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## **Green Governance: The Role of Public Administration in Achieving the Sustainable Development Goals**

**Prem Bahadur Giri\***

Wisdom Academy And Research Center, Kathmandu Nepal,  
and

Nagarjun Municipality, Kathmandu Nepal

[premgiri72@gmail.com](mailto:premgiri72@gmail.com)

<https://orcid.org/0000-0003-0970-5149>

**Tek Nath Dhakal, PhD**

Wisdom Academy And Research Center, Kathmandu Nepal,

[dhakaltn@gmail.com](mailto:dhakaltn@gmail.com)

<https://orcid.org/0009-0001-2565-7012>

**Hari Prasad Ghimire**

Everest Center for Research and Development Partners, Kathmandu, Nepal,

[harighimire2@gmail.com](mailto:harighimire2@gmail.com)

<https://orcid.org/0000-0002-5206-9021>

**Uttam Raj Giri**

Nagarjun Municipality, Kathmandu Nepal,

[giriuttamraj@gmail.com](mailto:giriuttamraj@gmail.com)

<https://orcid.org/0009-0001-2303-0398>

**Ajay Giri**

Wisdom Academy And Research Center, Kathmandu Nepal,

[ajayrajgiri3@gmail.com](mailto:ajayrajgiri3@gmail.com)

<https://orcid.org/0009-0008-1631-1168>

**Corresponding Author\***

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## **Abstract**

**Background:** Green governance endorses the Sustainable Development Goals, but the administrative processes under which sustainability is structured by the public institutions are little known. Current literature is predominantly set on environmental policy instruments, and little has been said on the role that the public administration plays as a governance player in determining policy consistency and outcomes.

**Methods:** The paper will use PRISMA 2020 to conduct a systematic literature review. The Scopus, Web of Science, and Google Scholar retrieved articles published after 2020. There were 53 studies identified in the multi-stage screening process. The thematic synthesis was used to analyze the selected literature to determine common patterns of governance, institutional mechanisms, and administrative challenges.

**Results:** According to the review, there are five fundamental dimensions. Mechanisms of governance, bureaucratic capacity and policy tools, institutional barriers and best practices. Comprehensive and inclusive systems of governance enhance the coherence and legitimacy of policies. Regulatory and adaptive capacity is optimized by professional and independent bureaucracies. Sustainability performance is enhanced with combined regulatory, market-based, and informational tools. The operational environment of fragmented institutions, low capacity, low accountability and political short-termism still limits the implementation of SDGs.

**Conclusion:** Green governance also requires institutional quality and administrative capacity rather than policy design. Sustainability commitments need to be converted into practical results, which require strong coordination, participation and performance monitoring.

**Novelty:** The paper reconstructs the concept of green governance as an administrative transformation process and places a central role in sustainability transitions as a constitutive agent of the public administration.

**Keywords:** green governance, policy integration, public administration, Sustainable Development Goals, systematic literature review

## **1. Introduction**

Modern systems of governance face escalating environmental pressures from climate change, ecosystem degradation, and biodiversity loss (Rockström et al., 2009; UNEP, 2023). These pressures threaten socioeconomic stability and expose the limits of development models based on resource-intensive growth. Sustainable development has therefore emerged as a dominant policy approach to balance economic prosperity, environmental integrity, and social equity (Oecd, 2019; Raworth, 2017; Sachs, 2015).

The adoption of the United Nations Sustainable Development Goals established sustainability as a global development agenda integrating environmental, social, and economic dimensions (Nilsson et al., 2016; Sachs et al., 2019; UN, 2015). Although the political interest is high, the achievements of environment-driven goals and especially SDGs 6, 7, 11, 12, 13, 14, and 15 are



lopsided and inadequate (OECD, 2023; Sachs Jeffrey D. et al., 2023). The implementation gaps are still evident in the regional and governance levels.

Green governance has become a form of governance that incorporates environmental goals into the central systems of making decisions by society, instead of considering sustainability as an outskirts matter (Duita Andreas et al., 2010; Jordan & Lenschow, 2010; Meadowcroft & Steurer, 2018). It is focused on policy coherence, multilevel coordination, transparency, and stakeholder involvement (Bulkeley et al., 2014; OECD, 2019). It is a symptom of a larger change in the hierarchy-driven form of government to a network-based government, where the state actors, market actors, and civil society actors are involved (Ansell & Gash, 2008).

The major role in making green governance a reality is played by the public administration. It transforms political pledges into regulatory guidelines, budgetary plans and service provision systems (Christensen & Læg Reid, 2011; Pollitt & Bouckaert, 2004). Enabling conditions for sustainable development are also identified as governance and institutional effectiveness under SDG 16 (Fukuyama, 2013; OECD, 2019; UN, 2015). Administrative systems are thus important intermediaries between global agendas of sustainability and local implementation (Andrews et al., 2017; A. Meijer et al., 2018).

Although the SDG framework has a high level of normativity, there is still a vast disparity between sustainability promises and quantifiable environmental results (Sachs Jeffrey D. et al., 2023; UNEP, 2023; World Bank, 2021). Climate action, biodiversity conservation, and sustainable consumption have not yet achieved an improvement, as is agreed upon (OECD, 2023). This disparity is increasingly explained by the failure of governance and institutions, instead of the lack of finances (Andrews et al., 2017; Fukuyama, 2013).

Environmental objectives are frequently met through specialized ministries and loosely aligned with economic and social policy spheres like infrastructure, energy, and city planning (Jordan et al., 2013; Meadowcroft & Steurer, 2018). The policy effectiveness is cut down by fragmented mandates, minimal interagency coordination, and inconsistent regulation enforcement (Christensen & Læg Reid, 2011). Sustainability governance is also further limited in most developing contexts by insufficient administrative capacity, inadequate data, and a lack of accountability (OECD, 2019; Ribot, 2003; World Bank, 2021).

The lack of citizen participation and transparency leads to a lack of trust and individual compliance with environmental policies (Arnstein, 1969; Fung, 2015). These frailties in structure demonstrate the necessity to rethink the role of public administration as one of the core agents of green governance and the implementation of the Sustainable Development Goals.

