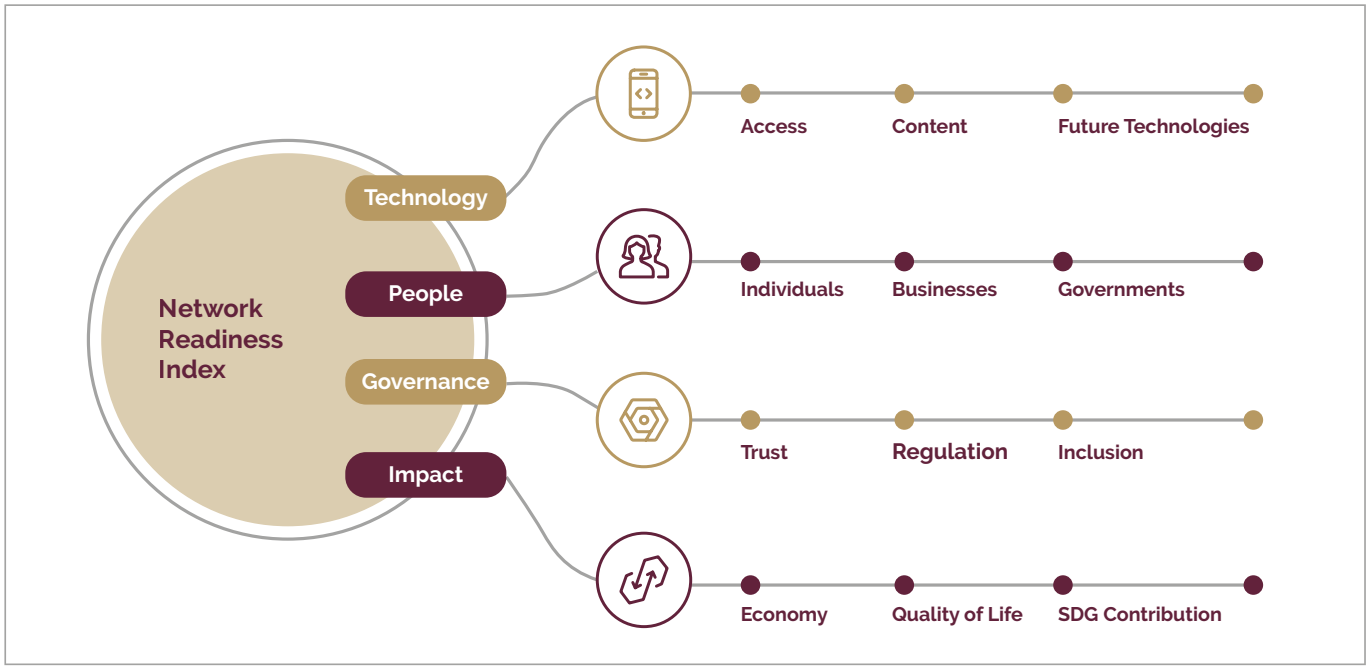
2.5.1. The Digital / Technology Context

Kenya has made significant progress in developing digital infrastructure with extensive investment in this area and the explosion of affordable internet services. An example of this investment is the Konza Technopolis, or "Silicon Savannah," being built by the government as a key driver of the National Development Plan (Kenya 2030). It is located 64km South of Nairobi and will house the country's data centre. It is envisaged as a smart city hub for technology, innovation, and business. Kenya is rated as "highly mature" on the World Bank GovTech Maturity Index (the index measures how countries are digitising public services). The country is known as a technology hub in Africa with the widespread use of M-PESA (mobile money) and eCitizen, which is a centralised service delivery platform for online government services (see Appendix B).

As of January 2025, approximately 27.4 million Kenyans were connected to the internet, representing an internet penetration rate of 48% of the country's population. This represents a marked increase from early 2024, when there were about 22.71 million internet users (40.8% penetration rate). Despite this growth, around 29.6 million Kenyans, or 52% of the population, are still offline as of early 2025. The expansion of mobile connectivity has been a key driver of internet access in Kenya. By early 2025, the country had 68.8 million mobile connections, exceeding the total population due to individuals using multiple SIM cards for personal and professional purposes (DataReportel, 2025; TechJournal, 2025).

According to the 2023 Network Readiness Index (NRI), Kenya ranks 70th out of 134 economies globally, making it the highest-ranked African nation in the index. Figure 1 below demonstrates the categories included in this index. Kenya's main strength is in the governance category, where it ranks 40th globally, reflecting strong digital governance frameworks (Portulans Institute, 2023). However, there is scope for development in the People category, which assesses aspects like digital skills and digital inclusion.

Kenya Figure 1: Network Readiness Index (2023)



Source: *Portulans Institute (2023)*

The Kenyan government is now actively engaging with AI to enhance the policy formulation process. In addition, it has established a robust governance framework for the responsible and ethical use of AI in various sectors, for example, agriculture, security, healthcare, education, and service delivery.

Laying the groundwork for the National AI Strategy is the Open Government Partnership (OGP) which is a global initiative launched in 2011 to bring together governments and CSO's to promote transparency, accountability and citizen participation. The 5th National Action Plan on OGP shows Kenya's commitment to open governance through various initiatives aimed at improving public service delivery, strengthening oversight and accountability, promoting citizen engagement, leveraging technology, and institutionalising open governance mechanisms.

The government is committed to improving availability of data for development and aims to make available in machine-readable format (with appropriate licensing) all data on financial resource management, implementation, planning, and monitoring of government programmes, projects, and processes to improve evidence-based policymaking (OGP, 2023: 33). Plans are underway to develop machine learning for financial inclusion and to broaden access to financial services through innovative AI applications. However, the existing Kenya Open Data Initiative (KODI) is still currently offline and has been for a number of years, despite being launched in 2011. While these initiatives reflect the government's proactive stance on broad AI integration, there is a strategic move towards leveraging AI to specifically enhance decision-making and service delivery, for example:

- AI-driven **chatbots and virtual assistants** provide automated responses for government services like tax inquiries. The Kenya Revenue Authority (KRA) is planning to use AI to help reduce tax evasion and expand the tax base and has an AI-powered chatbot in place to respond to tax inquiries (Nextrade Group, 2024; Regtech Africa, 2024).
- AI-powered **NLP** tools analyse **citizen feedback** from social media, surveys, and government platforms to understand public concerns. Research is ongoing into developing solutions for local languages where chatbots can interact with these languages. Kenya is a multilingual country with over 60 languages spoken despite only two official languages (English and Kiswahili) (Ndung'u, Otieno & Mwangi, 2024).
- AI-powered systems analyse **weather patterns (drought prediction models), soil health, and crop yields**, guiding the Ministry of Agriculture in formulating food security policies and allocating resources (Toro, 2024).
- AI-powered **facial recognition** and **predictive analytics** help law enforcement agencies detect crime hotspots and improve public safety policies.
- AI is used in **cybersecurity** to prevent threats against government institutions and critical infrastructure.
- AI models analyse **health records** to track disease outbreaks (COVID-19, malaria) and support public health planning (ICAP, 2025).
- AI-driven **telemedicine platforms** guide policies on healthcare accessibility, especially in remote areas1 (World Health Expo, 2024).
- AI is used in **traffic management systems** (Nairobi's Intelligent Transport System) to reduce congestion and shape transport policies (The Star, 2025).
- AI-driven **geospatial analysis** helps in smart planning for human settlements, infrastructure development and the monitoring of water scarcity and consumption (DevAfrique, n.d.; Thigo, 2025).

1 Telemedicine is the use of telecommunication technologies such as video calls, mobile apps, and digital platforms to provide remote clinical healthcare services.

Kenya is also experimenting with the use of the blockchain, for example:[2]

- **Health:** A blockchain-based platform is being rolled out to link all 98 public hospitals in Kenya, making it easier to share and access essential patient data. It will enable sharing of treatment data between healthcare personnel in towns and rural settings which are under-resourced. A treatment scrutiny system will also be put in place to reduce incidents of wrong diagnosis.
- **Motor Vehicle Registration:** Kenya's National Transport and Safety Authority (NTSA) is implementing a blockchain-driven electronic motor vehicle identification system which will identify stolen vehicles or vehicles that are not roadworthy. The blockchain platform that will power this will also have interconnectivity with the law enforcement agencies as well as the revenue authority, immediately identifying a vehicle's status.

Whilst the country has been experimenting with various AI initiatives as highlighted above, it has also been developing a national AI strategy to drive the process of adopting AI and digital tools. The National AI Strategy document (launched on the 27th of March 2025) highlights the government's broad AI vision and emphasises the importance of AI in driving innovation and improving public services.

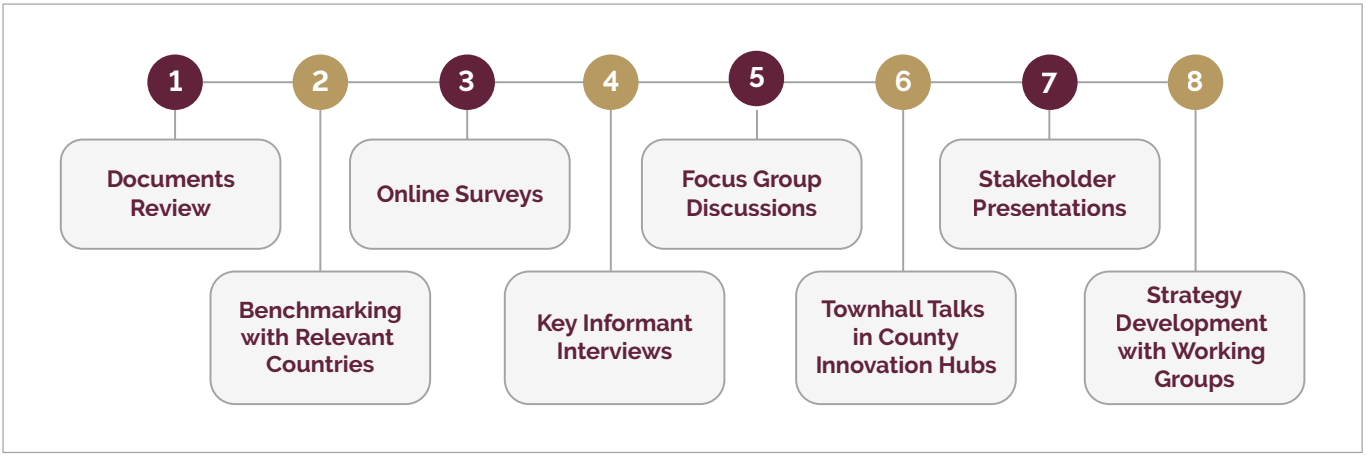
2.5.2. Kenya National AI Strategy

At the forefront of government's broader digitisation agenda is the Kenya Digital Master Plan (2023). It outlines strategies for digital government services, products, and data management. A key project mentioned is the digitisation of 5 billion government records. The Master Plan also emphasises the incorporation of AI-driven solutions in the deployment of government services. It aims to create a digital ecosystem where digital technologies are leveraged for economic growth and improved public services. The development of a robust legal and regulatory framework for the digital sector, including emerging technologies like AI, is also a key focus. The Master Plan includes projects like the development of an open data policy and the establishment of a government framework for the adoption and utilisation of smart technologies (including AI, IoT, Blockchain). The Plan has laid the groundwork for the National AI Strategy.

The National AI Strategy was developed using a unique participatory approach implemented by the Global Partnership for Sustainable Development Data (GPSDD) in partnership with the Ministry for Information, Communications and the Digital Economy. Multiple stakeholders were included in this process: government entities, private industry, academia, civil society, international partners, and the broader public. These stakeholders participated in several data gathering initiatives, like co-creation and stakeholder workshops; key informant interviews; focus group discussions; town hall meetings in counties; an online survey, and a public participation process to rework the final draft. This type of participatory model will hopefully build public trust in eventual AI policies and buy-in from multiple stakeholders (Mutuku, 2025). The process indicated a significant shift from the more traditional, centralised policymaking approach seen in Kenya, where policy precedes strategy and is generally top-down. Figure 2 below details the methodology of this process:

2 The OECD defines blockchain technology as a digital, distributed ledger system that acts as an open, shared, and trusted record of transactions among parties, not controlled by a central authority (OECD, 2018).

Kenya Figure 2: National AI Strategy Participatory Model



Source: *Kenya National AI Strategy, (2025,23)*

Although specific details on the direct use of AI by actors in the policy process are limited, the National AI Strategy document shows a strong national commitment to integrating AI into governmental functions and enhancing public-sector efficiency and service delivery. It is important to note that this commitment is a strategy (at this stage) and therefore a broad vision rather than actual policy, but it does indicate how policymakers in Kenya will utilise AI in decision-making, in analysing policy outcomes, in engaging with the public and in improving operational efficiency (National AI Strategy, 2025). These key aspects of the National AI Strategy are outlined below:

- Data-driven decision making – the use of AI to analyse complex datasets so that policymakers can more effectively use empirical evidence in the formulation of policy.
- Predictive analytics for policy outcome – the use of AI predictive models will assist policymakers to forecast potential outcomes of various policy options.
- Public engagement – the use of AI to more effectively communicate with citizens through natural language processing (NLP) and sentiment analysis which allows policymakers to gauge public opinion.
- Operational efficiency – the use of AI tools within government operations to streamline processes, reduce 'red tape' and improve policy formulation and service delivery.

The National AI Strategy therefore promotes the use of AI and digital tools as a means of understanding public concerns, promoting citizen engagement, and improving service delivery. It is therefore a vital strategy document that should influence both agenda-setting with the policy advice system as well as policy output.

2.5.3. The Role of Big Tech and Foreign Actors in Kenya

Big Tech companies play a critical role in fostering an ecosystem in Kenya where policy advice and outcomes are enhanced by innovative AI and digital tools. The Kenyan government has created an attractive environment for these companies to operate in Kenya. Most prominent amongst these are Microsoft, which opened the first Africa Development Centre in Nairobi to drive AI and Cloud solutions (for example, their AI for Good projects that support agriculture and healthcare). International Business Machines Corporation (IBM) has a research lab in Nairobi which works on AI-powered agriculture and Fintech solutions, as well as digital identification and blockchain-based governance solutions. Google (Alphabet Inc.) opened its Google Africa office in Nairobi and invests in digital skills training for thousands of Kenyans. Intel, Meta, Apple, and Amazon all have a presence in Kenya. Kenya is ideally placed in East Africa as a base for companies wanting to explore and access regional markets. It is attractive to tech companies due to its relatively advanced digital infrastructure, its youthful population, proactive government, and startup ecosystem – all these factors support the development and delivery of technology solutions in Kenya (ITA, 2023; Konza Technopolis, n.d.; National AI Strategy, 2025).

Kenya's active participation in global AI governance initiatives shows its interest in shaping international AI policies and collaborating with foreign actors. The country's involvement in networks alongside Australia, Canada, and the United States positions Kenya as a leader in advocating for inclusive and ethical AI systems. The National AI Strategy development process was also crucially supported by a number of foreign actors: the Global Participation for Sustainable Development Data (GPSDD), the German Federal Ministry of Economic Cooperation and Development (BMZ), and the European Union (EU) through the Digital Transformation Centre, implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Canada's International Development Research Centre (IDRC), and the UK's Foreign, Commonwealth, and Development Office (FCDO). KIPPRA also partners with IDinsight – a global data advisory and data analytics organisation (National AI Strategy, 2025).

Although external to the central government, these foreign actors and Big Tech companies play a significant role in supporting and fostering an environment for the innovative use of AI in the Kenyan policymaking space.

2.5.4. The Role of Individual Technology and Policy Experts

The role of individual experts within the central government of Kenya, in championing AI and digital tools to enhance the policymaking process and governance in general, needs to be noted. Joseph Mucheru (Former Minister for Information and Communication Technology, 2013-2020) is a good example. He came from a technology background, having worked as the Sub-Saharan Africa lead for Google, and was instrumental in the government's initial adoption of AI in relation to government functions during his time in office.

Currently, Ambassador Philip Thigo is the Special Envoy on Technology, Office of the President of Kenya, and a key advocate of AI Machine Learning (he is the first tech ambassador in Africa)[3]. In 2023, he was appointed by the United Nations Secretary-General to the UN High-Level Advisory Board on AI (HLAB). He was the founding director for Africa for the Thunderbird School of Global Management at Arizona State University and has previously worked in international organisations in Africa, the Middle East, and Asia. He co-founded the Budget Tracking Tool and Huduma (initiatives aimed at promoting government transparency and accountability)[4]. He also co-created Uchaguzi (a platform designed to monitor elections and enhance citizen engagement) with the support of Ushahidi[5].

Ambassador Thigo works closely with President Ruto on technology-related matters, and the President himself is a strong advocate for the use of AI and digital tools in government. Both the President and the Ambassador have visited Silicon Valley (in the case of the Ambassador, multiple times) and engaged with tech executives from Apple, Google, Intel, and Microsoft, amongst others. Ambassador Thigo is the leader in Kenya's participation in the OGP, which aims to improve technology and innovation in government and partners with international organisations and the private sector in terms of AI adoption.

