

What could improve or hinder the implementation of spatial planning towards environmental justice?

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Abstract

The failure of spatial planning implementation (SPI) in local municipalities contributes to the growing call for spatial planning reform and overhaul. Some barriers and enablers to the implementation of spatial planning are salient both in theory and practice. However, it remains unknown and unconfirmed whether these factors could enhance or impede the implementation of spatial planning in pursuit of environmental justice (EJ). EJ calls for equality in spatial transformation to bridge the gap between fragmented development and existing spatial patterns. The text addresses the question of what factors are perceived to enhance or impede strategies of SPI whilst promoting environmental justice. The study adopts a mixed research strategy, which is applied to a sample of municipalities in six provinces of South Africa. The results reveal that there are various barriers and enablers that can promote or hinder the process of improving SPI in an attempt to facilitate and maintain EJ.

Keywords

Environmental justice, spatial planning, implementation, enablers, barriers

1. Introduction

Spatial planning shares limited similarities with the physical planning of master plans and structural plans because it adopts a communicative approach that seeks to create better communities. Cloke and Little (1986) describe structural plans as the products of the first-generation planning approach that presents planning as scientific and apolitical. Consequently, this type of planning has never succeeded in addressing spatial inequalities in South Africa and elsewhere in the world. In South Africa, the National Planning Commission (2011) highlights the point that the spatial planning practices of the apartheid regime created spatial injustices that remain unresolved because of the emphasis on the technical approach to planning, which excludes experiential knowledge and, by extension, non-expert input.

In contrast to this, the communicative turn reflects the second-generation planning approach, which responds to the drawbacks of the earlier technical planning approaches. According to Rittel and Webber (1973), the second-generation planning approach refers to an approach that pursues a deliberative, argumentative and collaborative processes. Spatial planning, therefore, becomes an action that integrates both technical and experiential knowledge. It refers to planning that centralizes governance (Faludi, 2010) and technical expertise in its processes so as to influence decision-making.

Spatial planning can be said to play a role in the achievement of Environmental Justice, which refers to the “fair and equitable distribution of environmental (physical and socioeconomic) resources, services, and activities to all regardless of social structure through recognition and the capability approach providing equal access to participate in appropriate procedures with substantive means towards restorative processes and benefits” (Ntiwane and Coetzee, 2018:72).

The resources targeted for fair and equitable distribution can be either natural or man-made and include air, soil, water, plants, animals, infrastructure, and furniture. Furthermore, distribution regarding natural resources relates to activities distributed on natural resources. The activities include various land uses, which can be residential, commercial or industrial in nature and the services include water, electricity and sanitation supplies, education, maintenance of infrastructure and enforcement of by-laws, zoning or land use schemes among others. Therefore, this definition underscores the fact that achieving fair and equitable distribution depends on the availability of fair procedures and the capability to ensure the redress of distributive injustices. Environmental justice is broader than spatial justice because it involves various dimensions such as the dimensions of distributive, procedural, substantive, and recognition justices as well as the dimensions of the capability approach and just policy. According to Soja (2009:2), spatial justice “involves the fair and equitable distribution in the space of socially valued resources and the opportunities to use them.” The distribution in the space, as Soja suggests, does not guarantee whether the space includes water, land, animals, human beings, and soil or the interrelationship of these aspects of the community. The focus of Soja’s contention is on social values that present a shortfall in respect of addressing injustices on environmental values.