This research paper looks at the topic of public administration as a constitutive actor in green governance and SDG achievement. It examines the incorporation of sustainability into the policies and developmental planning, evaluates the instruments of governance that would be useful in the implementation of the SDG, and determines the institutional limitations and enabling contexts that influence the performance of the administration. This paper covers the role played by the public administration in the design and implementation of green governance



measures and determines the best instruments of governance and institutional mechanisms that can best results in the attainment of the SDGs. The study conceptualizes green governance as an administrative transformation process that involves the public institutions and influences the policy coherence, regulatory credibility, and SDG performance by incorporating both the governance theory, institutional theory, and the public administration perspectives. This study aims to synthesize literature on public administration and green governance. It examines administrative mechanisms supporting SDG implementation. It identifies institutional barriers and enabling practices.

## **2. Literature Review**

The concept of green governance has become an important analytical tool for examining how political and administrative systems react to ecological crises and the requirements of sustainability. It describes policy tools, institutional structures, and processes that incorporate environmental goals in the mainstream governmental roles (Duita Andreas et al., 2010; Meadowcroft & Steurer, 2018). In contrast to the traditional environmental policy, where sustainability is an issue of sectoral interest, green governance focuses on policy coherence, cross-sectoral coordination, and multilevel governance (Jordan & Lenschow, 2010; Nilsson et al., 2016).

It is commonly accepted in the literature that green governance is necessary to make the Sustainable Development Goals effective policy action (OECD, 2019; Sachs et al., 2019; UNDESA, 2022). Sustainability is institutionalized as a global governance issue that must be met with combined actions in relation to climate action, energy systems, urban development, and biodiversity conservation in the SDGs (Rockström et al., 2009; UN, 2015). However, empirical data indicate that the progress is disbalanced, with the environmental SDGs having the lowest level in comparison to social and economic goals (Sachs Jeffrey D. et al., 2023; UNEP, 2023). This is a widening disparity that is being blamed more on the quality of governance than the ambitions of the policies (Andrews et al., 2017; Fukuyama, 2013).

The theory of governance shows the change in the mode of control, whereby the hierarchical mode is replaced with networked and collaborative systems that operate between the state, market, and civil society (Ansell & Gash, 2008). The institutional theory also focuses more on the fact that the sustainability outcomes also require administrative norms, rules, and professional capacity (Christensen & Lægreid, 2011). Combined, these interpretations introduce green governance as a practice of institutional change, as opposed to a limited environmental change.

The central role in sustainability governance belongs to the field of public administration, as it must formulate, coordinate, and implement policies (Pollitt & Bouckaert, 2004). Administrative systems are mediators between the global sustainability agendas and the domestic policy outcomes (A. J. Meijer et al., 2012; OECD, 2019). The creation of efficient institutions is supported by SDG 16 that identifies them as the facilitating circumstances to sustainable development (UN, 2015). The studies are continuously associated with administrative capacity and its connection with better environmental performance, especially



regarding the enforcement of regulations, inter-ministerial coordination, and the implementation of complex sustainability programs (Andrews et al., 2017; Christensen & Læg Reid, 2011; Fukuyama, 2013; World Bank, 2021).

It is commonly known that policy integration is one of the fundamental requirements of green governance and SDG implementation (Jordan & Lenschow, 2010; Nilsson et al., 2016). When environmental objectives are incorporated into economic, social, and infrastructure policies, the policy contradictions will be minimized, and improved sustainability impacts will be achieved (Meadowcroft & Steurer, 2018). The centralized methods of promotion, such as interministerial coordination and integrated planning systems, are advocated as the means of promoting the development of coherence and trade-offs between development and environmental protection (OECD, 2019; UNDESA, 2022). The systemic obstacles, including institutional silo, bureaucratic competition, and political short-termism, are still blocking integration, particularly in the developing governance situations (World Bank, 2021).

Green governance continues to rely on regulatory governance, which is a mixture of command-and-control regulation and market-based instruments such as carbon pricing and environmental taxation (Gunningham et al., 1998; OECD, 2019; Szentkirályi, 2014). These instruments do not work as well based on how they are designed, but rather based on the credibility of the enforcement and institutional trust (Fukuyama, 2013; ROTHSTEIN & TEORELL, 2008). The literature records that there exists a longstanding disparity between the formal environmental regulations and their enforcement due to the lack of a strong system of inspection, political influence, and corruption (Andrews et al., 2017; Meadowcroft & Steurer, 2018; Sachs Jeffrey D. et al., 2023; World Bank, 2021).

Another element of sustainability governance that has been cited is participation, transparency and accountability. Stakeholder participation is associated with an increase in policy legitimacy, greater local responsiveness and adherence to environmental regulations (Fung, 2015; Ostrom, 2010a). Open data platforms and environmental reporting systems are regarded as transparency-related tools that are linked to an increase in institutional trust and improved enforcement consequences (A. Meijer et al., 2018; UNDESA, 2022). Nevertheless, engagement tends to be token, being limited by elite takeover and insufficient civic space and prompts the necessity to institutionalize participation in formal administrative procedures (Arnstein, 1969; Cornwall, 2016; Ribot, 2003).

Although a lot of literature has been authored on environmental governance and sustainable development, little has been done on the administrative mechanisms that operationalize the concept of green governance. The current research concentrates on the design of policies and normative principles, and less on coordination mechanisms, practices of enforcing norms and administrative performance (Duita Andreas et al., 2010; Meadowcroft & Steurer, 2018). There is little literature that effectively incorporates sustainability governance with public administration theory. This research paper fills this gap by framing the concept of public administration as one of the key agents of green governance and SDG realization and sustainability as an administrative change agenda that is integrated with the public institutions.



### **3. Theoretical Framework**

#### **3.1 Conceptual Foundations**

This research is based on a harmonized theoretical framework that integrates governance theory, institutional theory, and public administration theory to show how green governance mechanisms help in the realization of the Sustainable Development Goals (SDGs). The conceptualization of the framework views the idea of public administration as the key affiliating institution with the assistance of which the sustainability norms, policies, and regulations are prototyped into functional results.