There is no doubt that AI innovation in policymaking requires human creativity and supervision. As Nobel Peace Prize Winner, Maria Ressa pointed out: "AI is neither artificial nor intelligent" (The Washington Post Live, 2024). Individual tech/policy experts play a critical role in Kenya's move towards harnessing AI and digital tools in the policy space and in terms of overall strategic AI development. Without critical human intervention with the necessary technological skill set and sound understanding of the policy process and unique Kenyan socio-economic and political context, this would not be possible. It would also not be possible without the political will demonstrated by the Kenyan Presidency.

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3 In 2023, AfricaCom named him among Africa's Top 100 Most Influential Leaders in Technology and Telecommunications. In 2024, Thigo was globally recognised by Mozilla under their RISE25 Award as one of five advocates leading the development of AI ethically, inclusively, and transparently. He is also one of the World's 100 Most Influential People in Digital Government, according to Apolitical.

4 Launched in 2013 to enhance efficiency, accessibility, and transparency in government services, which have now largely shifted to online services.

5 Ushahidi is a non-profit technology company founded in Kenya that develops open-source software for crowdsourcing, data collection, and crisis mapping. It means "testimony" or "witness" in Swahili. It was founded in 2008 after Kenya's post-election violence to track and report incidents in real time and uses crowdsourced data (SMS, email, web, and social media) to map crises, disasters, and human rights violations. Uchaguzi is a Swahili word meaning "election" and is a citizen-driven election monitoring platform that allows Kenyans to report election-related incidents via SMS, social media, and web submissions.

2.5.5. Challenges to Leveraging AI in Policy and Governance Initiatives in Kenya

The passion for technology is not shared by everyone within government circles. Kenya is still, in many ways, a very traditional society where adoption of new technology tends to take time. Although perhaps not a relevant issue in the policy advice space, there is a widespread fear that AI applications such as robots and automated machines could lead to job losses in many sectors (CIPIT, 2022).

More relevant to the policy environment is the uneven access to digital and AI technologies. As mentioned in 5.1, as of early 2025, 52% of Kenyans are still offline (DataReportel, 2025; TechJournal, 2025). This highlights the challenge of digital exclusion for many citizens who do not have access to a smartphone or the internet. The fear that AI adoption, particularly in the form of government services, will exacerbate the rural / urban divide and marginalise poorer communities even further is very real. This would exacerbate existing inequalities in the country and pose a challenge to the government's emphasis on citizen engagement.

The potential **misuse of data** is a concern. There is opposition to the use of facial recognition technology for example, as this technology could be used for identity theft. The Central Bank head, Dr. Kamau Thugge, has voiced opposition to the use of blockchain technology in financial transactions (The East African, 2023).

There is a **shortage of AI capability in government** public services in Kenya. While there may be some individuals with expertise, a broader understanding of how to effectively use AI and its policy implications is not common amongst most government departments and public services (KICTANet, 2025). A lack of digital literacy and skills amongst government officials and civil servants will be a stumbling block to the roll-out of AI and digital tools in the policy and governance space.

There is also the increasingly important challenge of expanding the use of digital services in a **low-trust environment**. MIT Governance Lab and Busara point out in a recent report on Building Trust in Government in a Digital World that the Kenyan government faces the challenge of convincing people to engage with online services in a low trust environment. In the latest Afrobarometer data (2024-2025) 55% of citizens say they distrust the Kenyan President, while 56% say they distrust the parliament / national assembly. The more pluralist approach to policymaking in Kenya since the adoption of the 2010 Constitution is admirable, but there is still often a blur between public and private interests. Issues of integrity among public servants persist, and the government still faces significant challenges in fully upholding this constitutional principle (Alila & Hyden, 2021). Research indicates that the use of digital technology has been considered to foster public trust by improving the transparency of government data, information, or decision-making processes (Virnandes, Shen & Vlahu-Gjorgievska, 2025). Digital technology can therefore play a role in increasing confidence in the policymaking process in a low-trust environment like Kenya (and South Africa).

Notwithstanding the real issues of digital exclusion, misuse of data and low trust, **sustainability** is also a challenge as servers and data centres needed to train and run many AI tools require significant energy (water and electricity) to operate (National AI Strategy, 2025). Data centres in particular may have an environmental impact and place a strain on resources in the long term.

This is a brief but not exhaustive summary of the challenges facing the Kenyan government in the adoption of AI and digital tools. The challenges of implementing AI and digital tools in the policy space are not unique to Kenya, but many of these challenges are more difficult to overcome in a lower-middle income country where inequality, unemployment, digital access and low trust are features. This is worth noting given the relevance to the South African context, which presents similar challenges.

Kenya has made significant strides in digital infrastructure and internet connectivity, positioning itself as a leading technology hub in Africa. The government's commitment to digital transformation is reflected in its high ranking on the World Bank GovTech Maturity Index and the Network Readiness Index, although challenges remain in digital inclusion and skills development. Kenya's National AI Strategy (2025-2030), developed through a participatory process, outlines a vision for integrating AI into policy formulation, public engagement, and service delivery, with applications ranging from agriculture and health to security and transport. Big Tech companies and foreign partners play a crucial role in supporting this ecosystem, while individual technology and policy experts within government support the adoption of AI and digital tools to enhance governance and public services.

2.6. Conclusions and Recommendations from the Kenya Case Study

The report provides a preliminary analysis of Kenya's policy advisory system (PAS) and the role of AI and digital tools within the governance space in Kenya. Although it has not been possible to find specific reference to digital tools used within the policy advice system of the central government of Kenya, the report has highlighted the emphasis on AI and digital tools in governance initiatives and strategy generally and specifically in areas of service delivery and citizen engagement.

Kenya's policymaking is evolving and has shifted from a historically centralised, top-down approach heavily reliant on external actors to a more pluralistic model involving civil society organisations (CSOs), universities, international organisations and research institutions. The adoption of the 2010 Constitution has further emphasised citizen engagement, participatory governance and the need for evidence-based policy development.

The President and the Presidency play a central and influential role in setting the policy agenda and ensuring implementation. PASU and the Ambassador for Technology provide direct policy advice to the President, focusing on areas like AI and digital transformation. Individual technology and policy experts, along with strong political will from the Presidency, are crucial drivers in championing AI and digital tools within the policy space. KIPPRA plays an important role in Kenya in terms of upskilling policy researchers (digital literacy) and including think tanks in the policy process. It offers a range of capacity-building programmes and partnerships to enhance policymaking skills[6].

The Kenyan government demonstrates a strong commitment to integrating AI and digital tools across various sectors, underpinned by the Kenya Digital Master Plan (2023) and the National AI Strategy, and is investing a substantial amount of resources in digital infrastructure (International Trade Administration, 2024; We Are Tech Africa, 2024). These initiatives aim to improve public services, enhance data-driven decision-making, and foster a digital ecosystem. The National AI Strategy was developed using a unique participatory approach involving multiple stakeholders, indicating a shift towards more inclusive policymaking. In terms of building a digital governance ecosystem that brings together government, civil society, technologists, and academia, Kenya is highlighting the role of public-private partnership in this process. The Kenyan government is working closely with international organisations, data analytic firms, and Big Tech firms as well as the private sector in Kenya. There seems to be great merit in building an ecosystem anchored in partnership with a range of actors before putting specific policies in place.

Uniquely, the Kenya National AI Strategy followed a process that places strategy before policy. The benefits of this approach are that strategy allows for vision while policy focusses on compliance (Irura, 2025). Strategy is more flexible (AI develops faster than legislation) and allows the Kenyan government to test digital tools (for example, Agritech tools and Fintech AI) before these are sealed into set policies. The participatory approach in developing the National AI Strategy is innovative and sets a precedent for other policy areas in Kenya and for human-centred AI innovation. The strategy is crucially grounded in the unique Kenyan socio-economic context and is more effective than a top-down approach. This approach "encourages dialogue and articulation of a vision before policies formalise rules" (Irura, 2025).

AI is being explored and implemented in various areas, including data analysis for policy formulation, predictive analytics for policy outcomes, public engagement through NLP, operational efficiency in government, healthcare, agriculture, security, and transport. Kenya has made significant progress in digital infrastructure and has a relatively advanced digital ecosystem, attracting Big Tech companies and fostering innovation. The government has also actively collaborated with foreign actors and participates in global AI governance initiatives. Despite progress, Kenya faces challenges such as uneven digital access, potential misuse of data, and a shortage of AI capability within the government, which can hinder the effective leveraging of AI and digital services.

6 Additional resources for upskilling civil servants include the apolitical platform which is an online resource used by civil servants in over 160 countries.

2.6.1. Recommendations related to PAS for Policy Actors in South Africa

Whilst the recommendations below are based on the analysis outlined in this report, they will certainly not contain all relevant or possible implications. Keeping this in mind and drawing on the Kenyan experience, South African policy actors can consider the following recommendations:

PASU, which sits within the Presidency and provides policy advice directly to the President, has a specific focus on AI, digital economy, digital transformation, and security and governance. It could prove **beneficial to have a similar unit sitting within the South African Presidency with a similar singular focus on AI and digital transformation.**

Kenya has many policy advisory committees and research units which feed directly into the PAS. Research shows that these committees are more effective if they are smaller and South African policy actors should take note of the **benefits of smaller committees** and the need for publicly available annual reports which demonstrate value rather than just activity.

The Kenyan example of using a **participatory approach** towards developing a National AI Strategy involving government entities, private industry, academia, civil society, and international partners is a valuable model to ensure buy-in and encourage public trust. South Africa is well underway in this regard and should **continue to focus on and strengthen a collaborative approach with a broad range of stakeholders.**

Similar to Kenya's engagement with KIPPRA, think tanks, and Big Tech companies, South Africa should **continue to cultivate strong relationships with external policy research institutions, academia, and the technology sector.** These collaborations can bring valuable expertise, resources, and innovative solutions to the policy space. However, it is important to be mindful of the influence of foreign actors and ensure that policy decisions align with national interests.

Kenya has had a number of **key individuals in government who have a unique combination of both policy and technology skills and expertise**. Ambassador Philip Thigo is currently a good example of an individual working within the central government of Kenya who understands AI and its capabilities, and has the necessary networks to create international partnerships with organisations and institutions. Similar to the role of the Kenyan Presidency and individual experts like Ambassador Thigo, South Africa needs **strong political leadership** at the highest levels to support the integration of AI and digital tools into policymaking and governance. **Identifying and empowering individual experts within government who can drive this agenda forward will be key.** Both the **investment in digital infrastructure** and the **political will** are crucial in this process.

AI could also be publicised as part of **political leadership speeches**. The Kenyan President and Ambassador Thigo are examples of political leaders that openly publicise the adoption of AI in Kenya. This could be integrated into press releases, media interviews, policy forums and parliamentary debates etc. which will demonstrate the government's intention to use AI to improve government efficiency, service delivery and policy making (Dixon, 2024).

In light of the above, South Africa could **consider appointing a Minister for AI** as a separate portfolio – this would send a message to the media, international investors and business leaders that the government is committed to developing AI capacity in the country. The Minister could then also oversee the use of AI within government, encourage private investment in digital infrastructure and help increase public awareness of AI (Dixon, 2024)[7].

The poorly executed visa policy in Kenya serves as a reminder of the **importance of thorough planning and user-friendly design when implementing digital solutions as part of a policy roll-out.** It also shows how flexibility and responsiveness in policy processes are important when needing to course correct. The Kenyan Cabinet displayed the willingness to respond to data which showed that the policy was not working (Monyani, 2025). Government officials involved in policy formulation and decision-making will **need to exercise flexibility and responsiveness** particularly when digital tools are used to implement policy.

7 Currently, South Africa combines Communications and Digital Technology into one portfolio.

2.6.2. Recommendations related to AI and Digital Tools for Policy Actors in South Africa

The findings show that **no digital tools developed specifically for enhancing Kenya's central government PAS were identified.** The following recommendations on AI and digital tools are proposed.

Along with the emphasis on digital inclusion, South Africa should **focus on building AI capacity within government and the civil service.** This can involve investing in training programs, establishing centres of excellence similar to the KSG's Regional Centre of Competence in Digital and AI Skilling for the Public Sector in Kenya, and attracting and retaining talent with AI and data science expertise. There is a need to build the capacity of policymakers to understand both the capabilities of AI and the risks, as well as how to co-ordinate a broad range of actors working in the policy space and needing to acquaint themselves with AI-powered techniques[8].

Following Kenya's efforts with the Open Government Partnership (OGP) and its aim to make government data more accessible, South Africa should **prioritise open data initiatives** to facilitate evidence-based policymaking. Ensuring data is available in machine-readable formats with appropriate licensing is key. However, the challenges faced by Kenya's offline KODI should serve as a warning, highlighting the **need for sustained commitment and resources for such initiatives.**

South Africa should explore specific AI applications that have shown promise in Kenya, such **as AI-driven chatbots for citizen engagement, predictive analytics for policy outcome forecasting, AI in agriculture for food security policies, and AI in healthcare for disease surveillance and telemedicine.** South Africa is already using AI to advance the screening and diagnosis of Tuberculosis (Nextrade Group, 2024).

Recognising the challenge of low trust in government highlighted in the Kenyan context, South Africa needs to prioritise building citizen trust and confidence in government institutions and processes. Levels of political trust are low in South Africa – 44% of South Africans distrust the President and 46% distrust Parliament (Afrobarometer, 2022). **Implementing digital services may increase trust in government** by improving transparency, performance, efficiency and removing opportunities for bribery.

South Africa should closely monitor and learn from both the successes and challenges encountered by Kenya in its journey of integrating AI and digital tools into its policy advisory system. By considering these recommendations, South African policy actors can strategically leverage the opportunities presented by AI and digital tools to enhance the effectiveness, efficiency, and inclusivity of their policy advisory system, while also being mindful of the potential pitfalls and challenges highlighted in the Kenyan experience.

8 The government has introduced regulatory measures to prevent the misuse of AI technologies, particularly in relation to disinformation that could threaten democratic processes (Citizen Digital, 2025).

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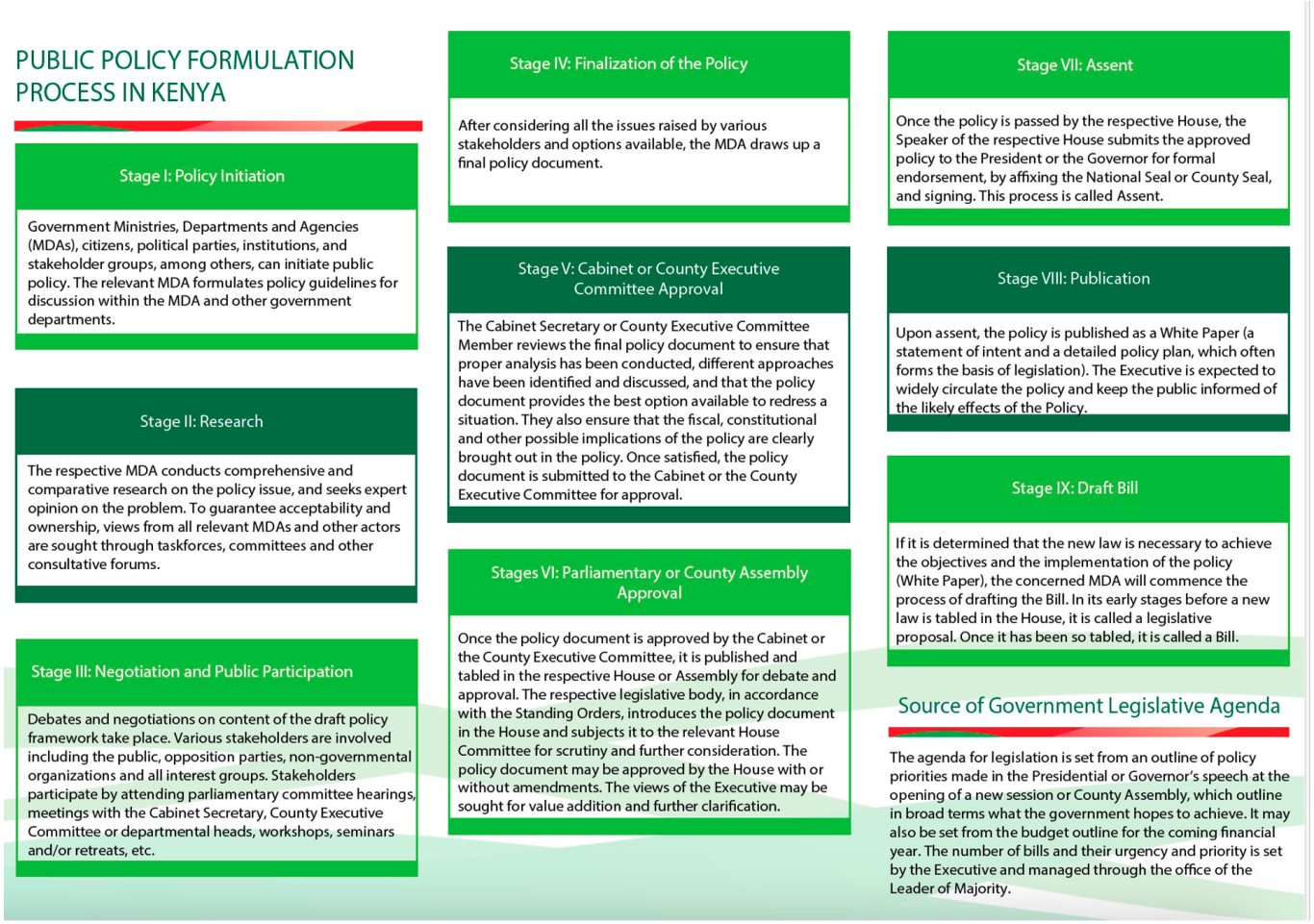
**n.d. indicates no date available.*

