

Institutional and Procedural Enablers and Constraints in District-Level Land Use Planning Projects: Evidence from Kohat

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Abstract

Effective land use planning is often constrained by complex governance and fragmented regulatory frameworks. While multi-level governance challenges are well-documented, limited empirical research examines these dynamics at the district level in transitioning institutional systems. This study examines how regulatory frameworks shape land use planning in District Kohat, focusing on the interaction between systemic enablers, institutional constraints, and stakeholder dynamics.

Using a qualitative case study design, semi-structured interviews were conducted with key regulatory stakeholders. Data were analysed using Dey's thematic framework to identify themes related to planning efficiency and coordination. The findings reveal that inefficiencies are systemic rather than merely procedural. While GIS integration and transparency mechanisms act as enablers, their impact is undermined by weak inter-departmental coordination, centralized decision-making, and repetitive approval cycles. The study demonstrates that planning delays emerge from the complex interaction between governance fragmentation and stakeholder influence.

By integrating governance and public-sector project management perspectives, this research explains how institutional arrangements influence planning efficiency at the district level. The results suggest that enhancing planning efficiency requires integrated regulatory systems, stronger technical capacity, and improved coordination mechanisms within district governance contexts.

Keywords: Land Use Planning; Regulatory Frameworks; Stakeholder Dynamics; Institutional Constraints; Planning Efficiency; Public-Sector Project Management

Introduction

Land use planning is a critical part of development processes, especially in situations where the efficient management of land resources is vital for equitable and sustainable development. It offers a formal way of coordinating land use activities and decision-making across multiple levels of administration. However, the effectiveness of land use planning is depends hugely on regulatory

frameworks that govern it. These frameworks define procedures, institutional roles, and approval mechanisms that shape how planning systems operate in practice (Cobbinah, 2017; Hicks, 2018). In multi-level governance, regulatory frameworks may operate within complex bureaucratic frameworks that include several institutions with overlapping responsibilities. The literature suggests such contexts are often characterised by complexity, coordination problems and inefficiencies in planning processes (Juhola, 2016; Rakodi, 2006; Shahzad et al., 2022). Such problems are not simply operational but are tightly bound with institutional arrangements and interactions that affect decision-making and implementation. Consequently, planning systems may face delays, longer decision-making processes and decreased efficiency. From a project management perspective, planning systems operating within public-sector environments are frequently exposed to schedule overruns, coordination failures and institutional complexity because projects involve multiple actors, procedural controls and interdependent approval mechanisms (Wirick, 2009). Similarly, project management literature emphasises that ineffective integration, weak stakeholder coordination and poor communication structures can significantly reduce implementation efficiency and delay project completion (PMI, 2017). Land use planning systems in Pakistan are also embedded within complex institutional arrangements involving multiple institutions at the provincial and district levels. These structures can result in unclear roles, confusing processes and coordination problems, all of which impact planning. A range of stakeholders, with different levels of authority and power, are also involved in planning. Variations in institutional roles and responsibilities, decision-making processes and coordination approaches can influence planning, especially in terms of role clarity and coordination levels. While these are important issues, little empirical research has focused on the operation of regulatory frameworks at district level, particularly in middle-sized districts where institutional systems are still in transition. The majority of research is conducted at a larger scale or in metropolitan regions, so a gap remains in understanding the relationship between institutional settings, decision-making and stakeholder dynamics in the smaller districts. District Kohat offers a suitable setting to explore this. It is an example of multi-institutional involvement and emergent regulatory frameworks, reflecting the multi-faceted nature of land use planning systems.

Research Objectives

This research aims to examine how regulatory frameworks shape land use planning processes at the district level, with specific focus on how systemic enablers and institutional constraints interact with stakeholder dynamics and institutional arrangements to influence planning efficiency, coordination, and decision-making in District Kohat

RO1: To analyse how regulatory frameworks structure land use planning processes at the district level.

RO2: To identify the major systemic enablers and institutional constraints influencing planning efficiency within the regulatory system.

RO3: To examine how stakeholder dynamics and institutional structures influence coordination, decision-making, and delays in land use planning.

Problem Statement

Regulatory frameworks play a crucial role in land use planning systems by regulating processes, roles of institutions and coordination of stakeholders. Yet, in multi-level governance settings like Pakistan, such frameworks function within intricate administrative systems that involve overlapping roles, fragmented institutions, and multi-tiered approval processes. Consequently, the process of planning often suffers setbacks, inefficiencies and lengthy decision-making processes. While the literature

acknowledges that these inefficiencies are related to governance complexity, coordination and bureaucratic processes, there is still a lack of awareness of how these problems play out at the district level, especially in smaller districts where institutional frameworks are in transition. Furthermore, little research has focused on the role of systemic enablers and institutional constraints in regulatory frameworks on planning efficiency. In Kohat, several institutions, unclear approval processes, and imbalanced stakeholder participation results in delays that are not well understood, suggesting a need to better understand regulatory frameworks.

Literature Review

Regulatory Frameworks and Governance in Land Use Planning

Regulatory frameworks form the institutional backbone of land use planning systems, specifying procedural requirements, approval processes, and institutional arrangements among planning authorities at various administrative tiers. Such frameworks are usually embedded in multi-level governance arrangements comprising provincial and district bodies that are responsible for policy development, technical analysis and compliance review (Hicks, 2018; Shahzad et al., 2022). Yet, the literature highlights that inefficiencies in planning are not typically due to individual procedural problems. Instead, they stem from broader governance arrangements that exhibit fragmented authority, overlapping responsibilities and poor co-ordination (Juhola, 2016; Rakodi, 2006; Shahzad et al., 2022). These factors shape the operation of regulatory systems, and often turn formal processes into avenues for inefficiency. Moreover, research in developing and multi-layered governance systems shows that regulatory complexity, especially in multi-stakeholder approval processes, leads to higher administrative costs and longer decision-making processes. Regulatory systems influence planning not only through formal regulatory processes but also through institutional arrangements. Project management scholarship similarly explains that public-sector projects are strongly shaped by governance structures, organizational frameworks and integration mechanisms that determine how institutions coordinate and execute project activities (Wirick, 2009). In such environments, fragmented institutional arrangements and weak process integration often increase project complexity and reduce administrative efficiency.

Regulatory Stakeholders and Institutional Dynamics

Land use planning is regulated by a variety of regulatory stakeholders, including Urban Policy and Planning Unit (UPPU) Provincial Land Use Authority, District Planning institution. Together, these stakeholders shape planning processes through their involvement in policy development, assessment and approval (Cobbinah & Darkwah, 2017; Shahzad et al., 2022). Previous research shows that the performance of these stakeholders is not only linked with their authority but also governance capacity, inter-stakeholder coordination and role clarity. In reality, overlapping responsibilities and uncertain jurisdictional boundaries can lead to overlapping institutional arrangements, which result in inefficient processes and delayed decision-making (Juhola, 2016; Rakodi, 2006). Theoretically, the interactions between stakeholders are determined by power, legitimacy and urgency, which impact on decision-making and coordination (Freeman, 1984; Mitchell et al., 1997). In a hierarchical system, this may lead to a top-down approach, with higher-tier institutions taking the lead in decision-making and district actors playing a more passive role. Regulatory efficiency is affected by institutional dynamics and power dynamics, which impact the effectiveness of stakeholders. Beyond governance theory, project management literature also conceptualizes stakeholders as actors who can influence or be influenced by project outcomes, emphasizing stakeholder engagement, communication management and institutional coordination as critical factors for timely project implementation (PMI, 2017).