Green governance is perceived as not simply environmental policy but a governance system that encompasses the principles of sustainability throughout the administrative systems, policy processes and decision-making systems. Based on that, the theoretical framework places the public administration in the institutional point of contact between the global commitments to sustainability and implementing them in the national and local context.

#### **3.2 Governance Theory and Green Governance**

The theory of governance offers the theoretical framework behind green governance as a transition of the hierarchical and state-centered style of control to the network style and collaborative forms of control (Ansell & Gash, 2008; Rhodes, 2007). Governance theory, in the framework of sustainability, focuses on the need to have multi-actor coordination, policy coherence and shared responsibility among government agencies, the private sector, and civil society.

In this view, green governance appears to be a procedural approach whereby the environmental goals are integrated within the sectors as opposed to being concentrated in specialized institutions. The coordinating role is part of the public administration, which organizes inter-ministerial cooperation, coordination of policy tools, and trade-offs between economic development and environmental safety (Duita Andreas et al., 2010; Jordan & Lenschow, 2010). The model presupposes that the quality of administrative coordination and institutional interaction determines the effectiveness of governance, not only depending on the content of the policy but also on its form. Poor governance structures of fragmentation and lack of coordination should consequently sabotage goal implementation, irrespective of policy aspiration.

#### **3.3 Institutional Theory and Administrative Capacity**

The institutional theory serves to add to the framework by describing the way in which formal rules, organizational norms, and administrative practices influence the results of sustainability (North, 1990). Institutions establish the rewards and limitations within which a public administrator will act, thereby affecting policy uniformity, implementation of regulation and an extended dedication to sustainability objectives.

Administrative capacity denotes an institutional variable, which is a fundamental core variable that includes professional competence, organizational stability, technical skills, and regulatory power (Andrews et al., 2017; Fukuyama, 2013). Larger facilities have an advantage in



executing sophisticated sustainability policies, controlling environmental data systems, and change with the emerging nature of ecological issues.

In this context, institutional strength is used to moderate the relationship between the green governance tools and SDG outcomes. Even the best policies would not lead to any significant impact where there is weak bureaucratic capacity, politicization, or a lack of accountability.

### **3.4 Public Administration Theory and Policy Implementation**

The theory of public administration sheds some light on the changes in policies between written promises and action. Classical and modern theories of implementation focus on how administrative discretion, organization routines, and performance management influence the policy outcomes (A. Meijer et al., 2018; Pollitt & Bouckaert, 2004).

The role of the public administration in the sustainability policy in green governance is an operational component of the administration, which involves strategic planning, budgeting, regulation, and delivery of services. The structure identifies three important administrative functions:

1. Policy Integration: incorporating environmental goals in the sectoral policies and development plans.
  2. Regulatory Governance: the implementation of environmental criteria via credible and transparent regulatory systems.
  3. Performance Management: monitoring the progress using indicators that are SDG-related.
- The framework assumes that the administrative coherence and performance incentive is the key to successful policy implementation, which does not contradict the outcomes of sustainability.

### **3.5 Participation, Transparency, and Accountability**

It is also based on the theory of participatory governance and accountability, which, in turn, is concerned with the effectiveness of citizen participation and transparency to enhance the effectiveness and legitimacy of governance (Arnstein, 1969; Fung, 2015; Ostrom, 2010a). The concept of participation is explained as a normative democratic value, as well as the method of design and adhering to better policies.

The hypothesis is that transparency and accountability measures, such as an open data platform, reporting, and social audit, create a new feeling of trust towards the institutions and reduce the implementation gaps (A. Meijer et al., 2018; UNDESA, 2022). The forces of participation and transparency are supporting forces that enhance the administrative responsiveness and regulatory credibility, as they are reflected in the context.

### **3.6 Integrated Framework and Propositions**

Managing to establish the connection between these theoretical strands, the study frames the concept of green governance as a multi-dimensional process that is motivated by public administration. The framework posits that:

- Policy integration: improves consistency between the goals of development and environmental sustainability.
- Institutional capacity: establishes the efficiency of instruments of governance.

- Regulatory enforcement: converts policy promises into behavior change.
- Involvement and responsibility: reinforce legality and obedience.

The connection between green governance and SDG achievement is mediated by the public administration.

Based on this, the framework hypothesizes that those countries that have greater administrative strength and systems of integrated governance would have higher chances of realizing lasting developments in meeting the SDGs.

### 3.7 Analytical Implications

The theoretical approach offers a systematic perspective towards understanding green governance, outside the normative desires. By foregrounding as a central explanatory variable, the focus of analysis is shifted to institutional performance and capacity of performance by ignoring instead of focusing on the policy design. The framework, therefore, allows the evaluation of the role of administrative systems in determining the sustainability impacts in the governance contexts through empirical means.

Figure 1. Theoretical model of interconnection between the concepts of public administration, green administration, and the Sustainable Development Goal (SDG) output.