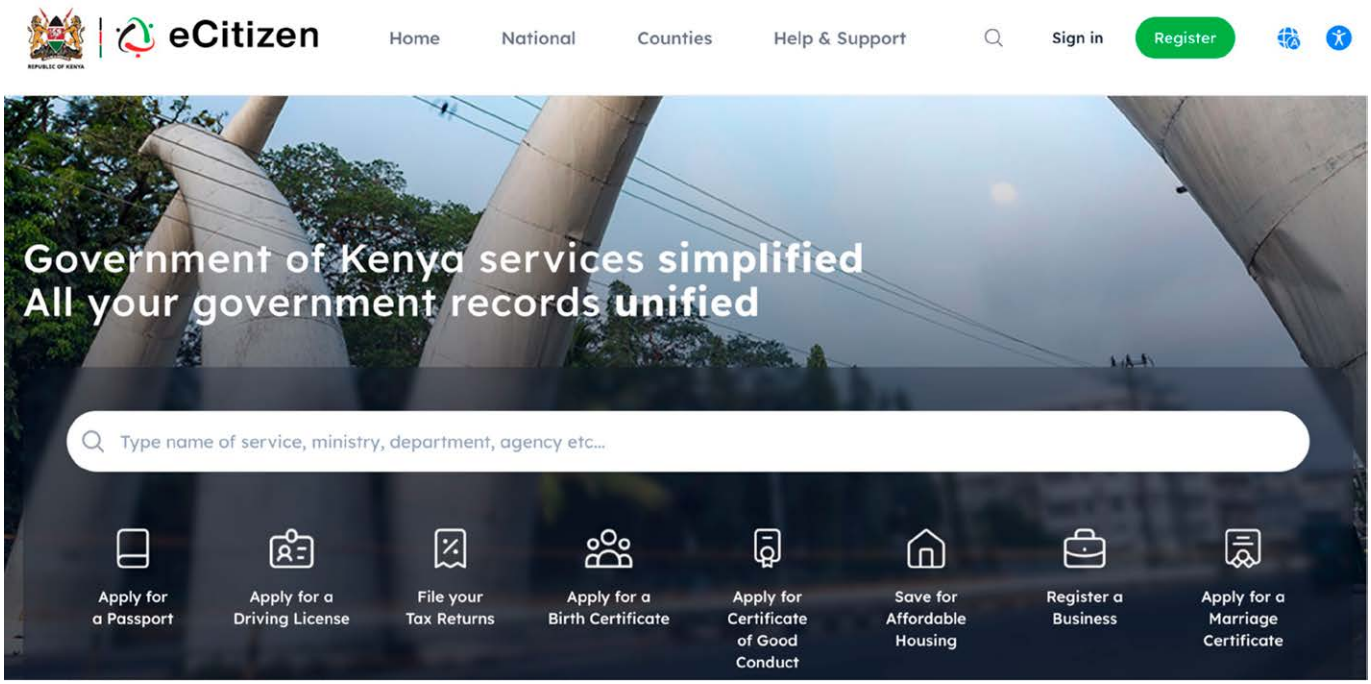
Appendices

Appendix A



Source: *KIPPRA, 2019*

Appendix B



Source: *ecitizen, 2025*

https://accounts.ecitizen.go.ke/en

Learning from Kenya's advancements in digital infrastructure, South Africa should c**ontinue to invest in expanding internet access and connectivity**. Efforts are needed to address digital exclusion in rural and marginalised communities to ensure that the benefits of AI and digital tools are inclusive and do not exacerbate existing inequalities. Currently 78.9% of South Africans have access to the internet which is a far higher degree of internet penetration than Kenya (DataReportal, 2025).

INDIA

3.1. Introduction

PAS play an increasingly important role in establishing inclusive, adaptive, and inclusive public policy as countries negotiate ever-more complicated governing environments. India's evolving PAS offers valuable insights, particularly in its integration of digital technologies and stakeholder engagement.

This study on PAS in India constitutes the following objectives:

- To identify the key entities, actors, and processes internal to the central government of India. This objective focuses on understanding and analysing how the PAS works in India and the key lessons and constructive good practices of policy advice in India.
- To explore how India uses AI and digital tools to contribute to improving PAS. The objective seeks to understand how AI and digital tools are being utilised to enhance policy advice.
- Make recommendations to PAS that apply to the South African context and improve South Africa's policy advisory framework.

The paper first describes the political and policy background of policymaking in India before delving into each goal in the several parts that follow.

3.1.1. Political and Policy Context

According to the World Bank (2025), India is one of the fastest-growing economies in the world, with a population of around 1.46 billion. Over the past few decades, it has transitioned from a primarily agrarian economy to a more diversified one, with significant contributions from manufacturing and services. The country has made remarkable progress in reducing extreme poverty, with estimates suggesting that between 2011 and 2019, the share of the population living below the extreme poverty line was halved. However, inequality remains a challenge, with a Gini index of around 35 over the past two decades. Despite its economic growth, India faces several socio-economic challenges ranging from headline employment, poverty and inequality, education and literacy, to infrastructure deficiencies, and corruption.

India follows a federal parliamentary democratic system, meaning governance is divided between the central government and state governments, with elected representatives making decisions. The President of India is the ceremonial head of state, while the Prime Minister leads the government and exercises executive power. India operates under a three-tier system of governance:

1. **Central Government** - Responsible for national policies, defence, foreign affairs, and economic planning.
2. **State Governments** - Handle regional matters like law enforcement, healthcare, and education.
3. **Local Governments (Panchayati Raj & Municipalities)** - Manage grassroots governance in villages and cities, ensuring local development.

This system was strengthened by the 73rd and 74th Constitutional Amendments, which empowered local bodies to make decisions on community development. India's policymaking follows a structured approach:

1. **Agenda Setting** – Issues are identified through public demands, political priorities, of crises. Policy formulation – Experts, ministries, and think tanks draft proposals based on research and stakeholder consultations.
2. **Legislation & Approval** – Policies are debated in Parliament (Lok Sabha & Rajya Sabha) and passed as laws.
3. **Implementation** – Bureaucracy and government agencies execute policies at the national and state levels.
4. **Evaluation & Feedback** – Policies are assessed for effectiveness, and adjustments are made if needed.

India's governance system ensures checks and balances through an independent judiciary, which interprets laws and safeguards constitutional rights. The National Institution for Transforming India (NITI Aayog) plays a key role in policy planning and economic strategy.

3.2. Methodology

We conducted a comprehensive desktop research review of secondary data. This involved analysing existing literature, reports, and case studies on digital development and PAS in India. The secondary data sources included academic journals, government publications, policy briefs, and reputable online databases. This approach allowed for a broad understanding of the current state of PAS in India and the identification of best practices and successful implementations.

3.3. Policy Advisory Systems

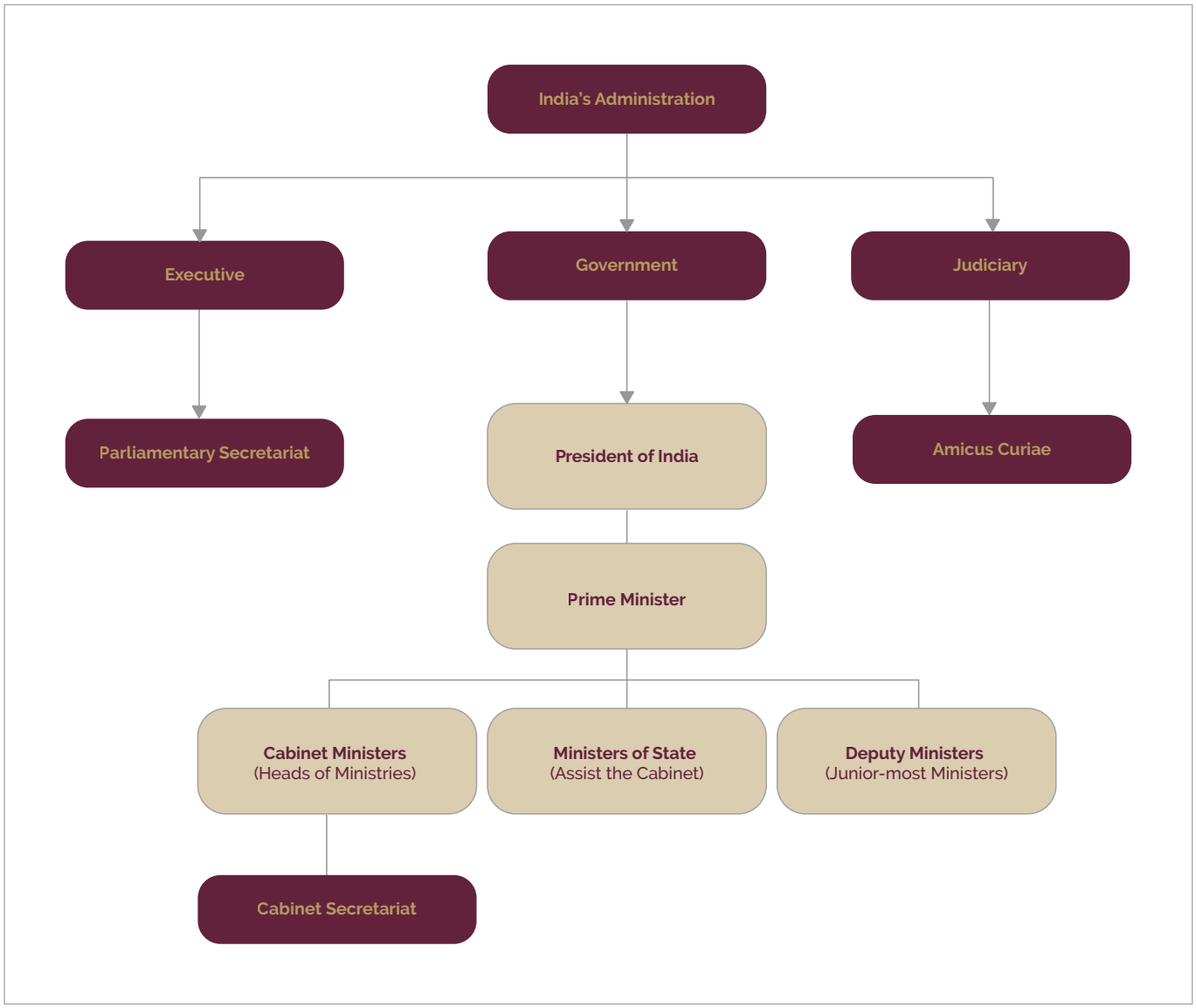
3.3.1. Introduction: Policy Advisory Systems in India

PAS can be defined as the production of knowledge relevant to a policy problem and offering recommendations for possible solutions. It involves activities such as research, data analysis, proposal development, consultation with stakeholders, and guiding policy through governmental processes. The focus of policy advising in government is on analysing public issues and formulating solutions. With the rise of new advice sources, including consultancies, think tanks, and political aides, the role of public service has changed, particularly in the Westminster tradition, where PAS has undergone major change. Different players with varying interests and resources interact inside political and economic institutions in a good PAS. For public policy to be effectively made, it is essential to comprehend these players and how they interact. In India, PAS dynamics have led to a rethink of the received knowledge about the insider-outsider and technical-political divides in policy advice, leading to more nuanced descriptions of PAS configurations.

3.3.2. Ecosystem for the Functioning of Policy Advisory Systems

The PAS is serving the three limbs of the Indian Administration at different levels, dictated by needs and provisions incorporated in their manuals. The chart below shows the structure of the Indian Administration and the various nodes of the central government:

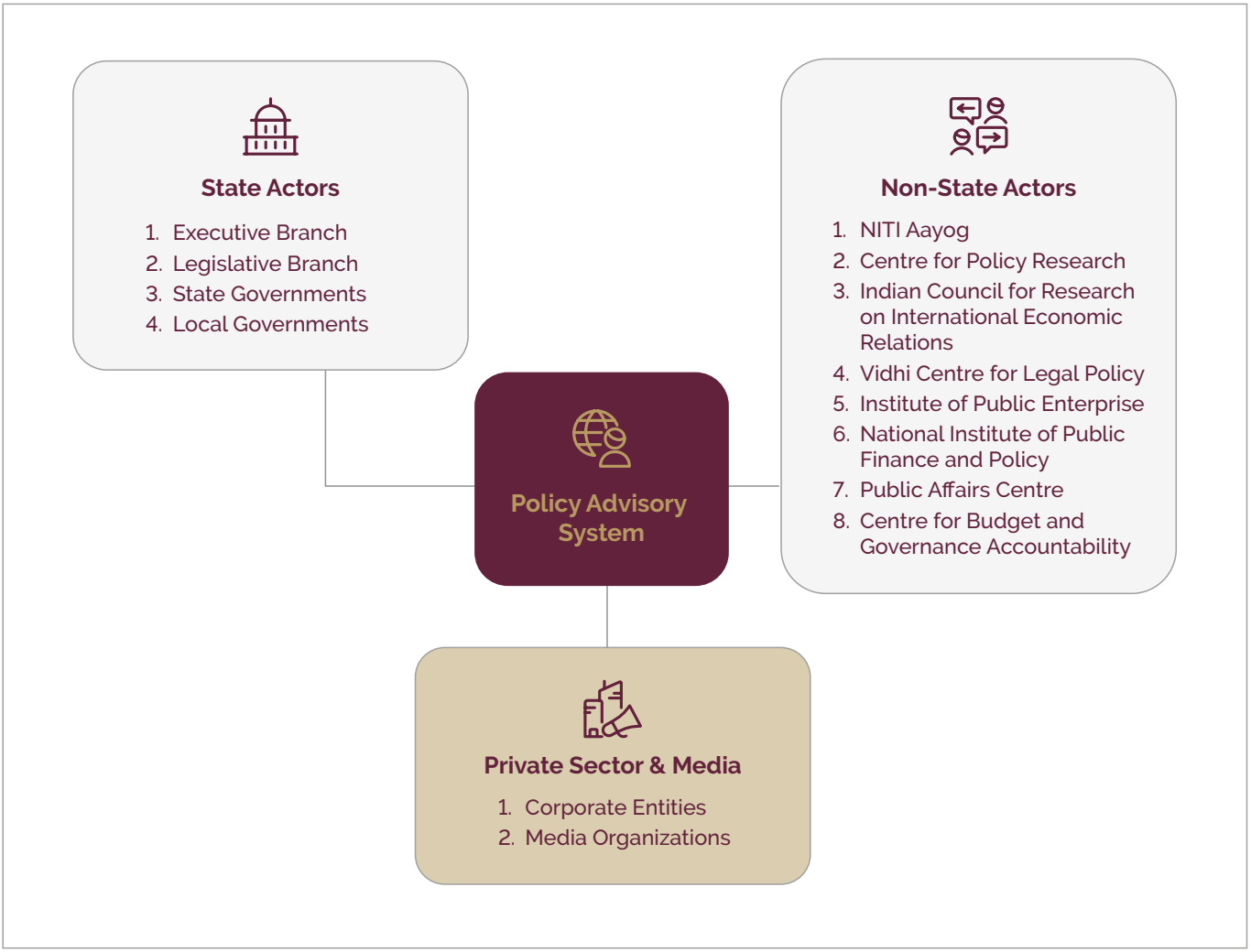
India Figure 1: Structure of the Indian Administration



Source: *Authors (2025)*

In India, PAS actors play a crucial role in governance, policy-making, and implementation. These actors can be categorised into state actors (government bodies) and non-state actors (private entities, think tanks, and civil society organisations). Key PAS actors and their relationship with the government are explained in the following figure:

India Figure 2: PAS Actors and Government in India



Source: *Authors (2025)*

3.3.2.1. State Actors (Government Institutions):

These official government bodies responsible for policy formulation, execution, and governance are:

1. **Executive Branch:** Includes the President, Prime Minister, Cabinet Ministers, and Ministers of State, who oversee governance and policy implementation.
2. **Legislative Branch:** Parliament (Lok Sabha & Rajya Sabha) debates and passes laws, assisted by Parliamentary Committees (Public Accounts, Estimates, Ethics, etc.).
3. **Judiciary:** The Supreme Court, High Courts, and District Courts ensure legal compliance and constitutional integrity.
4. **State Governments:** Each state has a Chief Minister, State Cabinet, and Legislative Assembly, handling regional governance.
5. **Local Governments:** Municipalities and Panchayati Raj institutions manage grassroots governance.