Systemic Enablers of Regulatory Performance

The literature identifies several systemic enablers that enhance regulatory performance and improve planning efficiency when effectively institutionalized. Institutional transparency, streamlined approval processes, inter-departmental cooperation, IT integration and resource adequacy are among these (Gebrihet & Pillay, 2022; Liao & Liu, 2023; Rakodi, 2006). Transparency and accountability practices reduce uncertainty through the simplification of procedures and the provision of information about planning, which increases trust and collaboration (Carothers & Brechenmacher, 2014; Gebrihet & Pillay, 2022). Likewise, efficient approval processes and simplistic workflows reduce bureaucratic complexity and speed up processes by removing unnecessary steps (Ibrahim & Kweku, 2018; Hammah, 2015). Inter-agency cooperation also boosts regulatory effectiveness and efficiency through better coordination and integration, while technological integration, such as the use of Geographic Information Systems (GIS) and digital platforms support data sharing and decision-making (Adade & Vries, 2023) (Hammah, 2015). Similarly, human and financial resource allocations are critical to enhance institutional capacity to support planning agencies to undertake technical, and regulatory tasks (Oliveira et al., 2022; Klaus Deininger et al., 2014). Structural enablers only improve planning efficiency if they are well institutionalised and supported by effective governance. Project management literature also identifies integration management, communication systems, stakeholder engagement and resource management as major enablers that improve coordination efficiency and project performance in public-sector environments (PMI, 2017; Wirick, 2009).

Institutional Constraints and Structural Inefficiencies

In addition to enablers, the literature also highlights some institutional constraints, which undermine regulatory efficiency and delay planning. These include bureaucratic complexity, overlapping mandates, lack of technical expertise and poor inter-agency coordination (Liao & Liu, 2023; Klaus Deininger et al., 2014). Bureaucratic complexity, with its multiple levels of approval and hierarchical decision-making, creates administrative complexity and delays approvals. Likewise, overlapping institutions' mandates result in unclear roles and responsibilities, as well as duplicate reviews, which prolongs decision-making (Goodfellow, 2013). Institutional capacity, especially in the form of technical expertise and human resource, limits the capacity of planning institutions to undertake essential tasks such as spatial analysis and regulatory assessment (Chinedu Enoguanbhor et al., 2021). Additionally, inadequate coordination and communication between institutions lead to disjointed processes, inconsistent decision-making and extended approval processes (Liao & Liu, 2023). Institutional limitations are an integral part of governance frameworks, leading to inefficiencies and delays being systemic. Similarly, public-sector project management studies associate implementation delays with weak institutional integration, insufficient technical capacity, ineffective communication structures and poor schedule control mechanisms, particularly within bureaucratic governance systems characterized by multiple approval layers and fragmented responsibilities (Wirick, 2009; PMI, 2017).

Coordination Failures, Power Imbalances, and Process-Level Challenges

The literature also stresses that coordination and power dynamics among stakeholders play a crucial role in planning efficiency. In multi-level governance, decision-making power is often vested at higher levels of the institutional hierarchy, with district-level actors having little power despite implementing decisions role (Freeman, 1984; Mitchell et al., 1997). This limits responsiveness and coordination, as planning is centralised and less responsive to local needs. Lack of communication

between departments and existing mechanisms for institutional coordination, also lead to sequential, rather than collaborative, processes, which drive process delays and inefficiencies (Klaus Deininger et al., 2014). Such issues are especially acute in mid-sized districts where governance mechanisms are still in transition and coordination mechanisms are evolving. Insufficient coordination and power imbalances underpin institutional inefficiencies and slow down planning. Planning outcomes are influenced by the balance among enabling, and constraining factors within regulatory contexts. Strategic management literature further suggests that organizational performance depends on the ability of institutions to align stakeholder interests, coordinate resources and respond effectively to changing operational conditions (Freeman et al., 2010). In fragmented governance settings, weak strategic integration and limited collaborative decision-making reduce institutional responsiveness and reinforce procedural inefficiencies. Collectively, the literature indicates that planning delays are rarely caused by isolated procedural problems; rather, they emerge from the interaction between governance complexity, stakeholder dynamics, institutional coordination and structural capacity limitations within regulatory systems. Although previous studies have examined governance complexity, stakeholder coordination and institutional inefficiencies in planning systems, limited research has explored how these factors interact simultaneously within district-level regulatory frameworks in transitional governance contexts. Existing literature largely focuses either on governance and institutional dimensions or on project implementation processes separately, with limited integration between regulatory planning literature and public-sector project management perspectives. Consequently, there remains insufficient empirical understanding of how systemic enablers, institutional constraints and stakeholder dynamics collectively shape planning efficiency and delays in mid-sized districts such as Kohat.

Conceptual Framework

Conceptual framework describes the variables under investigation, and how they interact to influence regulatory efficiency of the planning process. It offers a framework to understand the interactions between stakeholders, institutions, and the system as a whole in land use planning. In this study, we adopt two theories: Stakeholder Theory and the Stakeholder Salience Model. These theories offer a basis for understanding stakeholder, institutional and governance dynamics within regulatory systems. Stakeholder Theory, originally proposed by Freeman (1984) and refined by recent research (Freeman et al., 2010; Awa et al., 2024) views organisations as relationships between a variety of actors who can influence or be influenced by the organisation's processes. It stresses that management involves recognising, co-ordinating and aligning these relationships to deliver value and meet organisational goals. In the context of governance and urban planning, stakeholder theory underscores that institutional processes involve interactions between various actors, such as government planning agencies, regulatory bodies and administration agencies. They play a role in decision-making processes through their institutional roles, responsibilities and relationships within government systems. The success of planning systems therefore hinges on the effectiveness of these relationships. Effective coordination and defined roles of stakeholders facilitate efficient institutional processes; however, lack of coordination and role clarity results in inefficiencies and delays. More recent literature also highlights that stakeholder relationships interact with complex socio-institutional settings that are characterised by interdependence, conflict and changing stakeholder expectations. This suggests a need for coordination, collaboration and integration in multi-level approaches to governance such as land use planning, where multiple institutions overlap and affect regulatory processes. To explain differences in stakeholder influence, this study adopts the Stakeholder Salience Model proposed by Mitchell, Agle, and Wood (1997) and further examined in subsequent research (Wood et al., 2018; Ali et al., 2024). The model highlights three attributes power,

legitimacy and urgency as attributes that make stakeholders important for decision-making. These attributes help to determine why some stakeholders have more influence over regulatory processes than others. Power is the capacity of stakeholders to influence outcomes, whereas legitimacy is the degree to which stakeholders are seen as having institutional and legal authority. Urgency captures the urgency of stakeholder claims, especially in urgent decision-making situations. Stakeholder salience is determined by the combination of these attributes and affects the prioritization of decisions in governance processes. The latest developments in the salience model indicate that these attributes are not binary, but rather exist on a spectrum, which facilitates different forms and degrees of stakeholder influence in various policy settings. This nuanced view improves the model's analytical power by recognising the context-specific and dynamic nature of influence in governance systems. In land use planning, variations in power and legitimacy lead to centralised decision-making, with "higher" institutions exerting greater regulatory influence, while "lower" district actors are less influential. Conversely, the lack of institutionalized urgency leads to delays as planning processes lack institutionalised responsiveness and urgency.