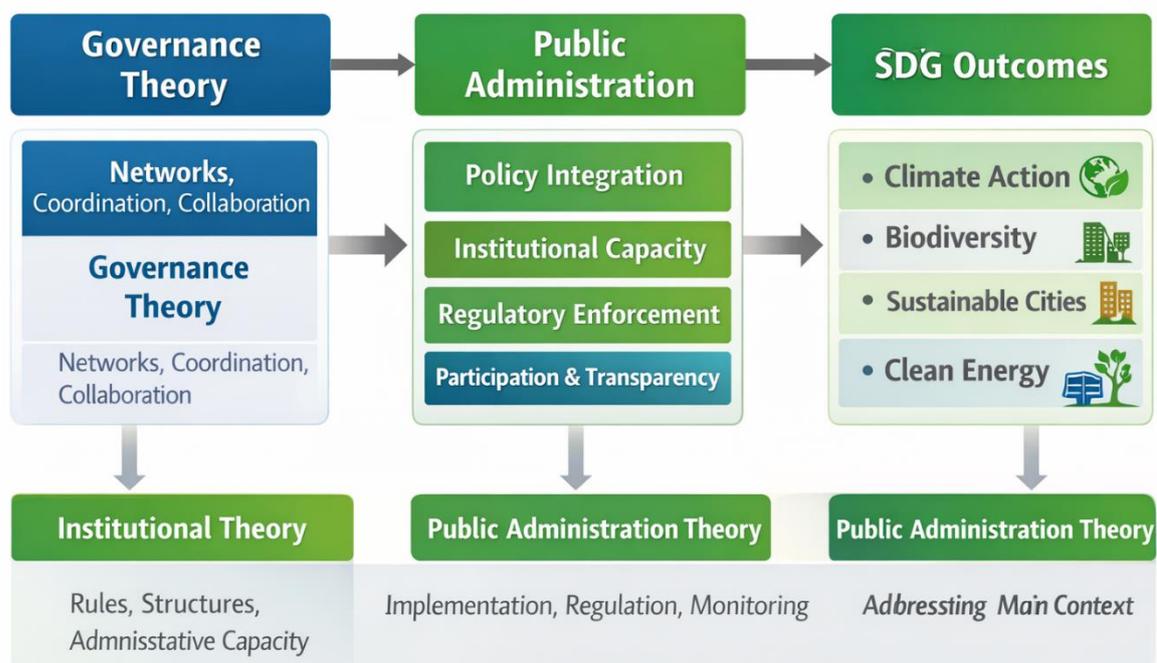


Figure 1 describes a theoretical model of how the theoretical groundwork is converted into sustainability results using public administration. It demonstrates that the concept of the role of governance theory (Ansell & Gash, 2008)(networks, coordination, and collaboration) and the concept of institutional theory (rules, structures, and administrative capacity) (Fukuyama, 2013; North, 1990b) influence the work of the public administration. These theories are applied



to the practice of public administration in four major ways, namely policy integration, institutional capacity, regulatory enforcement, and participation and transparency (Christensen & Lægread, 2011; OECD, 2019; Pollitt & Bouckaert, 2004; UNDESA, 2022). These processes spur the instruments of green governance, which subsequently lead to better SDG results, such as climate action, biodiversity protection, sustainable cities, and clean energy (Nilsson et al., 2016; Sachs et al., 2019; UN, 2015). Public administration, also known as the mediating variable between the theory of governance and sustainable development performance, is made public through the framework (Duita Andreas et al., 2010; A. Meijer et al., 2018).

## **4. Methodology**

### **4.1 Research Design**

The existing study is founded on the systematic literature review (SLR) as the principal research strategy. An SLR is a clear, reproducible, and methodologically clean way of synthesizing extant knowledge by defining the processes of searching, screening, and analyzing academic texts (Denyer & Tranfield, 2009; Petticrew & Roberts, 2006; Snyder, 2019). The design is especially suitable when the interdisciplinary phenomena like green governance and public administration are under study, which brings environmental studies, political science, and public policy together (Denyer & Tranfield, 2009; Xiao & Watson, 2019).

The review is theoretically oriented and attempts to combine theoretical and empirical input to determine the predominant thematic patterns, the mechanisms that govern it, and gaps in the knowledge of the role of the public administration in the advancement of the Sustainable Development Goals (SDGs) (Paul et al., 2021). The review process is based on the main principles of the PRISMA framework that allows maintaining the transparency of the procedures, their consistency, and analytical rigor (Moher et al., 2009; Page et al., 2021).

### **4.2 Data Sources and Search Strategy**

The three most popular academic databases, namely Scopus, Web of Science (WoS), and Google Scholar, were used to conduct the literature search. The databases were chosen because they cover a broad range of peer-reviewed journals and are related to the research topic on governance, public administration, and sustainability (Falagas et al., 2008; Gusenbauer & Haddaway, 2020).

Three academic databases were systematically searched, namely Scopus, Web of Science, and Google Scholar. The search was conducted using predefined Boolean search strings to ensure transparency and reproducibility.

Scopus search string:

TITLE ABS KEY ("green governance" OR "environmental governance") AND TITLE ABS KEY ("public administration" OR bureaucracy OR "administrative capacity") AND TITLE ABS KEY ("sustainable development goals" OR SDGs OR sustainability)

Web of Science search string:

TS = ("green governance" OR "environmental governance") AND TS = ("public administration" OR bureaucracy OR "administrative capacity") AND TS = ("sustainable development goals" OR SDGs OR sustainability)



Google Scholar search string:

("green governance" OR "environmental governance") AND ("public administration" OR bureaucracy OR "administrative capacity") AND ("sustainable development goals" OR SDGs OR sustainability)

The use of Boolean operators AND and OR was used to combine the ideas of governance with the concepts of public administration and terms associated with sustainability. The quote marks were applied to provide phrase-level accuracy. Only seminal theoretical works were selectively included to aid in conceptual grounding, and only English-language publications were searched that were published between 2020 and 2025.

#### **4.3 Inclusion and Exclusion Criteria**

Analytical relevance, methodological rigor, and transparency were ensured using explicit inclusion and exclusion criteria.

They needed to satisfy the following criteria to include studies.

To start with, the article itself showed substantive interest in green governance, which refers to a clear analytical focus on governance mechanisms, administrative structures, institutional capacity, policy integration, or processes within the public sector dealing with environmental sustainability or SDG implementation.

Second, there was an inclusion of both conceptual and empirical studies. The conceptual studies added a theoretical interpretation to governance and public administration, whereas the empirical studies provided case study evidence, comparison, or policy assessment.

Third, the year of publication 2020-2025 was selected to ensure the inclusion of the latest scholarship after the adoption stage of the SDGs process and to incorporate the current changes in governance and administrative innovations and post 2020 sustainability policies.

Fourth, theoretical literature: Seminal theoretical publications before 2020 were included selectively as an exception where they presented foundational concepts to be used in analytical framing e.g., governance theory, institutional theory, and public administration theory.

The following criteria were used to exclude studies.