The distribution dimension promotes fair distribution whereas procedural justice promotes fair participation, the objective treatment of stakeholders and processes, ethicality, consistency, and impartiality all the while allowing for appeal or correctability processes. The substantive justice dimension requires the provision of platforms that can enable stakeholders to participate in planning and decision making. These platforms include institutions, empowerment programmes, laws and policies. Recognition justice dimension promotes planning practices that consider all environmental conditions by integrating both expert and non-expert knowledge in planning. The capability approach calls for the assessment of the environment (natural, social, economic and cultural), state, and various organizations’ ability to achieve planning objectives and outcomes, and the dimension of just policy promotes the evaluation and monitoring of policy, laws, and effects of planning on quality of life. Further, the monitored and evaluated effects include the effects on a biotic community, which is in line with Aldo Leopold’s view of the community, which asserts that “the land ethic simply enlarges the boundaries of the community to include soil, waters, plants and animals or collectively: the land” (1949:239). This dimension also advocates for restoration measures that redress injustices through reconciliation strategies. Therefore, the role of spatial planning, especially in its pursuit of Environmental Justice, must ensure the thorough investigation of a planning area to determine injustices that might occur during the planning phases for any development, so as to inform distribution and the implementation of restorative measures. Spatial planning achieves this kind of planning by including various stakeholders in a participatory process, which enables engagement regarding the spatial challenges, required strategies and implementation. Spatial planning has the capacity to fulfil such a role, but it requires a just focus in its approach in order to promote Environmental Justice in planning (Ntiwane and Coetzee, 2018).

In practice, spatial planning still exists with challenges, especially regarding its implementation, which leads to a failure in achieving planning objectives and outcomes. Various scholars highlight the enablers of, and barriers to, the implementation of spatial planning (Konukiewitz, 1983; Cloke and Little, 1986; Halla, 2002; Mark, 2003; Curtis, 2008; Grant, 2009; Knight, et al., 2011; Byambadorj, Amati and Ruming, 2011, Clifford, 2013; Chirisa, 2014; Ratulangi, et al. 2015). However, no literature exists that states the factors that can enhance or impede the implementation of spatial planning in achieving Environmental Justice. The realization of Environmental Justice through spatial planning is a direct response to environmental injustice. Fredericks (2011:63) defines environmental injustices as the “disproportionate distribution of environmental benefits and harms among racial and socioeconomic groups, the limited ability of these groups to participate in decision making about such issues, and the restoration and enrichment of relations between those involved in and affected by environmental injustice.”

Understanding the factors that can enable spatial planning in an attempt to realize Environmental Justice is a proactive endeavour at improving implementation. In addition to this, understanding the factors that can impede the implementation of spatial planning in pursuit of Environmental Justice is akin to proactively plan for challenges that arise during implementation. This paper, therefore, explores the factors that are perceived to enable or impede the implementation of spatial planning towards achieving Environmental Justice. In exploring these factors, the paper also reveals the implementation approach and style that local authorities adopt in the exercise of municipal planning. Therefore, the paper will firstly present the theory and literature on Spatial Planning Implementation (SPI) approaches, typologies, enablers, and barriers. Secondly, it discusses the methods that were applied in the endeavour to respond to the research question, before concluding with the study findings and conclusion.

2. Approaches to spatial planning implementation (SPI)

The existing literature presents three approaches to policy or plan implementation, namely the top-down, bottom-up and hybrid approaches. The top-down approach finds expression in the first-generation planning approach that is largely technical in nature. According to Koontz and Newig (2014), the top-down approach in planning allows state technocrats and other policy agencies to develop plans before distributing them to other stakeholders as final for sharing and, therefore, involves a technical connotation that imposes policies on societies. Clifford (2013) states that the promoters of the top-down approach view plan preparation from a rational point of view, which leads to a mismatch between planning, the intended objectives and the practice or implementation of results. In practice, the democratic South African government’s planning practice is two-fold because it involves the state and society, which stands in contrast to the top-down approach.

On the contrary, the second approach, namely the bottom-up approach, adopts the principles of the communicative turn. Healey (1992) contends that the communicative turn strengthens existing planning theories and influences practice. This form of planning theory is problem and conflict-driven and holds the intention of consensus building among multiple stakeholders at its core. According to Menzel (1987), the bottom-up approach posits that the outcomes of implementation necessarily take place within a societal environment where conflict often dominates. The contention of this approach relies on the fact that the evidence and contextual experiences of society are the preconditions to successful problem solving through policy preparation and implementation. According to deLeon and deLeon (2002), the

collaborative nature of the bottom-up approach, as essentially democratic, considers societal diversity. This method advocates for inclusiveness in the stages of plan preparation and implementation.