Methodology

Research Philosophy

Research philosophy offers the underlying framework for knowledge creation and interpretation in a research project. It relates to the worldviews about the nature of reality and how this reality can be studied (Creswell et al., 2018). For this study, which explores systemic enablers and institutional constraints in regulatory frameworks, the research philosophy is qualitative interpretivist. The interpretivist philosophy considers that social reality is not objective or fixed but is socially constructed through the activities, practices, and perceptions of stakeholders (Denzin et al., 2011; Creswell et al., 2018). In land use planning systems, coordination, approval, and decision-making processes are guided by institutional roles, governance arrangements, and inter-organizational dynamics, rather than purely technical processes. As a result, planning delays are conceptualised as socially constructed phenomena that result from institutional and stakeholder interactions. This epistemological stance is well suited to the study of district-level planning in Kohat, where regulatory procedures are interwoven with multiple stakeholders and hierarchical and inter-dependent governance arrangements. The interpretivist approach allows the research to examine the perceptions, interpretations, and reactions of different stakeholders to planning processes, and therefore, gain a better insight into the role of systemic enablers and institutional constraints in planning efficiency. This approach allows us to explore the operation of regulatory processes through participants' perceptions. It enables the study to go beyond simplistic accounts and explore the intricacies of institutional interactions that underpin planning.

Research Approach

Selecting the appropriate research approach is important to guide the overall direction of the research and ensuring alignment with its objectives. For this study, an exploratory qualitative approach is used to explore the emergence of systemic enablers and institutional constraints of the regulatory framework for land use planning. Exploratory research is especially appropriate in research contexts where there is little structured evidence available and where the goal is not to test hypotheses, but to better understand complex processes (Creswell et al., 2018; Patton, 2002). Thus, this research aims to provide contextual knowledge about the influence of institutional arrangements, stakeholder coordination and decision-making on planning outcomes within district-level regulatory processes. This approach allows for the recognition of patterns of regulatory deficiencies, coordination, and enabling factors in the planning system. It is particularly suitable for land use planning processes,

which are dynamic and involve multiple stakeholders at various institutional levels. This calls for an interpretive approach that is flexible enough to capture processes, interactions and variations in contexts rather than standardized measurements.

Research Design

Research design is the overall approach that defines how data are collected, interpreted and analysed to meet the objectives of the study. This study uses a single case study design, which is qualitative in nature, to explore the Land Use Planning Project of District Kohat (Khyber Pakhtunkhwa). A case study design is suitable for investigating complex phenomena in their natural settings, particularly when the boundaries between the phenomenon and context are not clear (Yin, 2018). In land use planning, the roles of stakeholders, the regulatory processes and the governance structure are intimately linked, making a case study design appropriate to understand these dynamics. Kohat has been chosen as a single case study because it serves as an analytical case with a medium-sized district facing delays in the planning and approval process. The district is characterised by a nested governance structure, comprising both provincial and district-level institutions, and is thus suitable to explore the operation of regulatory regimes across levels of government. This makes it possible to examine the role of coordination, institutional roles and processes in planning outcomes. Moreover, the case study design of the qualitative study allows for an in-depth analysis of enablers and constraints of the planning system. Through the attention to a defined institutional setting, a holistic assessment of the interactions and influence on planning efficiency is offered. The focus on in-depth rather than breadth is in line with qualitative research paradigms, which permit a detailed examination of regulatory processes and interactions (Creswell et al., 2018).

Data Collection

Data were gathered through semi-structured interviews with regulatory stakeholders in Kohat's land use planning process. This approach was chosen because it could provide in-depth information about institutional arrangements, coordination and interactions among stakeholders in the regulatory framework. The semi-structured approach enabled participants to share their experiences of planning procedures, approval processes, institutional challenges, and also allowed for the examination of factors that support or complicate planning activities. The interviews were conducted over two weeks in December 2025 for a duration of 25-31 minutes each. The interviews were complemented with review of secondary data, such as institutional documents and records, where available, in order to provide context and to cross-check information on institutional processes and performance.

Sampling

A purposive heterogeneous sampling approach was used to ensure a sample representative of different institutional roles in the planning process. Selection criteria focused on identifying participants involved in planning, coordination and approval processes, ensuring representation of a full spectrum of views on regulatory processes. The total sample included 12 participants, ranging from provincial planners to GIS experts, administrative officers, finance officers and district officials. This was crucial for examining the impact of systemic enablers and institutional constraints from various governance and institutional perspectives.

Table 3-1: Summary of 12 purposively selected participants representing diverse administrative levels in UPPU and Kohat District Case study.

Code	Designation / Role	Institution / Department
P1	Spatial Planners	PLUP,UPPU, Peshawar
P2	Deputy Executive Director	UPPU, Peshawar
P3	Deputy Manager GIS	PLUP,UPPU, Peshawar
P4	Architect	UPPU, Peshawar
P5	Assistant Manager Account & Finance	PLUP,UPPU, Peshawar
P6	GIS Cartographer	PLUP,UPPU, Peshawar
P7	GIS Specialist	UPPU, Peshawar
P8	Assistant Manager Admin	PLUP,UPPU, Peshawar
P9	Statistical Investigator	PLUP,UPPU, Peshawar
P10	Senior Research Analyst	PLUP,UPPU, Peshawar
P11	Statistical Investigator	PLUP,UPPU, Peshawar
P12	Project Manager	PLUP,UPPU, Peshawar

Data Analysis Strategy

The data analysis was conducted using a thematic analysis approach grounded in the qualitative framework of Ian Dey (1993), which emphasizes an iterative process of describing, classifying, and connecting qualitative data. This approach aligns with the interpretivist orientation of the study, enabling an in-depth understanding of institutional processes, stakeholder interactions, and planning dynamics within the Kohat land use planning system. The analysis followed six interconnected phases creating categories, assigning categories, splitting, splicing, linking, and development applied iteratively across multiple coding cycles rather than as a strictly linear sequence. Initially, categories were inductively developed through repeated engagement with interview transcripts, where meaningful units (data bits) were identified and labelled to reflect participants' experiences. These categories were then applied to the data through line-by-line coding, allowing for organisation and comparison of stakeholder viewpoints. Then the categories were refined via splitting, where categories were broken down to address the variability within institutional dynamics and stakeholder perceptions. This was followed by splicing, where subcategories were grouped together. This was followed by linking, and connecting, where connections were explored between categories to identify patterns of institutional arrangements, coordination and decision-making. Finally, categories and their interactions were integrated, and abstracted into higher-level themes, resulting in an evidence-based analytical narrative of how institutional processes, and stakeholder relationships affect the planning outcomes within the regulatory context.