To begin with, the publications that did not have a distinct dimension of governance or public administration include those that discussed environmental or sustainability results.

Second, non-scholarly articles like opinion pieces, articles in the media, and blog posts.

Third, those studies that concentrated on technical, ecological, or sector-specific environmental concerns without institutional or administrative analysis.

Fourth, multiple records (or naked publications).

Such criteria helped to make sure that the final sample was theoretically deep and empirically relevant and matched the best practice standards of systematic literature review.

#### **4.4 Data Screening and Selection**

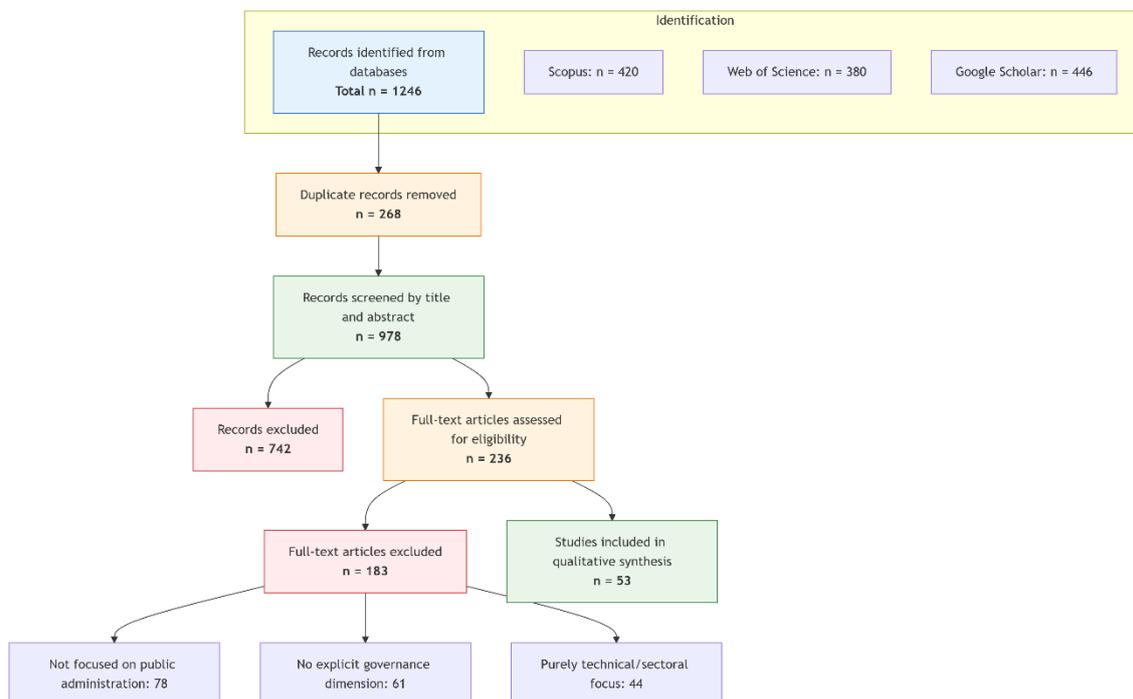
The screening and selection were done in three consecutive steps:

- (1) title screening,
- (2) abstract screening, and
- (3) full-text assessment.

A total of 1246 records were initially identified from Scopus (n = 420), Web of Science (n = 380), and Google Scholar (n = 446). After removing 268 duplicates, 978 records remained for title and abstract screening. Of these, 742 records were excluded for not meeting the inclusion criteria. The full texts of the remaining 236 articles were assessed for eligibility, resulting in a final sample of 53 studies included in the qualitative synthesis.

At the beginning, titles and abstracts were scanned to exclude obviously irrelevant records. After that, the overall contents of potentially eligible studies were compared with the previously stated inclusion criteria. This is a methodological reliability procedure that improves screening and reduces selection bias, as well as increases validity of the review process (Moher et al., 2009; Page et al., 2021).

Figure 2: The PRISMA flow diagram summarizes the identification (n = 1246), screening (n = 978), eligibility (n = 236), and final inclusion (n = 53) stages.



The following PRISMA flow diagram represents the strict and clear process that will be used to identify, screen and select studies to be included in the review. Articles located in Scopus, Web of Science and Google Scholar were filtered systematically with the use of the following steps: duplicate filtering, title and abstract screening, and full-text eligibility. The successive stages reduced the evidence base to the ones satisfying pre-specified inclusion criteria, having a methodological rigor, reproducibility, and the plausibility of the resulting qualitative synthesis.

#### 4.5 Data Analysis Technique

To provide patterns that were recurring in the subject studied, thematic analysis was used to identify and synthesize recurring patterns in green governance and public administration



included in the studies. Development of themes occurred in both inductive and deductive manners. The theoretical code and research goals were used to select deductive codes, especially the ideas of governance theory, institutional theory, and public administration. Inductive coding was subsequently used to obtain emerging insights that had been informed by the reviewed literature, which had not been theoretically determined (Braun & Clarke, 2006; Nowell et al., 2017).

The coding procedure was a structured multi-step one. First, the presence of all the included articles was predetermined by reading them through to the end to be familiarized with the content and context. Second, the first codes were created through the determination of significant units of text in connection to administrative mechanisms, instruments of governance, institutional capacity, participation, and SDG implementation. Third, similar codes were clustered into preliminary themes, which were reviewed and refined so that they had internal coherence and firm conceptual boundaries. Fourth, the final themes were identified and labeled in accordance with the analysis relevance and congruency with the study objectives (Braun & Clarke, 2006).

Theme development and validation were developed by more than a single author to increase analytical rigor and minimize interpretive bias. The first coding and theme identification were done manually, with subsequent review and discussion with the rest of the authors to detect any discrepancies and come to an agreement. This repeated checking procedure enhanced the degree of reliability, and the final thematic framework was regarded as the fairest and most accurate in capturing both the empirical and theoretical data in the literature (Nowell et al., 2017; Thomas & Harden, 2008).