The last approach is the hybrid approach, which attempts to bridge the expanding gulf between the top-down and bottom-up approaches that emanates from the various critiques of both approaches (Pülzl and Treib, 2007). The hybrid approach combines the perspectives of the bottom-up and top-down approaches. In recent years, spatial planning in developing countries such as South Africa and in developed countries, such as those in Europe and the UK, advocates for the convergence of the top-down and bottom-up approaches, but the bottom-up approach often takes precedence. Clifford (2013) states that plan or policy-making in conjunction with adequate implementation remains indispensable. This illuminates the interdependence that exists through an inclusive argumentative process. It is through this approach that Environmental Justice has evolved to influence the streamlining of environmental justice concerns into planning, which were previously excluded by the top-down approach. It is therefore evident that neither the top-down approach nor the bottom-up approach, within the context of environmental justice, is adequate in isolation from each other.

3. Types or styles of spatial planning implementation

There are seven types or styles of implementation presented in literature, namely the intra-organizational, inter-organizational (Schermerhorn, Jr, 1975; O'Toole, Jr. and Montjoy, 1984; Menzel, 1987; O'Toole, Jr., 1993; Koontz and Newig, 2014), administrative, political, experimental, symbolic (Matland, 1995; deLeon and deLeon, 2002; Mischen and Sinclair, 2009) and collaborative (Koontz and Newig, 2014) types of implementation.

The intra-organizational style of implementation focuses on the micro model of execution (Menzel, 1987) and emphasizes the understanding of institutional ethos and internal attributes, which constitute the impetus of an institution's ability to deliver policy outcomes (Schermerhorn, Jr, 1975). This mode of implementation calls for institutional introspection regarding the capabilities and establishment of subcommittees or sub-directorates to facilitate and coordinate planning. Hence, intra-organizational implementation primarily resonates with the top-down approach.

The inter-organizational typology requires decisions for actions from multiple stakeholders consistent with procedural justice, from horizontal and vertical sectors and applies a deliberative, coordinative, and collaborative process whereby bargaining and consensus can take place through leadership (Koontz and Newig, 2014). According to O'Toole, Jr. (1993), the inter-organizational typology consists of two inter-organizational arrangement structures namely the public structure, which includes intergovernmental relations, grant reliance and governmental parastatals and the public-private structure, which includes the private control over resources. This approach can enable a thorough assessment of institutions' capabilities, at vertical and horizontal levels in an attempt to achieve planning objectives and outcomes and, therefore, reflects a hybrid approach.

The administrative implementation style reflects a top-down approach, which focuses more on policy implementation and compliance with the spatial planning legal framework. However, the adequacy of resources influences the achievement of policy implementation outcomes, and so failure often results from poor management and inadequate monitoring of

implementation (Matland, 1995). In practice, the South African Spatial Planning and Land Use Management Act, 2013 (SPLUMA), with its clear goals and implementation actors, introduced the challenges associated with local authorities' available resources. Yet, this Act is a tool to achieve spatial transformation (Schoeman, 2015).

The fourth type of implementation style is political and consists of a high degree of conflict because of the fact that political actors often have well-structured individualized policy goals that are incompatible and exist in conjunction with a low level of ambiguity concerning responsibility (Matland, 1995). SPI, in this context, revolves around political policy commitments, which are often pronounced and implemented without due diligence regarding their feasibility to realize intended outcomes. The political style of SPI is a top-down approach, and also shares similarities with the fifth implementation typology known as the symbolic typology. According to Matland (1995), this kind of implementation presents a high degree of both ambiguity and conflict, without the influence of top-down or bottom-up approaches. This type of implementation also promotes a coalition of parties, which can prioritize selective interests, thereby resulting in injustice.