Data Displays

Data displays are an important part of qualitative analysis, as they allow the systematic organisation and presentation of data to enhance interpretation and meaning development. Data displays condense and organise large qualitative data sets, enabling researchers to synthesise, compare and interpret information to draw insights (Matthew B. Miles et al., 2014; Johnny Saldaña, 2016). In qualitative research, data displays are needed to increase transparency and facilitate rigorous analysis. In the present research, data were displayed in two formats: thematic tables and network diagrams. These

presentations were used at the end of each analysis section related to the research questions to improve their clarity, transparency and rigor.

Thematic Tables

Thematic table was incorporated as secondary data displays to analyse qualitative data. Thematic table was used as the main display, which organizes the coded data into levels of split codes, spliced categories and the final themes. The structure of this display mirrors the analysis process and allows readers to see how the data were interpreted from lower- to higher-level constructs, thus promoting transparency and rigor (Dey I. , 2024). The table groups similar codes and identifies patterns across stakeholder responses and facilitates comparative analysis, in line with the tradition of qualitative data display (Patton, 2002)

Network Diagrams

In addition to the tabular display, a thematic network diagram was used to diagram relationships between categories and themes. Unlike tables that focus on classification, these diagrams show relationships and interconnections, aiding the subsequent analytical steps of linking and interpretation. This displays a comprehensive view of how categories interact to create themes and unveils complex patterns and interconnectedness of the data (Miles et al., 2014). These data displays add clarity, simplicity and more directly link the data to the thematic outcomes.

Ethical Considerations

Ethical integrity is a principle requirement of qualitative research, ensuring the protection of participants' right, dignity and well-being throughout the research process (Yvonna S. Lincoln et al., 1985). Ethical considerations were maintained throughout the research process to ensure credibility and integrity. Consent to participate was sought and obtained before interviews, with the understanding that participants could withdraw from the study at any time. Anonymity was maintained by removing any identifying information and referring to participants as pseudonyms. This was especially important in this study, given its sensitive nature and the inclusion of stakeholders involved in government planning.

Findings

Systemic Enablers and Institutional Constraints within Kohat Land Use Planning Project Regulatory Framework

According to the qualitative analysis of interview data, 17 split codes obtained and integrated into 7 spliced categories. These spliced categories reflect the principal systemic enablers and institutional constraints inherent in the regulatory system, which determine the constraints, enablers, efficiency, coordination, transparency, and timeliness of land use planning in Kohat. They explain how the procedural arrangements (approval pathways and committee cycles) and capacity conditions (technical staffing, finance resources, and digital tools) interact with stakeholder roles, coordination, and accountability mechanisms, and how these interactions either facilitate planning progress or lead to delays at various stages of the planning process. To enhance clarity in the analysis chapter, the spliced categories are presented below in thematic order, including:

- GIS as a Core Decisions Tool
- Procedural Ambiguity and Multi-Stage Approval
- Repetitive Technical Committee Reviews and Rigid Timelines
- Extensive TOR and Lack of In-House Planning

- Inter-Departmental Coordination Gaps
- Weak Transparency and Limited Accountability
- Shortage of Technical Planning Staff

GIS as Core Decision Tool

Participants consistently conceived digital tools in particular Geographic Information Systems (GIS) as the cornerstone of the analysis infrastructure according to which the decisions to plan the land use in Kohat are made, checked, interpreted and coordinated. GIS was found to be the most important mechanism that connects the raw spatial information to planning judgement to facilitate evidence-based zoning to enhance technical plausibility and reduce the time and uncertainty of the manual and disjointed decision process. Some participants articulated this role by describing that:

“GIS works as a decision-support system. We take data, extract information from it and based on that information we make planning decisions, leading to a more justified land use plan” (P1,P3,P6,P7).

In this discussion, it has been shown that decision making in planning is not done based on intuition or ad hoc basis but is rather done analytically using structured spatial processing. The focus of the justified decision underlines the regulatory importance of the ability to justify the zoning plans and land divisions in front of technical committees and approval bodies. One more piece of information, which supported this observation, was the words of other participants who emphasized that credibility of zoning lies in the systematic mapping and combining the data of surveys, stating that:

“For any type of zoning or planning it is mandatory to map the area and properly survey it and after that make decisions on the basis of the survey and the data we collected.” (P9,P11,P2).

Combined, these descriptions reveal that GIS has the benefit of spatial specification and an evidentiary basis that enhances the rationality and defensibility of regulatory planning decisions

Procedural Ambiguity and Multi-Stage Approval

One of the issues that were raised with a high level of concern by the participants was that there was limited clarity and complexity in the approval process. According to the perspective of Deputy Manager, Technical Planners, they described the approval pathway as vague, difficult to follow, which led to confusion and delays. They emphasized that such ambiguity is not a single phenomenon, but a general trend in various districts. As they noted,

“The main issue in the land use planning process is the lack of clarity in the approval process, which applies to both Kohat and Bannu.” (P3,P5 ,P1).

The above statement implies that delay cannot be removed without involving the system itself in which there is lack of procedural clarity and stakeholders feel like they work without a full streamlined approval map. In addition, the lack of a well-structured approval forum in the earlier periods was also identified as a major procedural barrier. According to assistant manager and project manager,

“The lack of a well-defined approval forum was a significant procedural obstacle in place before the enactment of the Provincial Land Use and Building Control Act, 2021, and led to delays because of the institutional ambiguity related to it.” (P12,P5).

In this regard, the ambiguity implied not just the slowness in the movement of the files but also the

unpredictability on which side the final decision would be approved. Although, the same respondents described that institutional reform introduced a clearer approving body mentioning that

“After the Act, the Provincial Land Use and Building Control Authority was established as the approving authority, which has streamlined the approval process.” (P5,P12).

This indicates that while the process remains lengthy the existing of a formal approval authority can decrease institutional confusion and provide a clearer route for decision-making.

Repetitive Technical Review and Rigid Committee Timelines

Together with long procedure, a repetition of committee-based review cycle was identified as a source of delay. The respondents wrote that the technical committee mechanism, although it is intended to provide quality and accountability usually leads to a cycle of repetitive reviews, deferrals and re-submission, stretching the time frames repetitive cycles of review. Some participants described the process in an institutionally rigid manner, noting,

“When a consultant provides a report, we check and review it and the Technical Committee accepts it. In case the report does not contain enough data it is returned and re-submitted once revised by the consultant, the process repeats itself and consumes a lot of time.” (P4,P1,P3).