The last thematic synthesis was used to shape the results on five central analytical dimensions, i.e., governance mechanisms, bureaucratic capacity, policy instruments, institutional barriers and best practices. This methodological practice brought about transparency, replication and theoretical coherence in the interpretation of findings.

#### **4.6 Quality Appraisal**

The methodological rigor as well as analytical credibility of included studies in the final synthesis was done as a formal quality appraisal. Because the conceptual, qualitative, quantitative, and mixed methods studies are included, the review utilized the Mixed Methods Appraisal Tool (MMAT 2018 version, which is commonly applied to conduct a systematic review of studies with various research designs (Hong et al., 2018).

The included studies were all appraised through the MMAT criteria as applicable to the methodological category of study. The evaluation of qualitative studies was determined by the suitability of qualitative research, data collection method, consistency of data and interpretations, and analytical process. Quantitative studies were appraised based on the clarity of research questions, the suitability of sampling methods, validity of measurements and strength of statistical analysis. Mixed methods research was evaluated on the level of combination between qualitative and quantitative elements and the consistency of the interpretations provided by the methods (Hong et al., 2018).



Adapted appraisal principles, which are typically utilized in systematic reviews of literature in the field of governance and public administration, were used to evaluate conceptual and theoretical studies. These were criteria of theoretical clarity, logical consistency of arguments, interaction with basic literature, and topicality to the mechanisms of governance and administrative procedures (Denyer & Tranfield, 2009; Snyder, 2019).

The authors were involved in quality appraisal on their own and then deliberated on to achieve consensus, which minimized subjective bias and increased reliability. The exclusion of studies was not done based only on the results of quality appraisal. The appraisal rather served to inform the synthesis process through informing the interpretive weighting of evidence. The results of studies that were identified as methodologically strong were emphasized in the theme development more, and the results of the studies with the known limitations were employed sparingly and to complement certain trends but not form the foundation of the analytical arguments (Petticrew & Roberts, 2006; Xiao & Watson, 2019).

This design provided transparency to the methodology, enhanced the validity of the thematic synthesis and aligned the review to the existing best practice guidelines on systematic literature review in research on governance, sustainability, and public administration.

#### **4.7 Ethical Considerations**

The research has been conducted through secondary data, which is limited to academically published literature. No human subjects, personal information, or experimentation were involved. Thus, it did not need formal ethical approval.

This review has been done in accordance with the established principles of academic integrity. Citations were made to all the sources used; intellectual property rights were under consideration and plagiarism was circumvented along the way of conducting the research. There was a transparent and systematic data selection, analysis, and reporting of data to ensure that the findings were credible and reproducible.

#### **4.8 Limitations**

This review is limited by several limitations, even though it is designed in a systematic and methodologically rigorous manner. First, the limitation to English-language publications could have created the risk of not accounting for other studies published in other languages, thus creating a possible language bias. Second, the use of large bibliographic databases can result in the bias of database coverage because regionally or locally conducted research is less likely to be included in global repositories (Falagas et al., 2008; Gusenbauer & Haddaway, 2020). These restrictions were, however, alleviated partially with the help of various complementary databases and a clear multi-phase screening process, which, combined with each other, helped to increase the scope, quality, and strength of analysis of the review.

### **5. Results and Findings**

Thematic synthesis of the reviewed literature revealed five analytical dimensions that were dominant. These are the themes that reflect on the role of the public administration in green governance and contribute to the implementation of Sustainable Development goals in various governance contexts.



### **5.1 Governance Mechanisms**

In the studies reviewed, to have successful green governance, a coordination system, which involves many levels of coordination, is required in public administration. Indicatively, (Jordan & Lenschow, 2010) report on the successful implementation of interministerial structures of coordination of policies within the European Union member states by the integration of environmental objectives in the transport and energy sectors. Likewise, (Nilsson et al., 2016) also find that national coordination forums between ministries and subnational governments minimized policy trade-offs and maximized SDG congruence.

The empirical studies of the OECD countries also provide an example that sustainability councils and cross-sector task forces facilitated administrative learning and adaptive governance, especially in climate and urban sustainability policies (Meadowcroft & Steurer, 2018; OECD, 2019). These instances underscore the fact that governance mechanisms that are rooted in public administration are important in addressing institutional fragmentation.

### **5.2 Role of Bureaucratic Capacity**

The second theme is the focus on bureaucratic professionalism and administrative capacity in putting the green governance commitments into practice. (Evans & Rauch, 1999) Give evidence of cross-national evidence indicating that strong relations exist between merit-based recruitment and bureaucratic autonomy to successful policy implementation, including environmental regulation. (Fukuyama, 2013) goes ahead to explain that those nations that have had better administrative capacity have recorded better regulatory compliance and environmental performance.

It is also noted that case-based studies show that street-level bureaucrats have immense discretion in dispensing justice as well as service delivery, and this informs the practice of environmental outcomes (Lipsky, 1980; A. J. Meijer et al., 2012). These results prove the fact that administrative quality and capacity are critical mediating variables between policy design and sustainability outcomes.

### **5.3 Policy Instruments**

A combination of regulatory, market-based and informational tools is a characteristic feature of effective green governance as is known in the literature. Indicatively, (Gunningham et al., 1998) demonstrate that the integration of command-and-control regulation and market incentives resulted in more effective environmental outcomes as compared to the use of individual instruments. (Stavins, 2003) records that emissions trading schemes enhanced cost-effectiveness and compliance in the case where the administrative enforcement is credible.

The increased role of digital governance tools is also mentioned in recent studies. According to (UNDESA, 2022), transparency and regulatory oversight in some of the developing countries were reinforced by environmental monitoring systems and open data platforms. These cases prove the existence of results to policy instruments when there are effective administrative structures.



**5.4 Institutional Barriers**

Nevertheless, a series of studies reveal that several institutions have barriers that limit green governance, despite policy innovation. (Howlett, 2019) demonstrates that the existence of sectoral silos in the public administration hinders the integration of policy and undermines sustainability. On the same note, (World Bank, 2021) Data from low and middle-income nations outline the role weak accountability mechanisms and insufficient technical capacity play in the failure of environmental enforcement.