3.3.2.2. Non-State Actors (Policy Advisors & Think Tanks):

These entities provide research, policy recommendations, and advocacy.

1. **NITI Aayog:** The government's primary policy think tank, advising on economic and social strategies.
2. **Centre for Policy Research (CPR):** Conducts independent research on governance and policy.
3. **Indian Council for Research on International Economic Relations (ICRIER):** Focuses on economic policy.
4. **Vidhi Centre for Legal Policy:** Provides legal research to improve governance.
5. **Institute of Public Enterprise (IPE):** Specialises in public enterprise management.
6. **National Institute of Public Finance and Policy (NIPFP):** Advises on fiscal policies.
7. **Public Affairs Centre (PAC):** Works on governance and service delivery improvements.
8. **Centre for Budget and Governance Accountability (CBGA):** Advocates for transparent governance.

3.3.2.3. Private Sector & Media:

1. **Corporate Entities:** Engage in Public-Private Partnerships (PPPs) for infrastructure and economic development.
2. **Media organisations:** Influence governance by shaping public opinion and holding officials accountable.

3.3.3. PAS actors interact with the government as explained below:

- **Policy Formulation:** Think tanks and advisory bodies provide research-based recommendations.
- **Legislation & Implementation:** Government institutions draft, debate, and enforce policies.
- **Public Engagement:** Civil society organisations advocate for policy changes and monitor governance.
- **Judicial Oversight:** Courts ensure policies align with constitutional principles.

NITI Aayog is the policy advisory body of the Government of India, established in 2015 to replace the Planning Commission (Next IAS, 2024, p. 2). It provides strategic, economic, and technical advice to the central and state governments, ensuring effective policy formulation.

3.3.4. Major Initiatives of NITI Aayog

- The **Atal Innovation Mission (AIM)** promotes innovation and entrepreneurship across India by establishing tinkering labs and supporting startup incubation programmes.
- The **SDG India Index** serves as a national tracker, monitoring progress toward the Sustainable Development Goals at both the central and state levels.
- The **Development Monitoring and Evaluation Office (DMEO)** is responsible for assessing the performance and impact of government schemes to ensure evidence-based policymaking.
- The **Aspirational Districts Programme** aims to transform underperforming districts through targeted data-driven interventions and community-based governance.
- The **Digital Public Infrastructure initiative** advocates for scalable technology platforms, such as India Stack, to enable inclusive and accessible digital transformation.

Structure

- Chairperson: The Prime Minister of India.
- Vice Chairperson: Appointed by the Prime Minister.
- Governing Council: Includes Chief Ministers and Lieutenant Governors.
- Experts & Committees: Advice on specialised policy matters.

Key Roles

- Aspirational Districts Programme: Focuses on underdeveloped regions.
- Atal Innovation Mission: Supports startups and technology.
- National Data & Analytics Platform: Provides open access to government data.
- Health & Education Reforms: Strengthens healthcare and digital education.

NITI Aayog plays a vital role in India's governance, ensuring data-driven policy-making and national development. India's governance system thrives on collaboration between state and non-state actors, ensuring effective policy-making and implementation.

The PAS in India functions in two ways, offering advice either upon request or on its own initiative through routine submission of reports or preparing reports on issues of significance (NITI Aayog, 2022). Policy advice is frequently sought, among other things, in sectors such as energy, financial inclusion, trade, defence, agriculture, industry, education, technology, and external affairs (Reserve Bank of India, 2019; KPMG India, 2023). The policy-making process is multifaceted and involves numerous stages and stakeholders. The process is designed to be inclusive and deliberative, ensuring that a wide range of socio-economic and political factors are considered. The Cabinet, led by the Prime Minister, plays a central role in formulating and approving major policies and decisions. Various committees, such as the Economic Affairs Committee and the Parliamentary Affairs Committee, provide detailed analyses and recommendations to ensure well-informed decisions. Each Ministry has advisors, whereas in some ministries, this practice culminates in the appointment of a chief, such as a chief economic adviser or a chief scientific adviser. The Secretaries to the Government of India are expected to tender advice on the subjects allotted to the concerned ministries. The dependence on consultants can also be seen primarily in the four biggies, and these are Deloitte, PricewaterhouseCoopers (PwC), Ernst & Young (EY), and KPMG. These companies are important in forming government policy, providing strategic advice, conducting evaluations, and supporting implementation in areas such as finance, infrastructure, technology, and governance. Additionally, non-political groups, private players, and civil society organisations actively participate in the policy formulation process, making it a collaborative effort. These can access PAS for the requisite inputs (PwC India, 2025).

3.3.5. Limitations of PAS

India's policy advice system is relatively inclusive, involving various stakeholders, including government bodies, academic institutions, and civil society organisations. However, it faces challenges such as bureaucratic inertia, political interference, limited capacity for data-driven decision-making, and budgetary constraints (Mittal & Pani, 2022, pp. 105–106). Although the policy advisory system works with the community and is also supported by people, it has its problems, among other things, related to culture, language, and political affiliation.

3.3.6. Summary

In India, PAS involves a network of decision-makers, knowledge producers, and knowledge brokers who contribute to policy formulation. The key players include government officials, bureaucrats, think tanks, academic institutions, private sector consultants, and civil society organisations. The process begins with problem identification, followed by research and analysis, where experts provide insights and recommendations. Policymakers then engage in consultations and deliberations, considering political, economic, and social factors before drafting policies. The final stage involves policy implementation and evaluation, ensuring effectiveness and necessary adjustments. This system enables informed decision-making, balancing technical expertise with political considerations to shape India's governance framework.

3.4. Digital Tools Used to Improve Policymaking in India

3.4.1. Introduction

The objective of this section is to understand how AI and digital tools are being utilised in India to enhance policy advice. The AI is opening new doors for PAS to meet long-standing challenges like bureaucratic inertia, political interference, limited capacity for data-driven decision-making, and budgetary constraints. The AI-powered policy advisory system will open a new but significant chapter in the art and science of policy advisory systems. The Information Technology Act, 2000, its amended rules, 2023, and the Digital Personal Data Protection (DPDP) Act, 2023 provide measures for data security and privacy for developing and using big data. India relies significantly on open-source software platforms. Nevertheless, the country has begun efforts to create its artificial intelligence systems, focusing on enhancing security, reliability, accessibility, affordability, and the ability to tailor solutions to specific needs.

3.4.2. Interplay of AI and PAS

As AI is making inroads in the Indian public policy advisory systems, from a slow start in 2019, India has come a long way in using AI in its internal decision-making processes. The Ministry of Electronics and Information Technology (MeitY) is the primary driver of AI initiatives in India. It oversees the IndiaAI Mission, which aims to strengthen the country's AI ecosystem through innovation, ethical practices, and inclusivity. AI tools, supported by initiatives like the IndiaAI Mission, enhance policy-making by analysing large datasets, predicting outcomes, and ensuring effective governance (Press Information Bureau, 2024).

The India AI Mission plays a crucial role in enhancing policy advisory systems by providing data-driven insights, AI-powered analytics, and sector-specific AI applications. One of its key pillars, the IndiaAI Datasets Platform, streamlines access to high-quality, non-personal datasets, enabling policymakers to make informed decisions. Additionally, the IndiaAI Compute Capacity initiative supports advanced AI research by deploying 10,000+ GPUs and facilitating large-scale policy simulations and impact assessments. The mission also promotes Responsible AI, ensuring transparency, fairness, and accountability in AI-driven policy recommendations. By integrating AI into governance, the India AI Mission strengthens evidence-based policymaking, particularly in sectors like healthcare, agriculture, and education.

3.4.3. Digital and AI tools used to Improve Policymaking in India

This section seeks to highlight some of the digital tools and AI for the PAS used in India. We are looking for answers to the following questions:

- What AI tools are used for policy advice, and what do they do?
- Which policy advisory bodies manage and use such tools?
- Who do they send their data, analysis, or model results to?
- What parts of policymaking do such tools advise? (Agenda setting, formulation, adoption, implementation, or monitoring and evaluation)
- Which policies have benefited from such tools, or which parts of policymaking have been made efficient?

India is utilising digital tools and AI to improve its policy advisory systems. Technologies such as GIS and cloud computing provide critical insights for urban planning, resource allocation, and disaster management. AI applications are diverse, addressing challenges in sectors like healthcare (disease prediction), agriculture (crop management), education (customised learning), and finance (fraud detection) (EY, 2025). Ethical concerns, such as data privacy and algorithm bias, remain important areas for improvement. The National Committee on Responsible and Trustworthy AI emphasises fairness, transparency, and inclusivity in AI adoption (Press Information Bureau, 2025).

PAS in India relies on a mix of government agencies, think tanks, academic institutions, and private sector consultants to provide evidence-based recommendations. While DPIs such as Aadhaar, UPI, DigiLocker, and NDAP play a crucial role in governance, their direct use in policy formulation is less clear. Policymakers typically receive data-driven insights from research institutions, analytics firms, and government data platforms, rather than conducting analysis themselves. AI-powered tools, such as predictive analytics and machine learning models, are increasingly used to assess policy impact, optimise welfare schemes, and improve service delivery. However, platforms like DigiLocker primarily serve as service delivery mechanisms, rather than policy advisory tools. The integration of AI and DPI into policy advisory remains an evolving space, with efforts to enhance data-driven decision-making through initiatives like GovAI.

3.4.4. The Need for Developing Digital Public Infrastructure (DPI) for Policy Advisory Systems

DPI helps policymakers address challenges in resource allocation, disaster management, and social welfare distribution. DPI platforms like Aadhaar and UPI enable efficient identification and distribution of resources to targeted beneficiaries, ensuring transparency and reducing leakages. Predictive analytics and real-time data from DPI systems help policymakers anticipate disasters, allocate relief measures, and coordinate responses effectively (Sahu, Upadhayay, Singh, & Sharma, 2024). Platforms such as DigiLocker and CoWIN streamline the delivery of welfare schemes, ensuring accessibility and inclusivity. DigiLocker itself is primarily a document storage and verification tool, not a policy advisory system. However, platforms that aggregate and analyse DigiLocker data could be used for policymaking. For example, the National Data Analytics Platform (NDAP) enables policymakers to access and analyse structured datasets, including those related to citizen documentation, financial inclusion, and service delivery (Kamath, 2021). DigiLocker contributes to e-governance by streamlining access to verified documents, which can indirectly support policy decisions. The data are presented to policymakers through interactive dashboards, analytical reports, geospatial mapping, predictive analytics models, real-time alerts and notifications, and stakeholder consultations.

3.4.5. Unbundling Digital Tools

Unbundling digital tools involves breaking down complex systems into modular components to enhance adaptability and efficiency. In India, this approach enables policymakers to develop flexible and tailored solutions for addressing public needs. For instance, initiatives like Aadhaar and UPI illustrate the potential of modular infrastructure in improving governance and service delivery (Economic Times, 2024). Similarly, frameworks like the Beckn Protocol support decentralised digital services in areas like healthcare, education, and mobility (Routledge, 2023). Despite its benefits, challenges such as interoperability issues, data privacy, and the digital divide remain significant concerns. To overcome these, India must prioritise capacity building, ensure robust governance, and foster public-private partnerships (Aapti Institute, 2025).

3.4.5.1. Open-Source Software

Open-source software (OSS) is a key driver of innovation in policy advisory systems, allowing for reduced dependency on proprietary technologies while fostering collaboration and transparency. In India, OSS initiatives like OpenForge demonstrate their transformative potential. OpenForge, a government-supported platform, enables developers to co-create, share, and reuse code for e-governance applications, enhancing scalability and cost-effectiveness (Drishti IAS, 2022). OSS plays a significant role in Policy Advisory Systems (PAS) in India, particularly in data analysis, governance transparency, and collaborative policymaking. The Government of India has actively promoted OSS adoption through policies like the Policy on Adoption of OSS and frameworks for OSS integration in e-governance systems .

3.4.5.2. Open Data

Open data initiatives in India play a transformative role in promoting transparency, accountability, and evidence-based policymaking. The NDAP, launched by NITI Aayog, is a landmark initiative aimed at democratising access to public datasets. NDAP consolidates data from central and state governments, presenting it in a user-friendly and machine-readable format. This platform enables policymakers, researchers, and civil society to analyse trends, identify gaps, and make informed decisions (KPMG, 2023).

There are systems in place that help policymakers analyse trends, identify gaps, and make informed decisions, but the extent to which they conduct analysis themselves varies. Platforms like the NDAP provide structured datasets that policymakers can use for decision-making. Additionally, KPMG's insights platform offers industry trends and actionable intelligence. In practice, policymakers often rely on research institutions, think tanks, and consulting firms to conduct detailed analyses and provide reports. While some government agencies have in-house analytics teams, many decisions are informed by external reports and expert recommendations rather than direct data analysis by policymakers themselves.

One notable application of open data is in the Pradhan Mantri Fasal Bima Yojana (PMFBY), a crop insurance scheme. PAS utilises publicly available satellite data to assess crop health and estimate losses to ensure timely and accurate insurance claims for farmers (Drishti IAS, 2023).

3.4.5.3. Open Artificial Intelligence

Open AI frameworks play a pivotal role in fostering inclusivity and accessibility for diverse Stakeholders. India's IndiaAI Mission emphasises the development of indigenous AI solutions tailored to the nation's unique social and linguistic diversity. A key initiative under this mission is Bhashini, an open AI platform designed to integrate multiple Indian languages (IndiaAI, 2025). This platform aims to bridge linguistic divides and make digital tools more accessible to individuals from varied linguistic backgrounds. This enables the PAS to understand challenges at the grassroots level and offer practical, real-world insights.

Local language models have been instrumental in helping policymakers understand grassroots challenges in India, particularly in education, governance, and healthcare. One notable example is the M-TALL Akhra initiative in Jharkhand, which developed mother-tongue-based multilingual education programs to address learning gaps among tribal children (Pattanayak, 2022). This initiative used local language models to design pedagogical strategies and teaching materials, ensuring that policymakers could make informed decisions about language-inclusive education policies.

Small Language Models (SLMs) have been deployed to bridge the digital divide in rural India, enabling local governance and policy formulation. These models help policymakers analyse regional disparities, linguistic diversity, and mobile-first user behaviour, ensuring that policies are tailored to local needs.

3.4.5.4. Open Content Adhering to Privacy

Open content initiatives, such as those governed by Creative Commons licensing, strike a balance between accessibility and privacy compliance. They enable the ethical sharing and reuse of publicly available content while respecting data protection laws. An exemplary initiative is DigiLocker, a digital document storage platform that provides secure and convenient access to personal documents. By adhering to the DPDPA's privacy norms, DigiLocker ensures that user data is handled responsibly, fostering digital inclusivity while prioritising privacy.

3.4.6. International and Domestic Laws

India has established a robust legal framework to regulate digital tools and AI in policy advisory systems. Domestically, the Information Technology Act of 2000 serves as a cornerstone for electronic governance, with provisions like Section 43A addressing data privacy breaches. The Digital Personal Data Protection Act (DPDPA) further emphasises informed consent and accountability in data handling, ensuring ethical AI deployment.

3.4.7. Security and Privacy

To address security concerns in e-mail deployment, the Government of India (GoI) mandates the exclusive use of its centralised e-mail service, overseen by the Implementing Agency (IA). This ensures uniform policy implementation, secure data management, and seamless migration (Ministry of Electronics & IT, 2025). Centralising emails helps make policy implementation uniform by ensuring consistent communication, streamlined decision-making, and improved accountability. When all policy-related emails are managed through a centralised system, policymakers and administrators can standardise messaging, improve coordination, enhance compliance tracking, reduce redundancy, and strengthen security.

3.4.8. Challenges

Digital tools and AI used in PAS face a variety of hurdles that demand careful attention. A key issue is unintentional bias, where AI systems may embed societal prejudices, causing inequitable policy recommendations. Moreover, privacy and security concerns arise due to the vulnerability of sensitive data utilised in policymaking, requiring robust protection. The challenge of accountability is notable, as opaque "black-box" models hinder tracking and understanding AI's decision-making processes (Karma Advisory, 2024). However, India faces challenges such as funding constraints, privacy concerns, and the digital divide (UNESCO, 2023).

3.4.9. AI as a Public Policy Advisory Tool

Artificial Intelligence (AI) has permeated various ministries and departments of the Government of India, including the Ministry of Corporate Affairs, the Ministry of Home Affairs, the Finance Ministry, the Department of Administrative Reforms and Public Grievances, and the Ministry of Electronics and Information Technology. These ministries require policy advice on both generic and specific issues from time to time to design, implement, monitor, and, if necessary, initiate mid-course corrections. All such programmes seek policy inputs and are supported by the requisite mechanisms. Below, we discuss how AI is used by a few ministries in operating their key programmes.