In this quote, the participants puts across the fact that compliance and procedural correctness may lead to repetitive loops instead of consistent development. Likewise, a GIS specialist and Senior Research Officer said that verification itself becomes repetitious due to reports being re-submitted a several time to be corrected and checked again;

“On receiving a land use document we first verify it and later the document is send back to the technical committee where the comments comes again sent back to us to be re-verified.

This is a time consuming process that delays.” (P7,P11).

The repetition highlighted here indicates that the delay is fueled by a cycle of re-do work whereby quality of documentation, technical gaps and committee feedback are the triggers of series of procedural cycles.

Extensive TOR and Lack of In-House Planning

Interviewees also associated delays with the breadth and scope of Terms of Reference (TORs) and lack of in house or internal planning systems. The description of the TORs was that they are comprehensive and that they entail wide technical inputs and contributions of various departments that of course prolongs the schedule. Some respondents mentioned vividly that,

“The main reason for delay is the large scope of the Terms of Reference (TORs). The TORs are extensive and could take several years to complete” (P10,P4,P7,P5).

This term implies that delay does not just relate to inefficiency but also the scale of what the planning process requires. On the same note, it was also noted that there are difficulties when external departments, which results in the jurisdictional pushback and a series of clarifications, do not transparently perceive the TOR requirements. Some others described,

“Usually our TORs are updated and when the authorities letters are send to departments the requirements are not vivid to them. Certain departments reply that they do not have some of these tasks in their mandate that leads to redundant clarifications and delays.” (P9,P2).

This is an indication of the combination of unclear scope and unclear jurisdiction to create a recurring correspondence and slower coordination.

Inter-Departmental Coordination Gaps

In addition to the complexity of the procedure, respondents noted that there was poor interdepartmental coordination. A number of respondents indicated the planning system as fragmented, where departments operate solely and the range of collaboration is so low. GIS managers told us that the plan is designed in one environment and implementation in other environments leading to disconnection:

“The plan is designed in solitude at Planning and Development Department PLDD, and execution elsewhere.” (P3,P7).

The same respondents emphasized more that internal coordination is weak expressing,

“Everybody is doing their job in isolation they treat it like ordinary tasks so the main purpose technical discussion technical verification none of that happens.” (P3,P7).

This above statements suggests that institutional fragmentation reduces collective ownership and slows approvals because decisions and technical problems are not solved collaboratively. Similarly, a senior official accepted the presence of administrative barriers, referring widely to “administrative issues” as part of the delays landscape (P2).. Supporting this, some other respondents directly linked delays to lack of coordination among institutions, mentioning,

“Also significant factors in delays are coordination among departments and approvals of one institution to another.” (P4,P3,P6).

Such description portrays that the delays are typically emerged by inter-departmental dependencies where the advancement requires collaboration, response and common ownership provisions that are not sustainably fulfilled.

Weak transparency and Limited Accountability

Although the focus on transparency mechanisms compared perceptions extraction that reflected flaws in practice implementation and accountability. Two of the respondents gave an analytical point of view where transparency and accountability remain weak in the planning and approval culture of Kohat especially in areas where powerful interests influence land decisions. As noted:

“Transparency and accountability are weak in the land use planning and approval process in Kohat approvals have been approved to powerful developers even when the planning was not officially accepted development continues through NOCs and informal permissions and violations are not effectively stopped.” (P3,P5).

This story shows how formal process may be compromised through selective implementation and informal authorization, deteriorating the initial planning goals, particularly, the ones meant to preserve agricultural land. Moreover, the same respondents directly related weak accountability to poor control over violations pointing that,

“The absence of transparent decision making and poor accountability also effectively prevents violations since they can be selectively enforced.” (P3,P5).

This means that it is not just a procedural delay issue, but a governmental weakness, where execution becomes inefficient and the planning power is undermined by non-formal decision-making.

Shortage of Technical Planning Staff

The human resource constraints was always identified by the participants as one of the most critical structural reasons behind delays in land use planning. These limitations were not restricted to numerical scarcity but extended to jump gaps, absence of multidisciplinary skills and uneven distribution of capacities between provincial and district levels. In the perspectives of the planners who are based in the provincial level, the un-matched nature of the workload and staff capacity was attributed to be extreme. One spatial planner demonstrated the scale of the problem by noting:

“We are three planners in this office. We make plan for 36 districts of (KPK).”(P1)

The above sentences indicate the way planning responsibilities are concentrated in a very few professionals such that timely and detailed production of plans has proved to be practically unmanageable. Similarly, the insufficiency of technical planners was often underscored by the other participants, whereby they would compare the current levels of staffing to the institute-based needs. Finance officer and Spatial Planner clarified this imbalance by asserting:

“We would wish at least that we have 8 and 10 town planners, but unfortunately there are 3 town planners instead of at least minimum 10.” (P1,P5)

This highlighted the fact that the problem is well-known within the organization, yet remains unresolved, thus leaving the companies with chronic overload and underdeveloped development. Proving this point, some other planners noted that this shortage does not lie within a single level of management, citing:

“There is huge shortage of technical staff, whether you see my department (provincial authority) or district level authorities.” (P1,P8)

Collectively, these reactions provide recommendations that staffing deficiencies are not unsystematic. Beyond numerical shortages, the respondents have also consolidated that land use planning needs a wide set of specialized capabilities that are essentially non-existent in current institutional arrangements.

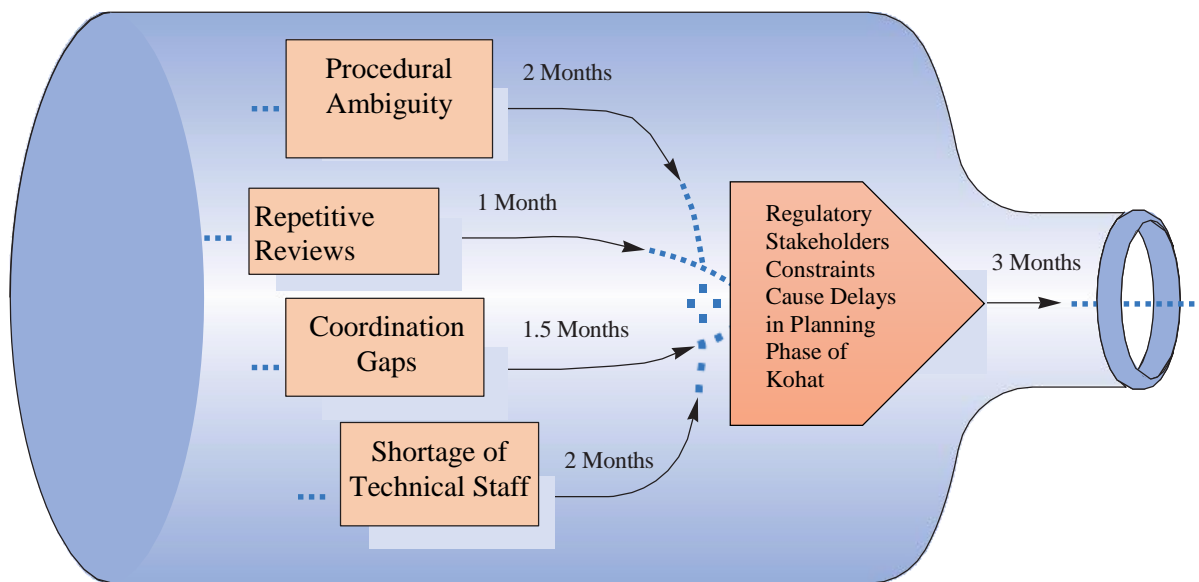


Figure 4-1: Regulatory Stakeholders Constraints Bottleneck in the Land Use Planning Process Adapted from Operations Management (13th ed.) by (Stevenson, 2021).