The other common hindrance is political short-termism. (Meadowcroft, 2007; Sachs Jeffrey D. et al., 2023) depict how electoral cycles and rival development agendas usually override long-term environmental goals. Based on these studies, institutional constraints are not technical but structural.

**5.5 Best Practices**

The last theme is the synthesis of the best practices linked to successful green governance. (Nilsson et al., 2016) record the effects of green budgeting and sustainability on the sustainability of assessments on policy coherence in the government sector. Examples of long-term investment in administrative capacity to improve adaptive management and regulatory credibility are given by (OECD, 2019).

Participatory governance also comes out as best practice. (Ostrom, 2010a) shows that shared governance arrangements and citizen engagement augmented legitimacy and obedience in the management of the environment. Also, SDG consistent performance monitoring systems facilitated evidence-based policymaking and organizational learning in the government (Sachs Jeffrey D. et al., 2023; UNDESA, 2022).

Collectively, these examples can be summarized to show that the success of green governance requires coordinated institutions, competent bureaucracies, balanced policy tools, and inclusive governance practices entrenched in the system of public administration.

Table 1: Summary of Thematic Findings on Green Governance and Public Administration

<b>Analytical Dimension</b>	<b>Core Findings</b>	<b>Governance Implications</b>	<b>Key References</b>
Governance Mechanisms	Integrated and multi-level coordination within public administration enhances policy coherence and SDG alignment.	Institutionalize inter-ministerial coordination and cross-sector planning mechanisms.	(Jordan & Lenschow, 2010), (Nilsson et al., 2016), (OECD, 2019)
Bureaucratic Capacity	Merit-based recruitment, administrative autonomy, and technical expertise improve regulatory enforcement and sustainability outcomes.	Strengthen administrative capacity through professional training and accountability systems.	(Evans & Rauch, 1999), (Fukuyama, 2013), A. J. Meijer et al., 2012)



Policy Instruments	Combined use of regulatory, market-based, and informational instruments yields stronger environmental performance.	Apply balanced policy mixes supported by credible enforcement and monitoring.	(Gunningham et al., 1998), (Stavins, 2003), (UNDESA, 2022)
Institutional Barriers	Fragmentation, weak enforcement, limited capacity, and political short-termism hinder green governance.	Reform siloed institutions and protect long-term sustainability objectives.	(Howlett, 2019) (Meadowcroft, 2007) (World Bank, 2021)
Best Practices	Policy integration, participatory governance, capacity building, and SDG-based monitoring enhance legitimacy and learning.	Embed sustainability indicators and citizen participation into administrative systems.	(Nilsson et al., 2016; OECD, 2019; Ostrom, 2010b)

Table 1 synthesizes the key thematic findings of the review by summarizing the key result dimensions of governance, basic results, practical implications, and literature supporting the concept of green governance and its role in relation to the government.

**6. Discussion**

The conclusions of this systematic literature review are highly theoretical and empirical backgrounds to the central role of the public administration in the development of green governance and the accomplishment of the Sustainable Development Goals (SDGs). The established theoretical perspectives of the field of public administration and governance can constructively make sense of the identified themes, governance mechanisms, bureaucratic roles, policy instruments, institutional barriers, and best practices.

**6.1 Governance Mechanisms and Collaborative Governance Theory**

Integrated governance and participatory governance systems are highly prominent in relation to theories of collaborative and network governance, which focus on the horizontal coordination, stakeholder involvement and multi-level policy integration (Ansell & Gash, 2008; SØRENSEN & TORFING, 2009). The argument that policy integration supports the coordination theory of sustainability mainstreaming is evidenced by the fact that fragmented structures of governance deter complex policy objectives like climate action and biodiversity protection (Jordan & Lenschow, 2010; Nilsson et al., 2016). In addition, adaptive governance mechanisms are associated with the institutional learning and resilience theory, emphasizing the significance of feedback loops and experimentation in the environment of uncertainty (Duita Andreas et al., 2010; Folke et al., 2005). Such findings are indicative that green governance is most effective when it is a part of the institutional arrangements that may facilitate coordination, participation, and learning.

**6.2 Role of Bureaucracy and Weberian–Neo-Institutional Perspectives**

The perceived role of bureaucratic professionalism, technical expertise and independence is indicative of fundamental assumptions of the Weberian and neo-institutional theories of the



state, which hold that an administration that is rule-based and merit-based recruitment increases the credibility and effectiveness of policies (Evans & Rauch, 1999; Fukuyama, 2013). The power of bureaucrats at the street-level also supports the theory of street-level bureaucracy by (Lipsky, 1980), which explains the influence that discretionary practices have on the policy outcomes in the real world. This relationship between integrity-based bureaucracies to ensure long-term environmental governance promotes the good governance and quality-of-government theory that identifies impartial administration to improve policy performance and trust by society (ROTHSTEIN & TEORELL, 2008). On the other hand, the pernicious impacts of politicization and patronage are also aligned with the principal-agency theory, which predicts implementation failures where political interference undermines administrative accountability and the incentives (Christensen & Læg Reid, 2011).

### **6.3 Policy Instruments and Instrument Choice Theory**

The policy tools results support the theory of instrument choice and policy mix that states that the application of complex societal issues requires the use of a mix of regulatory, market-based, and informational tools instead of depending on a single type of tool (Gunningham et al., 1998; Howlett, 2019). The rise of the use of digital governance tools is also an indication of new public management and governance contexts of the digital age that emphasize efficiency, monitoring power, and decisions based on data (Dunleavy et al., 2006; UNDESA, 2022). Complementarity between the economic incentives and the regulatory standards is consistent with the ecological modernization theory, which postulates that the mutual support of environmental protection and economic efficiency can be mutually reinforcing with the help of institutional innovation (Bulkeley et al., 2014; Mol & Spaargaren, 2000).