The Ministry of Corporate Affairs, set up for itself the task of promoting ease of doing business in India, ensuring real-time corporate compliance monitoring, reducing regulatory delays, enhancing transparency, and facilitating paperless corporate governance. In 2021, the Ministry of Corporate Affairs launched MCA21 V3.0, an upgraded portal facilitating the electronic filing of corporate documents and public access to corporate information. This platform leverages AI to organise and analyse stakeholder inputs, producing analytical reports that expedite policy decisions. The integration of AI has streamlined regulatory processes, enhancing transparency and efficiency in corporate governance. MCA21 V3.0 is the latest version of the Ministry of Corporate Affairs (MCA) online compliance and regulatory filing portal in India. It is a data-driven AI-enabled platform designed to enhance compliance, streamline corporate filings, and improve governance (Ministry of Corporate Affairs, 2021).

The other platforms such as are:

3. **IndiaAI Datasets Platform** - This initiative provides structured, high-quality datasets to policymakers, enabling data-driven decision-making in sectors like healthcare, agriculture, and education.
4. **National Data Analytics Platform (NDAP)** - Developed by NITI Aayog, NDAP aggregates and visualises government datasets, helping policymakers identify trends, gaps, and policy impacts.
5. **AI for Social Good Initiatives** - Various AI-driven projects focus on predictive analytics for disaster management, healthcare optimisation, and financial inclusion, ensuring evidence-based policymaking. These platforms, like MCA21 V3.0, leverage AI to streamline governance, enhance transparency, and improve policy formulation.

The Finance Ministry in India has been leveraging AI to enhance efficiency and transparency in income tax administration. The key AI applications relate to the detection of tax evasion, faceless assessments, integration with other databases, predictive analytics, and social media analysis.

The Department of Administrative Reforms and Public Grievances (DARPG) has used digital tools in AI in its internal processes related to grievance redressal. The effective redressal of public grievances is one of the most important aspects of Indian democracy. The Centralised Public Grievance Redress and Monitoring System (CPGRAMS) is an online platform available to citizens 24/7 to lodge their grievances with the public authorities on any subject related to service delivery. It is a single portal connected to all the Ministries/ Departments of the Government of India and the States. Every Ministry and State has role-based access to this system. CPGRAMS is also accessible to citizens through a standalone mobile application downloadable through the Google Play Store and a mobile application integrated with the Unified Mobile Application for New-age Governance (UMANG). Citizens can access the system online through the portal. The efficacy of the CPGRAMS portal has been an important thrust area of the nation's Grievance Redressal Systems.

The Ministry of Electronics and Information Technology (MeitY) launched the National AI Portal, INDIAai, serving as a central hub for AI-related news, research reports, and case studies. This initiative fosters collaboration among stakeholders, promotes AI adoption, and supports innovation across sectors. The portal has become a valuable resource for policymakers, industry professionals, and researchers.

Policy Advisory Systems (PAS) are crucial for good governance, providing policymakers with quality advice by analysing public problems and developing informed recommendations. PAS helps in enhancing policy capacity. PAS plays an important role during poly-policy crises. India has developed a strong PAS, incorporated advanced tools and techniques, and is backed by the necessary digital infrastructure to offer critical inputs for governance decisions. India's use of Geographic Information Systems (GIS), cloud computing, and AI tools, supported by initiatives like the IndiaAI Mission, has significantly improved policy-making across various sectors. A great example is that GIS is used in disaster management and environmental conservation. Cloud computing is used in data storage, software deployment, and remote collaboration. The government has set up data centres and has adopted the cloud to support India's digital economy. Apart from that, the Indian government has launched initiatives like BHASHINI, which uses AI for multilingual digital services, and AIKosha, a platform supporting AI innovation. The IndiaAI Mission aims to build a comprehensive ecosystem that fosters AI innovation by democratising computing access, enhancing data quality, developing indigenous AI capabilities, attracting top AI talent, enabling industry collaboration, providing startup risk capital, ensuring socially impactful AI projects, and promoting ethical AI. This mission drives India's AI ecosystem's responsible and inclusive growth through the following seven pillars.

3.5. Recommendations for South Africa's Policy Advisory System

Drawing from India's experience, South Africa can adopt a multi-pronged approach to build a more inclusive, efficient, and data-driven policy ecosystem. India's success lies in its strategic integration of AI across governance structures, supported by robust digital public infrastructure, open data ecosystems, and inclusive innovation frameworks. These lessons offer a roadmap for South Africa to modernise its policy advisory mechanisms. This can be achieved through: These recommendations focus on how South Africa can leverage AI specifically to enhance the design, implementation, and responsiveness of policy advisory systems, drawing directly from India's experience.

3.5.1. Recommendations Policy Advisory Systems:

1. Foster Innovation and Academia-Industry Collaboration

Policy advisory systems thrive when they are informed by cutting-edge research and grounded in local realities. India's M-TALL Akhra initiative, which brought together universities and the government to develop AI-based multilingual education tools, exemplifies how innovation ecosystems can support inclusive policymaking. South Africa should foster similar collaborations to generate context-specific AI tools that inform policy decisions in sectors like education, agriculture, and health.

2. Develop Inclusive AI Policies and Local Language Models

Inclusivity is essential for effective policy advice. India's Bhashini platform, which supports AI in multiple Indian languages, ensures that policy tools are accessible to diverse linguistic communities. South Africa, with its 11 official languages, can benefit from developing local language AI models that allow policymakers to gather insights from all regions and communities, ensuring that no group is excluded from the policy process.

3. Strengthen Regulatory Tools and Governance

A robust legal framework is foundational for ethical and effective AI use in policymaking. India's Information Technology Act and DPDPA provide clear guidelines for data protection and AI deployment. South Africa should similarly update its digital governance laws to ensure that AI tools used in PAS are transparent, accountable, and aligned with constitutional values. This will also build public trust in AI-driven policy decisions. Legislative and policy frameworks like the Protection of Personal Information Act (POPIA), the Cybercrimes Act 2020, and the National Policy on Data and Cloud (2024) can continue to be reviewed, aligned, and effectively applied across the board to ensure that AI systems used in policymaking are compliant with data privacy standards, transparency, and accountability are embedded in AI-driven decision-making, and that protecting the integrity of digital policy platforms.

4. Enhance Cybersecurity and Legal Safeguards

Policy advisory systems often handle sensitive data. India's centralised email systems and cybersecurity protocols, managed by the Ministry of Electronics and IT, ensure secure communication and data integrity. South Africa should invest in similar infrastructure to protect policy data from breaches, misinformation, and manipulation, especially as AI systems become more integrated into decision-making. As AI is developing faster and is integrated into important spaces like Policy Advisory Systems, pieces of legislation like POPIA and the Cybercrimes Act should continuously be reviewed to offer a comprehensive legal framework that supports the ethical, secure, and effective use of AI and digital tools in South Africa's policy advisory systems.

5. Build Research Capacity and Support Think Tanks

India's collaboration between NITI Aayog and institutions like the IITs has led to the development of AI tools that directly inform national policy. South Africa should invest in building the capacity of local think tanks, research institutes, and universities to conduct AI policy research. This will ensure that PAS is informed by rigorous evidence and grounded in local expertise. Think tanks like the Institute for Security Studies (ISS), Policy Innovation Lab: Stellenbosch University, and Development Policy Research Unit (DPRU)- University of Cape Town, to mention just a few, should be strengthened and meaningfully engaged to offer support in policy development, implementation, and evaluation.

6. Develop Specialised AI Solutions for Governance

AI can be tailored to address specific governance challenges. India's MCA21 V3.0 platform uses AI to monitor corporate compliance in real-time, reducing regulatory delays and improving transparency. South Africa can adopt similar tools in areas like tax administration, municipal governance, and environmental monitoring to enhance the precision and accountability of policy implementation.

7. Expand ICT Education and Training

For AI to be effectively integrated into PAS, public officials must be equipped with the necessary skills. India's IndiaAI Mission includes training programmes for civil servants. South Africa should follow suit by embedding AI literacy into public administration training and offering continuous professional development. This will ensure that policymakers can interpret AI-generated insights and apply them appropriately. Specialised courses from institutions of higher learning for policymakers can make a huge difference so that they are well abreast with the fast developments in AI and how this is reshaping policy-making and implementation processes.

8. Ensure Policy Continuity and Reduce Political Interference

India's long-term digital strategies, such as Digital India and IndiaAI, have remained consistent across political administrations, enabling sustained progress. South Africa should embed digital transformation and AI strategies within national development frameworks to ensure continuity, reduce politicisation, and maintain momentum in PAS reform.

3.5.2. Recommendations for Digital Tools that Improve Policymaking:

1. Invest in Infrastructure and Resource Allocation

Digital infrastructure is the backbone of modern policymaking. India's Unified Payments Interface (UPI) and Direct Benefit Transfer (DBT) systems have demonstrated how digital platforms can reduce costs, eliminate fraud, and improve service delivery. South Africa should invest in similar infrastructure to support AI-enabled platforms for welfare, healthcare, and education, especially in rural and underserved areas. This will enable real-time data collection and feedback, which are essential for adaptive policymaking.

2. Bridge the Digital Divide through Inclusive Infrastructure

India's BharatNet project aims to provide broadband connectivity to all villages, ensuring that rural communities are not excluded from digital governance. South Africa can adopt a similar approach to ensure that all citizens, regardless of geography, can access digital services, participate in policy consultations, and offer platforms for continuous feedback. This is critical for ensuring that PAS reflects the needs of the entire population.

3. Treat Digital Transformation as a Public Good

India treats platforms like DigiLocker and NDAP as digital public goods, offering secure and decentralised access to documents and data. South Africa should adopt this philosophy by ensuring that digital services in healthcare, education, and mobility are universally accessible. This approach supports equitable policymaking by ensuring that all citizens benefit from digital advancements.

4. Adopt Open Standards and Ensure Interoperability

India's use of open-source platforms like OpenForge has enabled scalable and cost-effective e-governance. South Africa can benefit from adopting open standards to ensure interoperability across government systems, reduce vendor lock-in, and future-proof its digital infrastructure. This will also facilitate data sharing and integration across departments, improving the coherence of policy advice.

5. Improve Coordination and Stakeholder Consultation

Effective policymaking requires input from a wide range of stakeholders. India's collaborative platforms like NDAP and OpenForge were developed through partnerships with academia, civil society, and the private sector. South Africa should establish inter-agency task forces and formal consultation mechanisms to ensure that PAS is informed by diverse perspectives and grounded in real-world needs.

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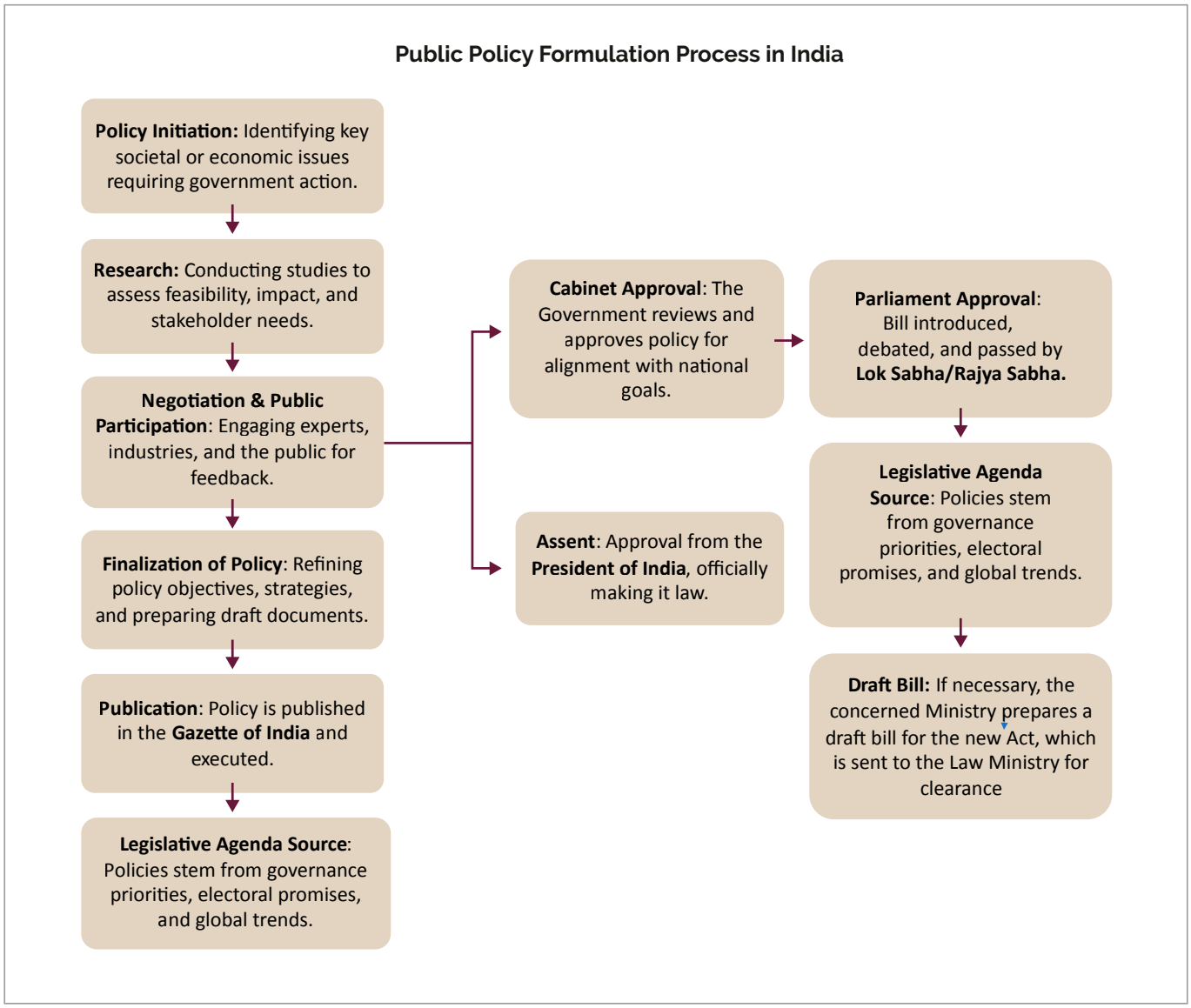
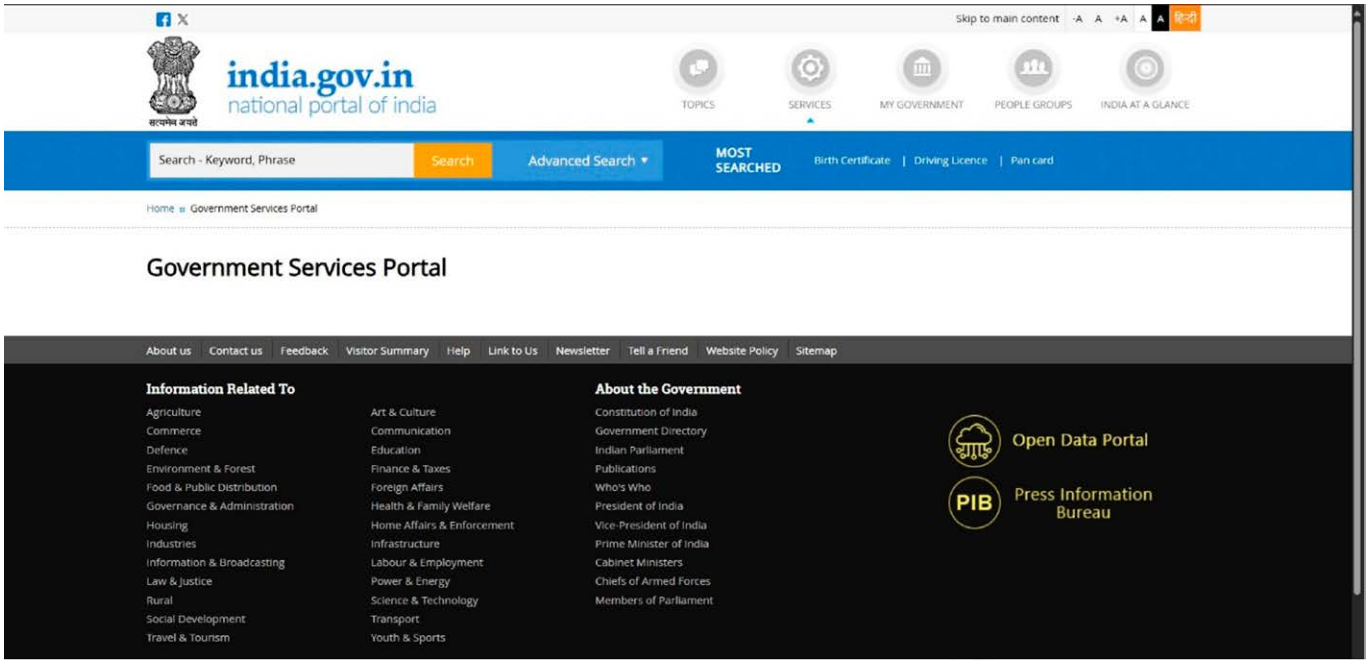
Appendix A



***Source**: Researchers own design*

Appendix B



Source: Government Services Portal | National Portal of India

SOUTH AFRICA

4.1. Introduction

Making policy is seen as both the purview of the executive and the parliament. Policy can thus be understood as comprising both legislation and executive decisions about how to address policy issues. The project focuses primarily on the national government level, particularly the executive. The main questions that directed the project were what structures provide policy advice to the executive; how has Artificial Intelligence (AI) been used in the South African government system for developing policy advice, and how can AI be useful in a policy advisory system?