Figure 4.1 This bottleneck model illustrates the dominant institutional and procedural constraints identified through the quantification of content analysis. The analysis revealed that procedural ambiguity, repetitive review cycles, inter-departmental coordination gaps, and shortage of technical staff collectively function as interconnected bottlenecks within the land use planning process of Kohat. These constraints slow the movement of planning proposals through different regulatory and technical stages, ultimately contributing to delays in approvals and implementation. The numerical values presented inside the bottle represent the estimated duration in months consumed by each dominant constraint during the planning phase. These figures indicate the additional time absorbed by procedural ambiguity, repetitive reviews, coordination gaps, and technical staff shortages throughout the regulatory process. In contrast, the value presented at the neck of the bottle represents the officially expected or allocated completion time for the planning phase. The model demonstrates that because of the cumulative effect of these dominant constraints, the planning process exceeded the designated completion timeline. As a result, the planning phase experienced substantial delays, showing how multiple institutional bottlenecks collectively restricted the smooth flow of regulatory planning activities and delayed timely project completion in Kohat.

Table 4-1 Thematic Analysis of (Systemic Enablers and Institutional Constraints within the Regulatory Framework)

Split Codes	Spliced Categories	Final Theme
GIS As Decision Support and Spatial Clarity Tool	GIS as a Core Decision Tool	Systemic Enablers and Institutional Constraints within Kohat Land Use Planning Projects Regulatory Framework
GIS Land Classification And Zoning		
Limited Clarity of Approval Process	Procedural Ambiguity and Multi-Stage Approval	
Absence Of Approval Forum		
Long Term Planning Process		
Strict Mandatory Timeline	Repetitive Technical Review and Rigid Committee Timelines	
Repeated Technical Review And Reverification Delays		
Extensive TOR Scope	Extensive TOR and Lack of In-House Planning	
Unclear TORs And Departmental Jurisdiction Conflicts		
Isolated Plan Development	Inter-Departmental Coordination Gaps	
Lack of Inter Departmental Coordination		
Outdated And Inaccessible Departmental Data		
Lack of Transparent Decision Making	Weak Transparency and Limited Accountability	
Weak Accountability		
Provincial Staffing Shortage	Shortage of Technical Planning Staff	
Imbalance in Required vs. Available Staff		
Technical Staff Shortage Across Departments		

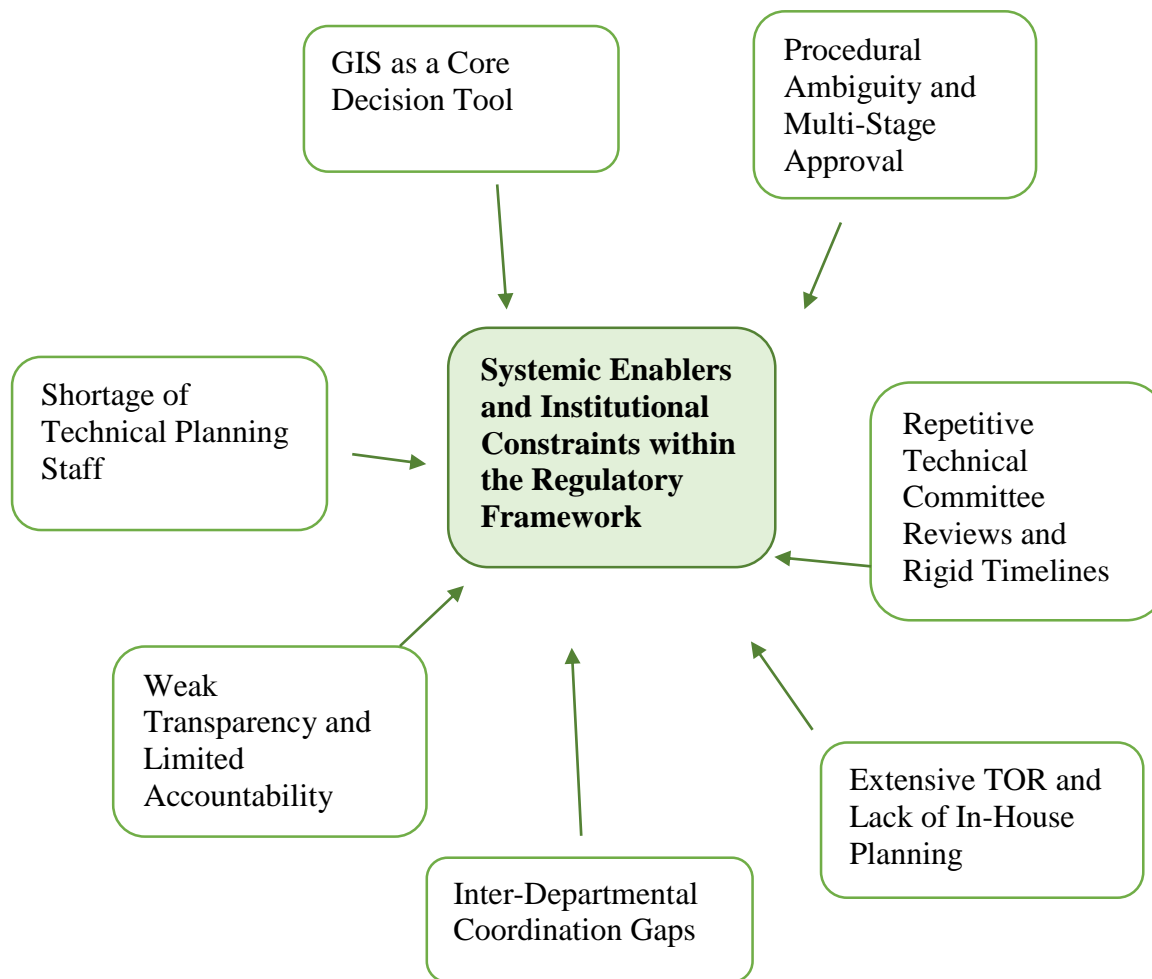


Figure 4-2: Thematic Analysis Network Diagram

Discussions and Conclusion

Discussion

This study's findings show that land use planning delays are not caused by individual procedural inefficiencies, but are systemically embedded within the regulatory system through the interaction of governance structure, stakeholder relations and institutional capacity. This finding reinforces research that suggests that inefficiencies in planning are attributed to lack of clarity on responsibilities, overlapping roles and lack of coordination rather than operational inefficiencies (Juhola, 2016; Rakodi, 2006; Shahzad et al., 2022). However, this study extends this by demonstrating how these structural factors interact in a district-scale context to create compounding and snowballing delays within the planning process.