### **6.4 Institutional Barriers and Historical Institutionalism**

The continuity of fractured structures, scanty resources, and ineffective accountability systems creates a sense of the applicability of historical institutionalism, which describes the inhibition of reform by path dependence and established administrative practices. Political short-termism is a manifestation of the temporal governance theory, which draws attention to the lack of correspondence between the timeframes of elections and the long-term goals of sustainability (Meadowcroft, 2007; Sachs Jeffrey D. et al., 2023). These obstacles demonstrate that green governance is not only a technical issue but an institutional and a political one and would mean structural changes and not a change in policies in small steps.

### **6.5 Best Practices and Participatory Governance**

The specified best practices, namely policy integration, capacity building, participatory governance and performance monitoring, theoretically align with the theory of collective action and polycentric governance developed by (Ostrom, 2010a) that focuses on locally entrenched institutions and collective accountability in terms of resource management. Results-based management and performance governance theory that involves the connection of measurable results to institutional learning and accountability is supported by the SDG indicators on performance monitoring (Sachs Jeffrey D. et al., 2023; UNDESA, 2022). Collectively, these



practices reveal that successful green governance is the composite of institutional design, administration capacity as well as engagement with society.

### **6.6 Theoretical Contributions**

This study reconceptualizes green governance as an administrative transformation process rather than merely a sectoral environmental policy instrument. By synthesizing governance, public administration, and sustainability scholarship into a unified analytical framework, the review demonstrates that public administration is not only an implementing agent but a constitutive actor shaping institutional coherence, policy legitimacy, and adaptive capacity. The results carry the collaborative governance theory to the environmental field as they highlight the need of bureaucratic anchoring to the participatory procedures. Additionally, the findings support the institutional theory by demonstrating that the administrative quality serves as an intermediary between environmental policy design and the sustainability outcomes.

### **7. Conclusion**

This is a systematic literature review that explored the influence of public administration on green governance and the implementation of the Sustainable Development Goals. Five recurring dimensions, governance mechanisms, bureaucratic capacity, policy instruments, institutional barriers, and best practices, which were identified through synthesis, explain the variation in sustainability results between governance contexts.

This review is innovative in its approach to seeing green governance as an administrative transformation process and not as a set of sector-specific environmental policies. The current green governance reviews focus mainly on policy formulation, environmental tools, or normative governance principles. The contribution in this review is the fact that administration systems are constitutive agents that facilitate coordination, uphold rules, establish control over performance, and facilitate participation in various domains of policy.

Through a combination of governance theory, institutional theory and public administration scholarship, the review demonstrates that sustainability outcomes are anchored on the approaches of transforming political commitments by the public administrations into routines of operation. The factors of administrative coordination, professional ability, credibility of regulation and monitoring of performance stand out as determinant mediators in the relationship between sustainability aspirations and quantifiable outcomes. Such an administrative prism shifts the discussion from policy will to institutional capacity and implementation.

The results point out that good green governance necessitates administrative reform. Coordination structures are integrated to minimize the aspect of fragmentation. Bureaucracies that are merit-based are stronger in terms of enforcing. The policy mixes are only effective with competent institutions. The participatory and performance-based systems improve legitimacy, learning and accountability. In the absence of these administrative conditions, sustainability commitments are symbolic.

Altogether, the review provides a unique analytical approach, placing the concept of the public administration at the core of green governance and the SDG realization. It gives the conceptual



reorientation of the environment preference focus instead of the administrative one and brings the idea of sustainability advancement much more relevance to this or that context and shows the direction of the future reform.

## **8. Policy Implications**

The results yield many policy implications for governments that want to enhance green governance by reforming their public administrations.

To begin with, formal coordination measures must be given priority to incorporate institutionalized policy integration: inter-ministerial committees, green budgeting structures, and sustainability impact assessments. The integration of environmental goals into sector plans and budgetary procedures can help to minimize the inconsistency of policy and achieve a greater level of consistency among government activities (Jordan & Lenschow, 2010; Nilsson et al., 2016; OECD, 2019).

Second, it requires administrative capacity building in the implementation. The strengthening of regulatory action and adaptive management may be involved in the investments in technical expertise, analytical skills, and digital infrastructure in the sphere of work of the public agencies (Fukuyama, 2013; UNDESA, 2022; World Bank, 2021). Merit-based hiring and lifelong professional development are especially significant when it comes to maintaining institutional competence and restricting the role of politics (Evans & Rauch, 1999).

Third, participatory governance mechanisms would be properly institutionalized in the administrative processes. Increased policy legitimacy, local ownership, and compliance are achieved through the involvement of citizens, local governments, and indigenous communities and civil society organizations (Bulkeley et al., 2014; Ostrom, 2010a). This type of participation must be institutionalized as opposed to being an ad hoc consultation, which ought to guarantee continuity even after a change of electoral cycle.

Fourth, performance-based monitoring systems aligned with SDG indicators should be embraced to support evidence-based policymaking. By incorporating environmental and sustainability indicators in the performance management of the public, this model can enhance accountability, make learning easier, and allow adjusting the policies based on new challenges (Sachs Jeffrey D. et al., 2023; UNDESA, 2022).

Lastly, the reforms in governance must take care of structural hindrances like administrative systems and ineffective accountability mechanisms. The credibility of regulations and the trust of the population would be improved by strengthening the audit institutions, transparency frameworks, and anti-corruption measures that would allow for maintaining long-term environmental commitments (Christensen & Lægheid, 2011; ROTHSTEIN & TEORELL, 2008).

## **9. Directions for Future Research**

Further studies must shift towards the comparative and mixed-methodological empirical research on how the various administrative systems practice green governance through various conceptualizations. This is where longitudinal research is especially required to determine the impact of institutional reforms on the sustainability outcomes that may be determined over time



(Duita Andreas et al., 2010). It is also necessary to pay more attention to subnational governance and Global South settings, where capacity limitations and politics introduce specific implementation tasks (Andrews et al., 2017). A combination of quantitative SDGs indicators and qualitative institutional analysis would also be more effective in terms of comprehending the way in which the public administration can facilitate sustainable development transitions (Blanc, 2015; Sachs Jeffrey D. et al., 2023).

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