This report presents the features of a policy advisory system in the South African government. The discussions first focus on structures inside and linked to the government, such as structures linked to the presidency, the cabinet, and government departments. The discussions highlight the role of these structures, which at the time of their creation included facilitating policy implementation. The central role of the Policy Research Services (PRS) in the policy advice system is highlighted in relation to the expectations of its role in terms of the National Policy Development Framework (NPDF).

Included in the report are inputs from research on the use of and the potential uses of AI in the South African government system. In the absence of finding research that documents the use of AI in the policy advice system, the discussion mainly focuses on the South African Revenue Service (SARS) as an example of a government structure that has incorporated AI into its operations. It then proceeds to discuss the potential utility of AI for various policy related activities in the South African government system. The inputs that are highlighted include cautionary considerations when thinking about AI use. The latter is an important background for the recommendation to incorporate AI into the policy advice system through a custom AI tool for developing policy advice.

The report is arranged as follows: the first section outlines the South African policy context. The second section is a discussion of the main concepts used to guide thinking. The third section presents methodological choices made for this investigation, an outline of data sources used, and an explanation of data analysis. The fourth section of the report discusses the structures of the policy advisory system in the South African government system. The fifth section focuses on how AI has been used in the South African government system as well as the potential utility of AI tools and other considerations as outlined by other researchers. The final section in this report presents the key focus of the report, the main findings, and recommendations for strengthening the policy advisory system with the role of PRS at the centre. PRS is viewed as a source of policy advice, a coordinator of government data relevant for policy analysis, a strategic engager with relevant units in government for data and policy advice, and an initiator of AI use for developing policy advice in the executive. Linked to AI use and data collection, another key role of PRS is to translate SEIAS into a tool that can be used as a data repository, which a custom AI tool can mine for challenges, and PRS can use the input to propose strategic interventions.

4.2. South Africa's Politics and Policy Context

Policy in democratising South Africa has largely stemmed from different sources. A key Source for policy foci that the government needs to address are the provisions in the 1996 Constitution. This includes creating legislation that seeks to prevent unfair discrimination, while promoting change through policies

that seek to 'undo' the effects of race-based preferential treatment in the working environment that was promoted during apartheid.

Correcting past injustices has been a key meta-policy focus since 1994. The enduring focus on addressing past injustices is notable in the example of land reform. Land reform policies in democratic South Africa were made during the early years of democracy and focused on redistribution, restitution, and security of tenure. The former are still the basis of land reform policy in South Africa. The National Development Plan (NDP) has highlighted that one of the South African government's key challenges is implementing policies (National Planning Commission, 2012:25). The recent enactment of the Expropriation Act (2024) demonstrates that further policy development is viewed as a tool to address implementation challenges. The act legitimises the use of expropriation to implement land reform policy and to attain other policy objectives.

The National Development Plan (NDP) is a key source for policy focus since its adoption in (2015). The NDP directs attention to the two of South Africa's enduring policy challenges, namely poverty and inequality (National Planning Commission, 2012: 24). As the dual focus of the NDP, these issues are highlighted as factors that affect the extent to which many South Africans can experience a dignified life. Beyond the former foci, the NDP (National Planning Commission, 2012) recommends an extensive range of actions to address key policy concerns in South Africa. The issue focus includes addressing education-related concerns and the intersection of this with an apartheid-era spatial landscape, as well as a lack of work (National Planning Commission, 2012: 24). There is also the recognition that gender inequality and lack of access for the youth to educational and economic opportunities, as well as other initiatives to support extending youth employment (National Planning Commission, 2012: 24, 26, 30). The NDP reflects that connections between issues are understood within the broader thinking frame that economic growth will be a key pathway to addressing poverty and inequality, and there are several linked recommendations (National Planning Commission, 2012: 39 - 40).

Gumede (2008) outlined the policy process in South Africa. Potential solutions to address policy issues are expressed in green papers for public comment (department developed); white papers followed and demonstrated the department's approach to addressing a policy issue. White papers could be considered for conversion into legislation. The executive would authorise a bill to be introduced into Parliament. The normal parliamentary processes would follow for translating a bill into legislation. Sometimes the process could stop with a white paper or policy framework that the cabinet adopted and thus it carries policy authority. It is within the process where various government structures play a role in which policy issues are recognised, what the problems are defined as, and what solutions are proposed. These structures are discussed in section 5.

South Africa's policy context has changed since the ANC now governs with several other political parties. While the policy process as outlined above remains relevant, recent challenges to major policy decisions indicate that the policymaking context in South Africa has changed. The recent challenge to finalising the budget suggests that policy development may in future increasingly become a product of negotiations between the partners in government. Cabinet may become an increasingly deliberative space where different sources of policy advice may be introduced. It is within this context that the use of AI tools for developing policy advice may be useful. It is also within this context that a tailored AI tool that processes a range of reliable, government-produced data for use in developing policy advice is recommended.

4.3. The meaning of a Policy Advisory System

The departure point here is to first define the concept of policy advisory system to highlight what the focus of the analysis would be. Craft and Halogen (2020 in Marciano and Craft, 2023: 490) refer to policy advisory systems 'as comprising a focus on how government and other actors engage for policy purposes.' Included in the focus are structures such as advisory units and the practices that are used in engagement. Drawing from this, the analysis will focus on whom policymakers engage with. The focus is on structures that exist within the government system and have a role to provide policy advice, as well as structures that are linked to government that could provide policy advice (potential resources for PRS to connect with). The analysis will include exploring what the literature indicates about practices, which is understood here as ways that engagement can occur and/ or does occur.

Marciano and Craft (2023: 498) primarily explore how policy advisory systems are managed in practice. But there are useful insights from their article as they refer to many ways that governments can act to manage policy advisory systems. These managing practices provide insight into the different ways that policy advice structures can be constituted. They refer to examples such as developing research and analysis capacity in parliamentary committees, using a public auditor to review public sector performance, expanding the use of dedicated reviews that ministers commission, creating new entities such as a parliamentary budget officer who analyses economic issues and government finances for Parliament (Marciano and Craft, 2023: 498). They also refer to non-public service (external) policy advisory instruments, which include, amongst others, advisory committees, task forces, royal commissions, and commissions of enquiry (Marciano and Craft, 2023: 498-499). The analysis includes exploring which structures are part of a policy advisory system in the South African government.

4.4. Methodology: Approach to Data Collection and Analysis

This work is based on a review of documents from two bodies of literature. One focuses on policymaking in South Africa, which provides insight into the structures that can provide advice in the South African government system. The other focused on the use of AI within the South African government system. The latter was broader in focus than AI and policy advice in the South African government system. This allowed for compensating for a lack of specific research on AI and policy advice in the South African government system.

The data sources included academic literature (mainly theses and journal articles), government documents, research reports from think tanks, and other research organisations. The approach to gather data sources was as follows: I used search strings to find sources using Google Scholar and Google as search engines. Key words employed for the search strings are policy advisory system, policy advice, policy recommendations, and South Africa, and ministers. I conducted a Google Scholar search using AI and South Africa and government as the search string with AI, South Africa, and government all respectively in quotation marks. The search parameters are adapted as new potential words were introduced from the research.

The documents were analysed in relation to the focal questions. The aim of the analysis was to find information on structures that are part or could be part of the South African policy advisory system, the roles of these structures, who the participants are in these structures, when they were created, and current roles that these structures fulfil. Furthermore, the focus of the analysis was to find information about whether government departments were using AI tools or whether AI tools were being promoted for governing and other potential themes. The documents that were examined specifically focused on the South African government system.

An important limitation to the insights that could be drawn from analysing documents only is that there are no insider inputs from which one could learn about how the policy advisory process works in practice and whether structures in the government-wide policy advisory system are using AI for policy advice. This would include which structures are sources of advice, for whom, and how does the advice 'travel' from one structure

to another or directly to a Director General and Minister. Insider inputs are usually sourced from interviews. These kinds of insights are missing because interviews were not a data source. Using interviews was outside the scope of this work, and its incorporation as a data collection tool would require ethics clearance and institutional permissions.

If research is commissioned in future on how the policy advisory system works in practice in the South African government system, it would be useful to consider allowing for interviews. Interviews can facilitate developing deeper insight into how the policy advisory system works in practice, and these insights could be an important source for recommendations on how to improve the policy advisory system. To compensate for this limitation, I have constructed a diagram of the policy advisory system to serve as a basis for thinking about improvements. The diagram is included in the next section.

4.5. Features of the Policy Advisory System in South Africa

Based on observations from the literature, structures for policy advice exist throughout the national government system. There are several structures in the President's office, in government departments, and some structures are commissioned by ministers. The latter structures can be external to the departments in that they are not permanent units for policy advice located in the department (e.g. commissions) and these structures can also be the product of partnerships between government and other entities (e.g. government and universities – research centres of excellence). The first section below is a description of the structures for policy advice which includes the roles anticipated for the various structures. The second section outlines what evidence-based policymaking means for sources of policy advice. The latter is a foundational focus prior to the exploration of potential AI use in government for policy advice. The range of sources of information is important for considering what relevant data may be needed to 'feed' an AI tool if it is to be used for developing policy advice. The third section presents a diagram illustrating the structures and the connections between structures as well as recommendations for improving the system.

4.5.1. Structures in the Policy Advisory System

Internal units are located within the Presidency and in government departments. The South African government nationally has a history of creating structures for policy advice. In her foreword to the National Policy Development Framework (NPDF) (South African Presidency, 2020: 3), the acting Director General (DG) in the Presidency records the development of structures for coordination and policy advice. The Policy Coordination and Advisory Service (PCAS) was created during the Mbeki presidency but no longer exists after 2010. The Department of Planning, Monitoring and Evaluation (DPME) and the National Planning Commission (NPC) were created during the Zuma presidency and these structures still exist. The Policy and Research Services Unit (PRS) in the Presidency was created during the Ramaphosa presidency. The DG notes that the National Development Plan (NDP) made coordination a priority and thus it created the need for a coordinating body in the Presidency, the Policy and Research Services Unit (South African Presidency, 2020: 3). Thus, South Africa's National Development Plan is shaping the policy vision for South Africa and influencing the creation of government structures for policy purposes.

The National Planning Commission and the Department of Planning, Monitoring and Evaluation

The National Planning Commission (NPC) and the Department of Planning, Monitoring and Evaluation (DPME) comprise part of South Africa's policy advisory system. The NPC produces reports that explicitly emphasise the advisory nature of what they produce (NPC, n.d). It is not clear whether these reports are used to inform policy advice for policy development and/ or improving policy implementation, and whether the advisory reports are developed on request to inform decision-making. These documents are important sources of policy advice and data, and it would be important to establish how and where these reports are stored.

The DPME's mission is noted on their webpage as 'To develop and coordinate evidence-based planning, monitoring, and evaluation of developmental outcomes and impact.' The DPME is in the presidency.

It is an important potential source for policy advice. It can potentially source extensive data from the broader government system (all national and provincial government departments). Its access to municipal government-level data is uncertain. The data that the department collects could be used by an AI tool to track progress and challenges to implementation. Access to relevant data is important when considering incorporating AI tools for developing policy advice.

Policy and Research Services role expectations

The Policy and Research Services Unit resides in the Presidency. This unit has various roles, which include monitoring the implementation of the NPDF as well as being 'responsible for coherent and evidence-based policy formulation and policy implementation...', to focus on national priorities and the NDP (South African Presidency, 2020: 3, 22). Other roles of PRS specified in the policy framework include providing advice to the President and members of Cabinet and to provide information on best policymaking practices (South African Presidency, 2020: 24). The conclusion to the policy framework notes that PRS's work includes providing policy briefs as part of providing 'comprehensive capacity support to the policy development system.' (South African Presidency, 2020: 25). The PRS plays a central role in the policy advisory system if its policy advice directly informs the President and the Cabinet. What merits further exploration when attempting to understand the policy advisory system is the relationship between the PRS and the range of other internal and external structures that can provide policy advice, which includes the NPC and the DPME.

MINMECs and FOSAD

There are two contexts within which policymaking is discussed, and these contexts are important in terms of shaping the focus of policy advice. The one context is intergovernmental relations. Tapscott (2000: 119) notes how the constitution created this context because it promotes cooperation between spheres of government. The need for cooperation in intergovernmental relations is the context within which the Forum of South African Directors General (FOSAD) and the MINMECS were created. These structures are important in the policy advisory system as recipients of advice from PRS and other sources (e.g. departmental units and commissions) and potential providers of policy advice. FOSAD is noted as one of the important structures in the policy approval process in the National AI Policy Framework (DCDT, 2024: 2).

MINMECS comprise the relevant line minister and the MECs from the nine provinces (Mubangizi, 2023: 636-637). The MINMECS are written into law as section 9(2) of the Intergovernmental Relations Framework Act refers to these structures (Mubangizi, 2023: 637). These structures are institutionalised. Their work is part of a pattern of practice, which makes it a long-term component of a policy advisory system. Their role is outlined as being to '...harmonise legislation, devise a joint strategy to create, formulate, and implement programmes. Their role is also to promote a common understanding of goals and to provide strategic direction in a sector (Levy and Tapscott, 2001: 91 in Mubangizi, 2023: 637). Mubangizi (2023) criticises the MINMEC structures because these structures focus on sectors, whereas issues are cross-sectoral. However, in a recent MINMEC briefing, it becomes apparent that political will can lead to cooperation on cross-sectoral issues. In a briefing from the MINMEC for public works, Minister Macpherson highlighted that the focus of the MINMEC was to plan for implementing the policy goal to expand construction significantly in South Africa (Macpherson, 2025). Reference was made to interdepartmental cooperation between the South African Policy Services (SAPS), the Department of Public Works and Infrastructure, and the National Treasury to address the issue of disruptions of construction (Macpherson, 2025). While this is only one example, this demonstrates that whilst the MINMEC may have a sector-specific focus, the ministers can reach out to each other to develop cooperative initiatives to address policy issues that have cross-sectoral effects. This kind of cooperative initiative may be informed by policy advice provided to relevant MINMECs.

FOSAD is another long-standing intergovernmental structure. FOSAD clusters' role was to support cabinet committees (Gumede, 2008: 13). Booysen (2006: 743) refers to FOSAD as the base from which director generals of government departments process ministerial initiatives and offer guidance to the policy unit. Mubangizi (2023: 638) refers to FOSAD as an administrative body and an intergovernmental structure whose role is to facilitate and promote intergovernmental relations. FOSAD is described as a space where directors general can raise issues without political interference, where they can share best practices, act as a think

tank, as well as direct public sector management through coordination and addressing cross-cutting issues that extend across the spheres of government (Mubangizi, 2023: 638). In their report on climate change governance in South Africa, Averchenkova, Gannon, and Curran (2019: 19) describe FOSAD as a structure that includes senior civil servants from the different ministries whose role is to coordinate policy development and implementation. A further role is to check the alignment of departments to priorities and monitor what is being done regarding ministerial priorities as well as offering departments technical support (Averchenkova et al., 2019:19). The report on the governance of climate change illustrates the continued importance of FOSAD as it is referred to as a key mechanism for coordination with the interministerial committee on climate change and the intergovernmental committee on climate change (Averchenkova et al., 2019: 19). Considering its roles as outlined above, FOSAD can be a receiver of policy advice and a provider of important information for policy development and implementation.

The second context in which policymaking in South Africa can be understood is the overarching goals of the executive. Booysen (2006: 731, 733) reflects on policymaking from 2001-2006 and notes how an elaborate system was constructed to focus on coordination and integration of policymaking to facilitate policy implementation, specifically 'rapid policy implementation'. The focus on coordination and integration was centralised in the presidency, and by 2006 there were 'structures' in place, and these structures were described as 'strategically dominant' (Booysen, 2006: 732). Policy implementation is still an important focal point in South Africa's public policy landscape. The words coordination and integration still appear prominent. The question that remains important is: is there a meta-policy goal driving the work of the current policy advisory structures? Have the roles of these structures remained the same? Do these structures focus on policy advice for coordinated policymaking only, or is there also a focus on policy implementation? Another avenue for exploration is whether strategic policy advice based on knowledge and experience filters up through the FOSAD and the MINMECs to the executive and down as policy choices from the executive for departments to act on. And how do these structures inform the cabinet's work.

Cabinet Committees

Gumede (2008: 12) describes the role of cabinet committees as being involved in creating and collaborating on issues that affect sectors related to policy and the development of legislation. Further roles include prioritising issues for substantive discussion, facilitating integrated cabinet decision-making and a cooperative approach to governance, discussing policy and political issues for inclusion in memoranda for cabinet and for policymaking. Sharing largely the same personnel would be the government clusters. Policy areas are clustered under the leadership of two ministers per cluster. Clusters are described as groupings of government departments that have cross-cutting programmes (Gov.za, n.d.).