Procedural Complexity and Institutional Structure: The research shows that unclear procedures, multiple-tiered approval processes and lengthy Terms of Reference (TORs) play a critical role in delays. These findings align with previous research which sees bureaucratic complexity and multi-stage approval processes as major inefficiencies (Goodfellow, 2013; Liao & Liu, 2023). Yet, the

research also shows that procedural ambiguity is only a concern when it is coupled with unclear institutional arrangements and coordination. In Kohat, the lack of clarity in approval processes and dynamic institutional arrangements lead to uncertainty, resulting in multiple verification rounds, re-submissions and delays. This reinforces the view that regulatory schemes influence outcomes not only through formal rules but also through institutional design and implementation (Cobbinah & Darkwah, 2017; Hicks, 2018). Theoretically, this reflects R. Edward Freeman's Stakeholder Theory, where inefficiencies are caused by misalignment among the stakeholders. Uncertain procedures obstruct this, leading to sequential rather than concurrent decision-making.

Stakeholder Dynamics, Coordination Failure, and Power Imbalance:

This research highlights that planning is influenced by unequal stakeholder influence, lack of coordination and limited inter-departmental coordination. These findings align with literature which stresses multi-level governance systems are prone to coordination failures and centralisation of decision-making, which slow down processes (Klaus Deininger et al., 2014; Liao & Liu, 2023). Empirical evidence from Kohat reveals that departments work in silos, producing fragmented work flows and revisions. This finding supports claims that coordination failure turns planning into a series of discrete steps rather than an integrated process and leads to delays (Rakodi, 2006; Juhola, 2016). Yet, this research builds on previous work by showing that coordination failure pushes problem-solving to the later stages, leading to repeated technical reviews and delays. Interpreted through Mitchell, Agle and Wood Stakeholder Salience Model, this reflects the unequal distribution of power and legitimacy between provincial stakeholders, who are able to influence decisions, and district stakeholders, who have little influence. Further, the study suggests urgency is not institutionalised, resulting in variable responsiveness. This adds to the model by demonstrating that the lack of institutionalised urgency contributes to delays, even under conditions of clear power dynamics.

Systemic Enablers, Institutional Constraints, and Integrated Explanation:

This study also shows that enablers such as GIS, transparency and structured processes contribute to systemic enablers, while limited capacity, accountability and staffing contribute to institutional constraints. These findings are consistent with existing research about the role of digital integration, transparency mechanisms, and institutional capacity in facilitating regulatory performance (Gebrihet & Pillay, 2022; Oliveira et al., 2022). However, the research shows that these factors are not stand-alone but constrained by institutional factors. For example, GIS supports evidence-based decision-making, but its application is restricted by a lack of data integration, coordination and capacity. Likewise, despite being designed to enhance governance, mechanisms of transparency and accountability add to delays through multiple reviews and processes. This is an example of the governance paradox, where vehicles that increase efficiency also increase red tape. Meanwhile, capacity limitations, especially the lack of technical staff, compound structural inefficiencies through delays in planning activities, loss of coordination and increased reliance on external stakeholders. This finding is consistent with studies on the importance of institutional capacity on governance performance (Chinedu Enoguanbhor et al., 2021), but further shows how capacity constraints compound procedural complexity rather than simply affecting tasks. Taken together, the results show that planning delays result from the interplay of procedural complexity, power imbalance between stakeholders, coordination fragmentation, selective accountability and capacity constraints. This adds to a systemic view of governance, in which inefficiencies are institutionalised, rather than attributable to any single individual. The identified bottleneck in the planning process is the result of the interaction of these constraints, where delays occur at the point where regulatory processes, stakeholder interactions and institutional constraints converge.

Conclusion

This study analysed the influence of regulatory frameworks on the process of district level land use

planning, using Kohat as a case study to understand the effect of systemic enablers and institutional constraints on planning processes. This research shows that delays in planning are not isolated procedural problems but are structurally embedded within governance systems that feature fragmented institutional structures, multiple approval procedures and asymmetrical stakeholder power dynamics. Procedural, stakeholder and institutional capacity mechanisms are not independent of each other but rather co-evolve in the planning process. While factors such as (GIS), transparency measures and procedural formalisation are systemic enablers that facilitate evidence-based planning and regulatory legitimacy, they are limited by poor coordination, centralised power structures and lack of technical expertise. Consequently, the enablers function in a system that also yields delays. The research adds to the current body of knowledge by framing planning inefficiencies as systemic rather than procedural, and by showing that delays result from the interaction between governance design, stakeholder power relations and institutional capacity. The research also draws on Stakeholder Theory, and Stakeholder Salience Model to pinpoint how unequal power and legitimacy, and a lack of institutional urgency, affect the decision-making process and contribute to planning inefficiencies. In general, the research suggests that to enhance planning efficiency, it is necessary to adopt a systemic perspective that takes into account the institutional and governance dynamics that shape planning processes in addition to procedural complexity.

Implications of the Study

Theoretical Implication

This study extends both Stakeholder Theory and the Stakeholder Salience Model by demonstrating that stakeholder influence in planning processes is not only determined by stakeholder attributes, but also by how roles, authority, and capacity are structured within the governance system. From a Stakeholder Theory perspective, the findings show that effective stakeholder participation depends on the alignment between stakeholder roles and institutional responsibilities. In Kohat, although multiple stakeholders are formally involved, unclear roles, overlapping mandates, and weak coordination limit meaningful participation, indicating that stakeholder inclusion alone does not ensure effective collaboration unless supported by clear role definition and institutional integration. From the Stakeholder Salience Model perspective, the study finds that power and legitimacy are concentrated at the provincial level, while district-level stakeholders lack the capacity to influence decisions despite their formal role. This demonstrates that institutional capacity is essential for translating stakeholder attributes into actual influence, refining the model by showing that salience is constrained by governance structure. The study also reconceptualises urgency as a system-dependent attribute, as the absence of formal urgency mechanisms leads to reliance on informal or political interventions, which often contribute to further delays. In addition, procedural mechanisms such as multi-stage approvals are shown to be conditionally effective, becoming delay-producing when misaligned with institutional capacity and coordination systems. Overall, the study reframes planning delays as a governance outcome, arising from the interaction between stakeholder roles, salience attributes, institutional capacity, and coordination structures.

Practical Implications

The findings of this study suggest that improving land use planning efficiency in Kohat requires targeted institutional and procedural reforms focused on capacity, coordination, and decision-making structure. First, approval processes should be streamlined by reducing unnecessary review stages and introducing clear approval pathways and parallel processing mechanisms to minimize delays caused by multi-stage and repetitive technical reviews. Second, there is a critical need to strengthen district-level planning capacity through recruitment of qualified technical staff, continuous training, and establishment of functional local planning units, enabling districts to move beyond data provision toward active decision-making and implementation. Third, coordination among institutions should

improved through developing integrated inter-agency platforms, shared data systems, and regular coordination forums, reducing fragmentation and duplication of efforts. Fourth, reliance on external consultants should be reduced by building in-house technical expertise and enforcing clear accountability mechanisms for consultants, including defined deliverables and performance monitoring. Fifth, the adoption of digital planning systems and GIS integration should be supported through investment in infrastructure, data accessibility, and institutional training to enhance evidence-based planning and transparency. Finally, introducing time-bound decision mechanisms and formal urgency frameworks can improve responsiveness and reduce delays caused by the absence of structured timelines and reliance on informal interventions. Collectively, these measures emphasize that planning efficiency can be significantly improved by aligning institutional capacity, governance structure, and procedural design.

Implications for Stakeholders

The findings indicate that delays in land use planning arise from imbalances in authority, weak capacity, and poor coordination, and therefore require role-specific actions from key stakeholders. Provincial planning authorities (e.g., UPPU) need to shift from purely centralized control toward shared decision-making and streamlined approval systems. This includes delegating initial technical validation to district levels, reducing excessive review layers, and introducing time-bound approval mechanisms to improve responsiveness and reduce bottlenecks. District authorities must strengthen their role from passive data providers to active planning and implementation actors. This requires building technical capacity, filling vacant planning positions, and establishing functional district-level planning units, enabling them to effectively interpret and implement plans and reduce dependence on provincial institutions. Consultants should operate within clearly defined roles, timelines, and accountability frameworks. Their effectiveness depends not only on technical output but also on alignment with institutional processes, early-stage coordination with government teams, and adherence to agreed deliverables, reducing repeated revisions and delays. Political actors should minimize ad hoc interventions in technical planning processes and instead support institutionalized decision-making and stable policy direction. While political involvement can create urgency, unstructured interference disrupts planning consistency and leads to further delays.

Limitations of the Study

Although this study offers important contributions to understanding the effectiveness of regulatory regimes in district level land use planning, it is not without its limitations. First, the study is based on a single case study of District Kohat, which restrains the transferability of the study's results. Although the case gives detailed insights into the institutional arrangements in a medium-sized district, the institutional arrangements and contextual factors may vary in other districts or regions. Thus, the results should be viewed as context-dependent. Second, this study uses a qualitative methodology with semi-structured interviews, which draw on individuals' perspectives and experiences. While this offers in-depth understanding of institutional processes, it can be influenced by response bias and subjective judgement. Steps such as purposive sampling and inclusion of multiple stakeholder viewpoints were taken to improve reliability; however, the results are still interpretative. Third, the study sample consists of only twelve participants, representing key land use planning stakeholders. Although this is typical of qualitative case study research and allows for more in-depth analysis, this may not represent all perspectives across the institutions involved in land use planning. Fourth, the research is limited to the planning and regulatory stage, and does not consider the implementation and monitoring stage. This limits the understanding of how constraints and enablers identified in this study affect long-term planning outcomes beyond the planning and approval stage. Finally, the research is set in a particular institutional and temporal environment, in which reforms and changing governance arrangements may impact planning processes. Policy

reforms, institutional capacity and technological change could all change the dynamics identified in this research.

Reference

- Adade, D., & Vries, W. T. (2023). Digital Twin in Land-Use Planning. *Land*, Article 538.
- Ali, & al., S. e. (2024). A Novel Integrated Approach to Stakeholder Salience in Policy Contexts. *Policy Studies / Governance Journal*.
- Awa, O, H, Etim, W, Ogbonda, & E. (2024). Stakeholders, Stakeholder Theory and Corporate Social Responsibility (CSR). *International Journal of Corporate Social Responsibility*, pp. 1–14.
- Carothers, T., & Brechenmacher, S. (2014). Accountability, Transparency, Participation. Carnegie Endowment.
- Chinedu Enoguanbhor et al., F. G. (2021). Land Use Planning Challenges in Nigeria. *Land*, Article 443.
- Cobbinah, P. B., & Darkwah, R. M. (2017). Urban Planning and Politics in Ghana. *GeoJournal*, 1229–1245.
- Creswell et al., J. W. (2018). *Qualitative Inquiry and Research Design* (4th Ed.). SAGE.
- Denzin et al., N. K. (2011). *The SAGE Handbook of Qualitative Research* (4th Ed.). SAGE.
- Dey, I. (1993). *Qualitative Data Analysis: A User-Friendly Guide for Social Scientists*. Routledge.
- Dey, I. (2024). *Qualitative Data Analysis: A User-Friendly Guide for Social Scientists*. Routledge (London & New York; Taylor & Francis Group).
- Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman Publishing Inc., Boston.
- Gebrihet, & Pillay. (2022). *Urban Land Administration in Ethiopia*. Stellenbosch University.
- Goodfellow, T. (2013). Planning and Development Regulation Amid Rapid Urban Growth. *Geoforum*, 83–93.
- Hammah, N. K. (2015). Streamlining Building Permit Approval. *Cogent Social Sciences*, Article 1060730.
- Hicks, R. W. (2018). *Responding to Land Use Pressures*. ANU Press.
- Ibrahim, R., & Kweku, H. N. (2018). Streamlining Planning Approval Process. *SAUES Journal*, 1–10.
- Juhola, S. (2016). Barriers to Climate Adaptation in Land Use Planning. *IJCCSM*, 338–355.
- Klaus Deininger et al., T. H. (2014). Land Governance Constraints. *Food Policy*, 76–87.
- Liao, Z., & Liu, M. (2023). Critical barriers and countermeasures to urban regeneration from the stakeholder perspective. *Frontiers in Sustainable Cities*, Article 1115648.
- Mitchell et al. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *Academy of Management Review*, 853–886 (Vol. 22, No. 4).
- NESPAK. (2023). *Strategic Scenario Development Report of Kohat City (Package 2: Kohat, Bannu and DI Khan)*. Prepared for Urban Policy Unit, Planning & Development Department, Government of Khyber Pakhtunkhwa, Pakistan.
- Oliveira et al., E. M. (2022). Strategic Spatial Planning in Mozambique. *Ecology and Society*, Article 5.
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (3rd Ed.). SAGE.
- Rakodi, C. (2006). Order and disorder in African cities: Governance, politics, and urban land development processes. *Oxford Development Studies* (Vol. 34, No. 4), 415–436.

- Shahzad et al. (2022). Challenges of Land Development for Housing Provision. *Journal of Housing and the Built Environment*, 1319–1337.
- Stevenson, W. J. (2021). *Operations Management* (14th Edition). McGraw-Hill Education, New York.
- Wood, J. D., Mitchell, K. R., Agle, & R., B. (2018). Stakeholder Identification and Saliency After 20 Years: Progress, Problems, and Prospects. *Business & Society*, (pp. 1–25).
- Yin, R. K. (2018). *Case Study Research and Applications* (6th Ed.). SAGE.
- Yvonna S. Lincoln et al., E. G. (1985). *Naturalistic Inquiry*. SAGE Publications, Newbury Park, CA.