There are five main clusters:

a) **Cluster 1:** Economic sectors, investment, employment and infrastructure development.

b) **Cluster 2:** Social protection, community and human development.

c) **Cluster 3:** Governance, state capacity and institutional development.

d) **Cluster 4:** Justice, crime prevention and security.

e) **Cluster 5:** International cooperation, trade and security.

The cluster system recognises that addressing policy issues requires interdepartmental cooperation and a connected approach to policy development. What is not clear from the readings is whom these clusters take advice from (PRS, FOSAD, MINMECS, DPME, NPC, and/ or do they source advice from outside of government structures). An important structure that offers focused advice across all of government is the Office of the Chief State Law Adviser. According to the Department of Justice and Constitutional Development (n.d.), the Office of the Chief State Law Adviser '… provides legal advice, representation, and legislative drafting services to the executive, all state departments at both national and provincial levels, municipalities, parastatals…' The PRS and other structures can seek legal advice on policy from this office.

This section has outlined various structures that form part of the policy advisory system in South Africa. PRS is envisioned to play an important role in providing policy advice to various structures (the cabinet, the MINMECs, FOSAD, and the ministerial clusters). While FOSAD and MINMEC can be recipients of policy advice, the structures can also be potential sources of policy advice. Director Generals of government departments would be able to share knowledge about policy related concerns, implementation challenges, and information on what worked in their policy domains. Ministers and Members of Executive Councils (MECs), who respectively form part of national and provincial government leadership, could take inputs from the MINMEC meetings to cluster meetings and cabinet meetings for policy decisions at the national government level. The provincial government ministers, the MECs, may do the same for provincial government responsibilities. PRS could play a role in translating what is shared at FOSAD and MINMEC meetings into policy advice for cabinet consideration.

4.5.2. Other sources for policy advice

The previous section referred to structures closer to the executive from which policy advice may be drawn. There are other sources for policy advice within the larger government system. While this is not within the scope, it is important to consider these sources for future planning and in terms of how digital transformation may make these structures valuable components of a government policy advisory system. Minister Solly Malatsi recently announced the Road Map for Digital Transformation on 8 May 2025, which demonstrates that actions are planned for the government's digital transformation (Malatsi, 2025). These structures could become important data sources and sources of policy advice for problem-solving.

One example is the Department of Science and Innovation's internal unit, the National Advisory Council on Innovation (NACI). NACI's role is noted as having been reconfigured in the 2019 White Paper on Science, Technology and Innovation policy (Cele, 2020). NACI's roles: advisory, monitoring and evaluation, and planning and coordination, and this is supposed to be in line with broad government priorities (Cele, 2020: 145). Cele (2020: 145) notes that there is a focus on improving NACI capacity to provide information for policy decision support, which includes providing up-to-date information to a ministerial STI structure. NACI is also envisioned as a collaborator with the DPME and Treasury to inform management and funding of NSI activities (Cele, 2020: 146). There is an appendix on NACI in the report after Cele's chapter which notes that in a review, the minister and Department of Science and Innovation (DSI) sometimes refer to NACI and their advice that is relevant for other departments, but their advice was mainly for DSI foci and it did not reach Cabinet level (Cele, Luescher and Wilson Fadiji, 2020: 149). NACI can be an important contributor to a policy advice system for PRS to source information for the relevant ministerial clusters. Considering the focus of the DSI, it would be interesting to explore whether this council uses AI tools in its work.

The Human Sciences Research Council (HRSC) is another structure from which PRS can seek policy advice. An HSRC report notes that a 2019 white paper refers to policy advice and different sources of advice, including NSI institutions and think tanks such as the Academy of Science of South Africa, HSRC, and the DSI Centres of Excellence (Cele, 2020: 145). One of these centres is the DSI-National Research Foundation (NRF) Centre of Excellence in Scientometrics and Science, Technology, and Innovation Policy at Stellenbosch University. The latter reflects a partnership that has been created for research on topics that are of interest to the government. In the report from the HSRC, the Council for Scientific and Industrial Research (CSIR) is also noted as a structure which does research, development, and technology transfers (Phaho and Dlamini, 2020: 34). These are all potential sources for policy advisory input.

There are also internal department units that provide advice externally to stakeholders, which facilitates policy implementation. One example is the Chief Directorate National Extension and Support Services in what was the Department of Agriculture, Land Reform, and Rural Development, which is aimed at facilitating food security and economic prosperity (Agwu et al., 2023: 25). According to Agwu et al. (2023: 25), there are extension and advisory workers who are linked to agricultural producers in rural areas. These advisers are civil servants. Capacity problems, which are partially linked to systemic factors in the education sector, hinder the work of these advisers (Agwu et al., 2023). However, with upskilling and introducing practices for monitoring that can be linked to DPME, they could be an important source of policy advice. The civil servants could report on their knowledge and experience from their interaction with the stakeholders, which could assist to populate a database that could be mined for challenges, lessons and policy advice.

In Pouris's chapter in part 2 (STI measurements, monitoring, and evaluation), South Africa's approach to monitoring the National System of Innovation (NSI) is referred to as 'institutionalisation' (Pouris, 2020: 77). In the policy context of science and innovation, it indicates that there is a tendency to create structures and processes in the department for monitoring purposes. These structures are collecting data and could become a potential source of policy advice and data from their evaluation work. If the data is stored, this could be used for analysis to develop policy advice. An important aspect that is unclear is whether structures in government departments are obliged to store data and, if they are obliged, where the data is stored. The DPME could be a central repository for such data. If data is stored centrally, this could be an easily accessible resource for PRS to extract information for policy advice and to explore where interventions may be needed to enhance policy implementation.

Government programmes could potentially offer lessons for policy activities from which internal government advisory units could draw information. One such programme is the Technology and Human Resources for Industry Programme (THRIP) in the Department of Trade, Industry, and Cooperation. This programme focuses on building interaction for implementing policy goals such as drawing on technology for development. THRIP is noted as being praised for its work in a review (Cele, 2020: 144). This is a programme run by the National Research Foundation (NRF) where incentive funding is provided for research and technology development and capacity building in South Africa's industry sector (DTIC webpage). This programme is a long-standing one as it was established in 1992 and its creation is attributed to the government recognising that technology was important for economic development (Skeef, 2002: 60).

Another source of policy advice is through units that are contracted in by ministries. The Ministry of Health has used policy advisory services extensively. Singh (2020) explored the ministerial advisory committee on COVID-19 and in this exploration identifies at least ten ministerial advisory committees that the Ministry of Health had constituted, which included the Ministerial Advisory Committee on Coronavirus Disease 2019. This indicates a pattern of creating advisory committees for policy advice in the Ministry of Health in South Africa. What needs further exploration is whether the Department of Health has its own internal research units that provide some advisory function or whether the ministry has used an ad hoc approach to seeking policy advice. Furthermore, it would be important to establish whether and how data from these sources are being stored.

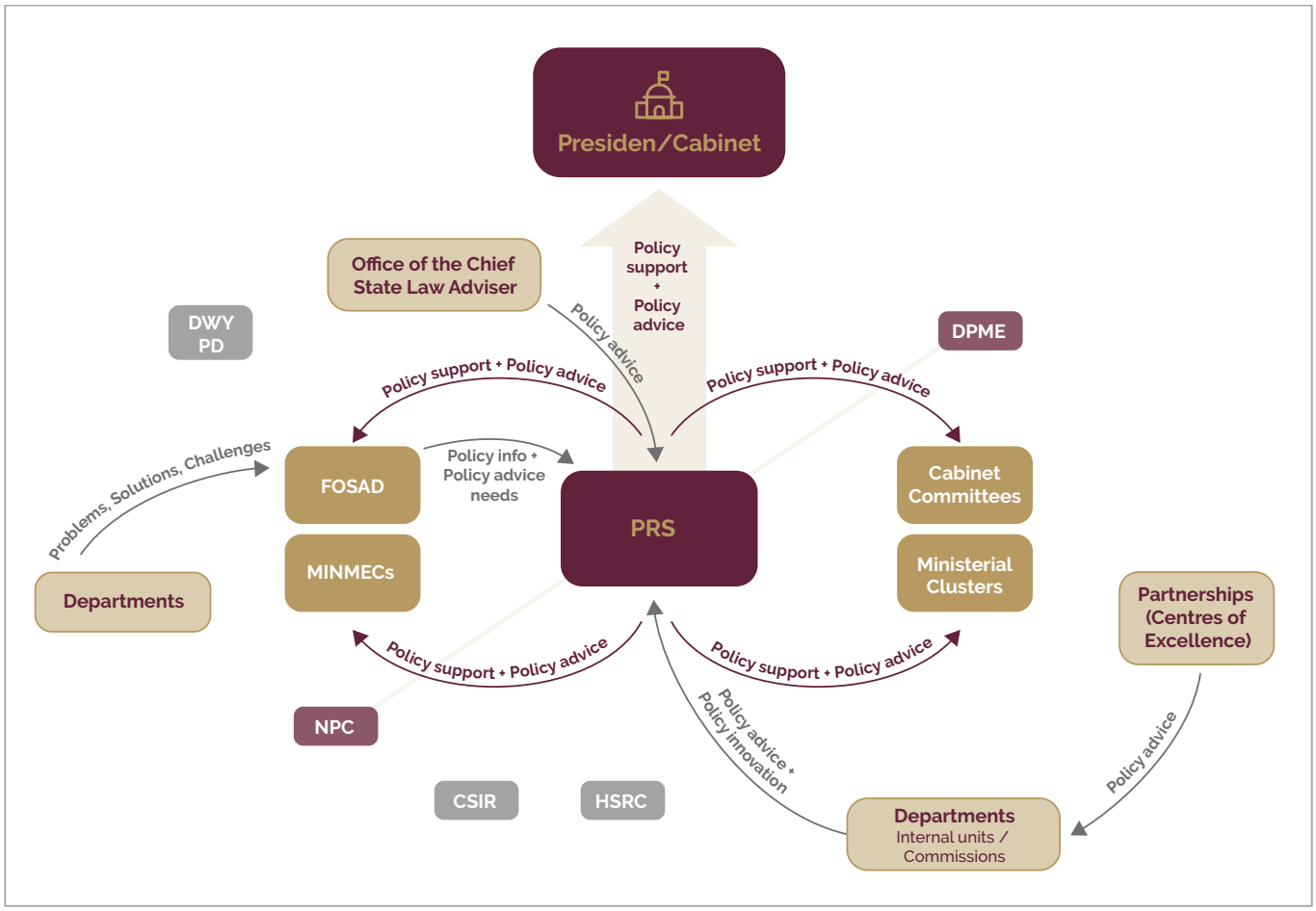
According to the NPDF (South African Presidency, 2020), there are also potential sources of policy advice at provincial and local spheres of government. At subnational levels, it refers to Macro Policy Units in premiers' offices and Policy Coordination Units inside institutions (South African Presidency, 2020:22). The latter units are meant to coordinate internal departmental interaction between relevant stakeholders, and their role includes policy support, checking alignment with national priorities, and testing whether the intended policies are worthwhile (South African Presidency, 2020: 22). While outside the scope of work, the units can provide important data for policy advice.

The policy advice system may also include instruments for developing policy advice. The NPDF (South African Presidency, 2020: 3) refers to the Socio-Economic Impact Assessment System (SEIAS) created in 2015. This is a tool for analysing public policies for costs, benefits, and impact and for alignment with NDP priorities. (South African Presidency, 2020: 4). The unit is in the Presidency (South African Presidency, 2020: 5), and its role is to 'facilitate and provide guidance to the national departments on the application of SEIAS to the design of policies, legislation, and regulations.' (South African Presidency, 2020:5) What is important is where the data that this policy tool collects is being stored and if the data is accessible as a source for training an AI tool to draw lessons and challenges for policy advice. Depending on the data, this could be another important tool for PRS to use for policy advice that focuses on advocating for intervention.

Based on this preliminary exploration, policy advice appears to be provided via units in government and via commissions created by government as well as outside structures that are linked to government departments. This section has noted that several policy advice structures exist in the presidency and there are some policy advice structures in national government departments such as Science and Innovation, while other departments (Health) draw in policy advice through creating specific structures that are not necessarily permanent. While still part of a unit, the presence of a Socio-Economic Impact Assessment System can be viewed as an instrument that forms part of the policy advisory system. Policy related advice may not only be geared toward policymaking, but also to policy implementation through providing advice to stakeholders.

It is not clear whether individual actors engage with policymakers to provide advice and how this happens. Specifically, it is not clear whether ministers and the presidency draw advice from individuals inside or outside of government. The NPDF (South African Presidency, 2020: 23) noted that deputy ministers are not involved in cabinet meetings. It would be interesting to explore whether deputy ministers have a key role to support ministers through providing policy advice. In the current context of a government of national unity where various opposition parties' leaders have been drawn into government, do deputy ministers fulfil a role of partisan advisor? More exploration is needed on who engages with policymakers and how.

South Africa Figure 1: Structures and directions of flow of policy advice



Source: *Author (2025)*

The diagram above reflects the policy advice flows with the PRS as the central structure for sourcing and providing policy advice. The structures that include director generals and ministers can source policy advice from PRS and from their engagements. PRS can draw information to support policy advice. The DPME can be an important source of data if it serves as a repository for information from departments. The graph only has lines connecting NPC and DPME with PRS because the relationship in terms of policy advice and policy support is not clear. The Department of Women, Youth and Persons with Disabilities (DWYPD), which is in the presidency, can also be a source of information for the PRS. The government departments that have internal units and those who establish commissions for policy advice can be potential sources for PRS to draw data from. Structures such as CSIR and the HSRC, which are linked to government, are also potential sources for data and policy advice. This research does not provide a map of all departments and the units that provide policy advice. But each research unit should be considered a potential source of data. Having an extensive range of sources of data would be important when using AI for developing policy advice that is tailored to the South African context.

4.5.3. Different forms of evidence as sources of data for policy advice

Evidence-based policymaking is a key focus for government. The NPDF (South African Presidency, 2020) highlights that evidence is considered important for policy development. This evidence can be gathered and coordinated internally to government through the structures. In this section, I outline the sources of potential evidence from which policy advice may be sought. These different sources of data, if gathered and stored, can be important for developing a contextualised understanding of policy concerns. It is not clear from the documents analysed whether data from these sources are gathered and stored.

The NPDF (South African Presidency, 2020) refers to various kinds of evidence that can be used when diagnosing problems. These sources of evidence include evidence from research, practice, citizens' experiences and participation, expert knowledge (published and commissioned research), consultations with stakeholders, existing statistics, and what emanates from policy evaluations, amongst others (South African Presidency, 2020: 13, 19).

These sources of evidence direct attention to potential data sources that can potentially be aggregated for analysis to develop policy advice. Citizen experiences may be gathered from, for example, the presidential hotline, izimbizo, and other public participation initiatives. Stakeholders' inputs may be elicited through forums. Findings from academic research could be sourced through journal articles, books, theses, and dissertations. While some journal articles may be expensive, master's theses and dissertations are mostly open access via universities. Increasingly, articles are published in an open access format. The government also has an in-house unit that provides statistical information on South Africa's population (Statistics South Africa), which could offer useful data to analyse for policy advice.

When thinking about these ranges of potential sources for drawing policy evidence to inform policy advice, an important consideration is the state of data capturing within government. For example, are sources of evidence from citizen engagements captured and stored, and if stored, is this data used for developing policy advice and is it accessible to PRS? These questions highlight that connections are needed between various data sources that could be used as a basis for developing policy advice. PRS could create connections by engaging with relevant actors and negotiating drawing data from these sources. One example where intervention may be needed is for municipalities to store the inputs from public participation meetings on the Integrated Development Plans. If these inputs are captured and available for analysis, it can be used to identify public concerns, as well as specific public concerns in particular communities. AI tools could be used to identify such patterns. In the current context where service delivery failures are continuously highlighted, such data may assist with developing and advocating for targeted interventions to improve service delivery.

Sometimes preferred sources of policy advice may be privileging some experts over others. For example, Singh (2020) explored the inputs of experts into COVID-19 policy decisions and noted that experts in the social sciences were excluded. Drawing in a range of experts would offer nuanced inputs for understanding the complex. Part of another exploration could be whether policy advice units in a policy advisory system actively utilise evidence from different sources. This would be important for problem-solving where policy issues are often recognised as complex and interconnected.

4.5.4. Connection between units that can provide policy advice is unclear

The NPDF denotes policy coherence and coordination as important governmental goals. These goals are linked to standardising policy development in South Africa, ensuring alignment with policy priorities, and ensuring that policy implementation happens. The NPDF indicates a preference for uniformity in policy development and follows a policy stages approach to clarify the steps in policy development as well as what activities are required at each stage (South African Presidency, 2020). The NPDF inspires exploring whether policy advice units play a role in policy development. This may be a focus for another project.

What was noted in the earlier discussion is that the current policy advice system appears fragmented. There are several structures that are potentially involved in providing policy advice. These structures are in the presidency, in government departments and inside government as well as outside of government where there are partnerships. There is a pattern of creating structures for policy advice. But it is only clear from the readings how some of these structures are meant to interact. Diagram 1 illustrates how PRS can interact

with other structures for policy advice and expectations about who may seek policy advice from whom. Considering the central role of PRS in the policy advisory system, this unit would be best placed to create connections through sourcing policy advice and sourcing data for developing policy advice from the range of structures and systems such as SEIAS in government.

4.6. AI use in the South African government system

It was not evident from the readings examined that AI is being used to develop policy advice in the South African government system. It may be that AI tools are being used when providing policy advice, but this has not been researched and documented. A limitation of this research is that it was based on document analysis only. Interviews would have been useful to establish to what extent the structures referred to earlier (for example, PRS, FOSAD, MINMEC, DPME, NPC) use AI and other digital tools for developing policy advice.

AI tools have, however, been used in the South African government system. This section draws attention to examples, SARS and CSIR, where AI tools are used. By reflecting on how tools have been used, it offers insight into the potential to draw AI tools into policy advisory systems. The next section highlights what researchers have explored in terms of the potential use of AI tools in the South African government system. This discussion will include references to benefits and challenges that come with the use of AI tools and the focus is broad to demonstrate what is possible. This is important considering the South African government's intent to incorporate AI into government to improve efficiency as expressed in the South African Department of Communications and Digital Technologies (DCDT) Artificial Intelligence Policy Framework (DCDT, 2024). What is discussed in this section is meant to offer PRS some considerations for the use of and promotion of AI tools for developing policy advice in the government system.

Before discussing AI use in government, this paragraph outlines how we can understand AI. Zuiderwijk, Chen, and Salem (2021: 2) review research on AI and public governance and they explain AI in terms of key features which include its technical components that enable AI to 'process data and information in a way that entails intelligent behaviour'. They draw from UNESCO (2020 in Zuiderwijk, Chen, and Salem, 2021: 2) that AI can develop certain capacities such as '…learning, planning, prediction, and control.' And that in practice AI refers to algorithms and models which can be designed and can '… provide the AI system with the ability to act with some level of autonomy.' (Zuiderwijk, Chen, and Salem, 2021: 2) With specific focus on policymaking, they draw from different sources and refer to defining AI 'through' ''systems that display intelligent behaviour by analysing their environment and taking actions—with some degree of autonomy—to achieve specific goals.'' (Zuiderwijk, Chen, and Salem, 2021: 2) What is important is that AI is designed to engage in activities that humans normally do in a policy context and that its potential value lies in its ability to process information and use lessons learnt to contribute to policy processes by informing planning, through prediction, and improving control.

The South African Revenue Service (SARS) has used AI tools for tax administration. Bhengu (2023) explored the benefits and costs of using it in tax administration in South Africa. Bhengu (2023: 5) points out that SARS had already started planning for incorporating AI into its work in 2021 **when it planned for the cost of incorporating technology**. Bhengu (2023: 5) notes that SARS started **recruiting in 2022** and has been **using AI for fraud detection**. The benefit has been recorded as **significantly reducing tax fraud** (Bhengu, 2023: 6). SARS is also noted as having integrated AI into its work without reducing staff (Bhengu, 2023: 6). One of the ways that SARS uses AI is through a **chatbot called Lwazi** which is used through e-filing and the SARS Mobiapp (Bhengu, 2023: 17).

There are various benefits to using AI tools which the example from SARS highlights. Bhengu (2023: 20-21) notes that SARS **can extract more information from sources using AI** and it can **cut down on the time it takes for third party verification**. The adoption of AI has **expanded tax services to taxpayers through an app** (Bhengu, 2023: 21). AI has brought a reduction in interpersonal services and cash shops and thus has contributed to the **lessening of corruption within SARS** (Bhengu, 2023: 23). Bhengu (2023) recommends that the best path **is a combination of AI and a human element**. Incorporating AI with a human element is part of the AI policy framework of 2024 (DCDT, 2024: 1). While there can be substantive benefits when using AI tools, to learn about how to integrate AI tools into a government structure, would require engagement with SARS

around what preparatory work was done in terms of human and other resources, which data sources are accessed, and the AI tools that were used (the chatbot Lwazi was already mentioned).

Another example of AI use that requires further exploration is the CSIR. The CSIR has an AI and extended reality research group. The group describes its focus as predictive modelling and advanced analytics to contribute to **data driven responses to problems** in industry, commerce and society. Their work includes **predicting outcomes** using historical data and modelling techniques and they use advanced analytics to **develop insights and identify patterns and trends** (CSIR webpage). PRS could consider engaging with this structure to establish if they have produced policy advice tailored to their sectors of interest and how they have used AI to develop policy advice.

4.7. The potential of using AI in the South African government system

Various researchers have argued that AI would be valuable for the South African government system. There are two themes linked to AI use in the literature. The first theme is the need for boundaries around AI use (Brand, 2022; Cloete, 2024). This speaks to the issue of how to control the use of AI and considerations around when does the use of data for decision-making violate human rights and lead to discrimination. The second theme is the potential utility of AI for government. There is a focus on the utility of AI for human resource management (Chilunjika, Intauno, and Chilunjika, 2022), AI's potential for policymaking in South Africa and the risks (Chilunjika, 2024), as well as an exploration of AI for improving policymaking and implementation (Nyathi, 2023).

Then there is research that explores how AI could be useful for agenda setting (Mabokela and Schlippe, 2022). Mabokela and Schlippe (2022) explore the utility of AI to do sentiment analysis of social media responses by South Africans (using different South African languages) to establish what these South Africans view as important policy concerns. This work indicates the potential of AI use for agenda setting. In a basic search for AI and social media and agenda setting and the health department, one of the items refers to the Department of Health using social media for distributing messages out to the public. The kind of research that Mabokela and Schlippe have done will have to be commissioned if the aim is to build or improve a database that can be mined using an AI tool for developing policy advice on policy concerns that citizens perceive as meriting attention.

Those who argue for boundaries around AI differ in terms of the extent of the boundaries. Brand (2022) argues for some legal management of AI, considering, amongst others, South Africa's constitutional imperative to protect human rights and the potential human rights issues linked to AI use that is not responsible use. He argues for responsible AI use within a legal framework and draws attention to the Canadian directive, which incorporates a focus on human rights and maintaining human intervention. He provides an outline for a legal framework for responsible AI use in South Africa (Brand, 2022: 146) as well as recommends that South Africa use Canada's directive because it is practical, it focuses on risks, and it recognises fundamental human rights (Brand, 2022: 147). Nyathi (2023: 30, 31) also refers to the need for regulation for various reasons, including that people's lives will be affected by machine-made decisions, there is a need to prevent algorithm manipulation and bias, and to protect human rights. Cloete (2024: 22) recommends starting from the lowest level of regulating, which is self-regulation, to stronger regulation as needed. This reflects a pragmatic approach to AI management and governance.

Some researchers have explored how AI could be potentially useful for the South African government. Brand (2022) offers advice on what South Africa should consider in terms of managing or regulating AI use in government. Brand (2022) mentions current uses of AI by governments, which include service delivery such as **algorithms to facilitate traffic flow** and using **health apps for consultations** as well as using these technologies to **identify crime hotspots** (Brand, 2022: 132). Other ways that the technology can be used is a **chatbot that provide government information** (which he notes is low risk) and having a **tool that decides on who qualifies for social grants** (which he notes is high risk). (Brand, 2022: 139) He also refers to other

potential uses of AI and technology for **promoting public participation** and for **monitoring the delivery of public services** and these should be interactive (Brand, 2022: 145).

Chilunjika, Intauno and Chilunjika (2022) refer to Jarrahi (2018 in Chilunjika et al, 2022: 2) about human resources functions where AI has been used for **developing corporate strategies**, **recruiting talent, training and performance management**. They also note that there has not been much enthusiasm for bringing AI into HR in the public sector (Chilunjika et al, 2022: 2). But they draw from Arinder (2016 in Chilunjika et al, 2022: 3) who noted a range of activities that AI can be useful for such as **evidence-based decision making**, **for cost benefit analysis over time** and what is also emphasised is the role of AI in transformation. Focusing more directly on policy making benefits they refer to **how AI can do mundane tasks that require repeating while civil servants can focus on the work that has higher value** (Chilunjika et al, 2022: 4). AI can **improve efficiency** by breaking up a larger task into smaller tasks, it can be automated where no human intervention can be required, and **public servants can use AI as a supplementary instrument to their own skills** to **enhance effectiveness of the policy process**. (Chilunjika et al, 2022: 4). They refer to specific ways that using AI tools can assist the SA public sector, which include making recruitment procedures effective, lessening routine administrative tasks and reducing paperwork as well as enhancing public service delivery (Chilunjika et al, 2022: 5).

As noted earlier, AI can be useful for providing a range of evidence-based solutions to improve service delivery. Improving service delivery can be linked to improving policy implementation. Implementing government policy is recognised as a key challenge in South Africa (Chilunjika, 2024: 395; Nyathi,2023: 2, 3, 4). Chilunjika (2024) points out that this technological and information era is useful for South Africa to use the opportunity to tackle policy implementation (Chilunjika, 2024: 394). Chilunjika (2024: 395) draws from van den Berg (nd) the point that AI can be useful for implementation because implementation is 'a data and information-driven process'. This advice is considered in the context of being responsive to people's expectations as well as offering access to essential services in different ways (Chilunjika, 2024: 396). AI tools can be useful for **identifying potential future challenges** and thus improve preparedness (West and Allen, 2018 in Chilinjika, 2024: 398). Chilunjika (2024: 398) draws from Abillana et al (2021) the potential value of AI to **help policymakers to interpret behavioural trends and demographics** and **to find alternatives and to make 'smarter policies'**. The research group referred to earlier in the CSIR seems to be geared toward doing this kind of work. Nyathi (2023: 8) refers to the value of using AI for policy implementation, as facilitating proactive action from the government rather than a reactive response. Thus, using AI tools to develop policy advice could assist with improving policy implementation by offering prediction and action responses and by providing policy advice that would promote adaptation during implementation to secure policy outcomes. PRS could engage with CSIR about data sources, trends or patterns in policy areas of interest, as well as whether they actively provide policy advice and to whom.

An important part of incorporating AI tools into policy processes is the access to data that is required. Nyathi (2023) also explores the potential use of AI for tackling policy implementation and policy making. Nyathi (2023: 8) draws from van den Berg the value of using AI as being getting data that is accurate to inform decision making. What will be needed for the introduction of AI into government policymaking would be '… timely data, quality data and accurate data…' (Nyathi, 2023: 8) An important exercise would be to assess which government structures produce relevant data, where is this data housed and what is the quality and accuracy of the data produced. An additional change that would be needed with incorporating AI into policy activities is training. Nyathi (2023: 6, 9) notes that due to the data-driven base of AI, people will need reskilling and upskilling. This change is recognised in government's digital transformation intentions.

What these works do not reflect on is the political nature of policy processes. Policy choices and the identification of agenda issues are done by a political party or political parties who have made commitments to voters on their policy agendas. What is also insufficiently recognised when considering power dynamics and authority is that AI can produce extensive data analysis that is comprehensive and provides numerous feasible alternatives, but it is still policymakers who have the authority to make policy decisions and to choose whether to use the evidence produced by an AI for policymaking purposes.

The utility of AI would need to be considered within the context of South Africa's high unemployment rate, as potential employment losses in the civil service could be facilitated by the incorporation of AI without a human element. The South African Constitution (1996) makes discrimination on various specified bases illegal.

An issue with the use of AI is that it may have built-in biases derived from the different sources of information that it is 'fed' from. What merits consideration when developing an AI tool for policy development is what are the sources of data that it will be 'learning' from. PRS may need to consider whether it will initiate a drive to encourage swift digitalisation in government through promoting extensive data capturing by departments (through SEAIS and the DPME) and drawing in data from, for example, StatsSA, HSRC, and the CSIR.

Another key concern would be how to protect data privacy. This is perhaps why considering a tailor-made AI for policy advice would be useful. However, PRS can engage with SARS on what data sources it uses and how it engages in protecting privacy. South Africa has, for an extended period, experienced variability in terms of energy supply (electricity). Part of planning for incorporating AI would need to include an investigation into the electricity requirements needed for using AI in government. The use of AI with a human element is recognised in the DCDT's (2024) AI policy framework, and so too are concerns about potential biases, concerns, and protecting private data. Incorporating AI entering a policy advice system would require planning for these aspects. Technical experts in AI and policy analysts would need to cooperate for this planning.

The utility of AI for developing policy advice lies in its ability to process large amounts of data in a short period of time to produce patterns from data. It is these patterns that can be useful for developing policy advice. This data processing, however, needs purpose, such as assisting to identify problems for policymaking and/ or identifying challenges to implementation. The latter is broad and may include asking AI to highlight operational inefficiencies or regulatory barriers that inhibit progress. What is important would be for government data collectors to be able to provide the kind of information for processing via AI tools. This would require, for example, that government departments provide information on their work activities to a central database. This database could also include the annual reports and other reporting materials that the departments submit to parliamentary committees. An AI tool such as LLM-based tools could then be employed for a number of purposes, such as monitoring progress on implementation, monitoring if departments are following a particular approach or different approaches to policymaking, as well as for learning about good practices and/ or creative ideas for addressing policy concerns, as well as whether policy alignment is evident in the work that is being recorded.

The main tool that was used in the government was the chatbot used by SARS. While the CSIR has a research unit, and what this unit produces and for whom requires further investigation. The other material reflects contributions from several researchers who see the potential for using AI in the South African government system for elements of human resources management in government and policyrelated activities. While human resources management is not necessarily a policy activity, it is related because human resources are key factors in policymaking and policy implementation. What is also important from the previous discussion are considerations about the extent to which there should be regulation of AI. It would be very difficult to regulate AI use in society and in government. But what has been proposed is that some regulation is needed around the use of AI in government. In the context of the policy advisory system, what is needed is an in-depth investigation (research that includes interviews) to establish the extent to which AI is used by the people in these structures, which type of AI is being used, and whether and how it is used to develop policy advice. This would be an important source of learning for PRS on the capabilities that exist in government. This would also allow for PRS to identify structures that are able to produce policy advice quickly. In South Africa, **no digital tools developed specifically for enhancing PAS at the central government level were identified.**

4.8. Conclusion and recommendations

This report has focused on exploring the advisory system in government, with a first focus on national government, particularly the executive. Within the presidency and government departments that have been referred to in this report, there is a tendency to create structures that can fulfil the need for evidence to inform policy advice. However, what is not evident from this exploration is how the structures in South Africa's policy advice system are connected.

1. Recommendation that PRS creates a more networked policy advisory system.

This could be done informally through fostering partnerships (e.g. with researchers from the HSRC) and with other internal policy advice structures in government. Building partnerships could lead to a deeper understanding of the practical foci and competencies in these structures and for improving support to facilitate the work of internal government structures. These structures could become important sources of policy advice on policymaking and implementation for PRS. Policy advice in terms of implementation is emphasised because it is arguably where strategic interventions are needed to bring about positive changes to the lives of the majority of South Africans.

2. Recommendation that PRS becomes a sourcing agent for policy advice and data from various government structures and other contracted structures.

In terms of the role envisaged, these policy inputs (evidence) would be shared with the President and the Cabinet. Considering that the President and the Cabinet are key policymakers in South Africa, PRS could actively promote evidence-based policymaking by drawing inputs strategically from a range of potential sources within government. PRS would be the link that connects structures that can be sources of policy advice and policy relevant data within government. PRS would be able to draw on the wider expertise existing in government and enhance the role of various government structures in policy development and implementation.

3. Recommendation that PRS commission a custom developed AI tool for producing policy advice in the South African context.

A custom-based AI tool commissioned by PRS that draws on South African data sources would incorporate consideration of the policy challenges in the South African context. While other AI tools may also be used to explore establishing patterns that indicate best practices, what will need to be considered are the potential biases that may be built into AI tools due to wide-ranging data sources from which it has 'learnt'. In addition, PRS could, through engagements with units in the policy advisory system, explore if AI is being used to develop policy advice and which AI is currently being used. This would allow PRS to establish the state of competency for AI use that exists internal to government.

4. Recommendation that PRS engages with specific structures (SARS and CSIR) to learn about AI incorporation into government.

Focus would include exploring what SARS incorporated (was it more than just a chatbot), the electricity requirements, and the preparatory work in terms of skills development and internet access requirements, what sources of information the AI could draw from, and what the costs were.

5. Recommendation that PRS initiates exploring the state of policy relevant government data (where is data stored, quantity and quality of data.)

PRS may need to initiate an exploration of the state of government data and what would be needed to create a single or multiple data source for a custom AI tool to learn from to inform policy advice. This exploration would require technical expertise in AI and input from experts who understand how the South African government system works in practice.

6. Final Recommendation

A **final recommendation** would be to **consider whether SEIAS could be converted into an AI tool or a database that contains extensive government information that can be analysed** using an AI tool for information to inform policy advice.

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