The sixth type of implementation is experimental implementation. According to Mischen and Sinclair (2009) and deLeon and deLeon (2002), the apparent intention of policy in the experimental implementation approach emphasizes participation and societal knowledge sharing through the bottom-up approach. This implementation type implies the creation of networks within the society to deliberatively deal with contextual aspects. However, the contextual connotation of this type of implementation has the potential to exclude other sectors that can influence planning outcomes.

Lastly, the collaborative implementation typology adopts the hybrid approach because of its inclusivity. The precondition for the collaborative implementation approach includes integration with other sectors and various social, economic and political conditions (Koontz and Newig, 2014). This type of implementation stands a good chance of influencing the achievement of Environmental Justice, especially given its inclusive character, which allows for the adequate engagement among stakeholders and communities. This model also requires planners to assume a leadership role in an attempt to motivate, encourage and support participants.

4. Barriers and enablers to spatial planning implementation

The enhancement of SPI emanates from factors that are regarded as enablers whereas the impediment to SPI derives from certain barriers. In the existing literature, evidence confirms that the barriers to, and enablers of, spatial implementation share similarities in most of the studies commissioned between 1983 and 2015. The literature from 1983 to 2015 measures the changes in the specific barriers to, and enablers of, the SPI over a period of three decades. The studies of Konukiewitz (1983) and Cloke and Little (1986), as well as studies two to three decades later, in particular those of Grant (2009), Chirisa (2014) and Ratulangi, et al. (2015), share similarities in their identification of barriers to SPI, which are defined as uncoordinated planning, inadequate resources, political leadership and political interference. These results are a manifestation of the SPI challenges that are still pervasive in the praxis of planning. In past decades, most countries introduced reforms in spatial planning, although implementation barriers remain pertinent. According to Clifford (2013), the reforms in England, which introduced the local development frameworks, failed to consider the resources required for implementation and the fine details of implementation. It is clear that,

in the midst of spatial planning overhaul and transformation, the failure to consider all aspects of planning and implementation results in problematic implementation.

In addition, existing literature also represents changes in attitude, capacity building, political leadership and support, collaboration, and adequate resources as well as monitoring and evaluation as constituting the enablers to the successful implementation of spatial planning policies and plans (Cloke and Little, 1986; Curtis, 2008; Grant, 2009; Chirisa, 2014). It can be said that the Environmental Justice turn in planning requires the implementation of plans and policies to achieve outcomes through fair distribution using appropriate procedures.

5. Study method

The foundation of the study methodology is a mixed method approach that includes qualitative and quantitative methods. The study included a survey, which was conducted with municipal planners across three categories of municipalities in South Africa, namely metropolitan, district and local municipalities. The sample of the study includes a total of 176 municipalities in six provinces of a total of nine provinces that exist in the Republic of South Africa. All municipal planners received questionnaires via email. The study excluded three provinces because their municipal planners failed to achieve the desired response rate and a total of seven local municipalities were excluded because of the absence of municipal planning functions. After the exclusion, the survey continued in the six provinces for a period of four months through the administration of 176 questionnaires among municipal planners.

The questionnaire included a section on contextual and demographic data as well as a section on SPI and the corresponding approach, type of SPI and the barriers and enablers to SPI. The section on SPI utilized a Likert scale of 1 to 5, which measured the frequency of using a type of implementation and the likelihood of using each type of implementation.

Further, the study included a total of five interviews with experienced planners or experts in planning in the private sector that lasted between 38 minutes and 2 hours. The researcher utilized the South African Council for Planners’ database, which is available on website, to randomly select twenty planners in the private sector from the sample of provinces, of whom only five agreed to participate. The analyses of the interview results included coding whereby the identity of an interviewee is presented by KI and a random number, e.g. KI01, in order to maintain confidentiality. During analyses, the data deriving from questionnaires and the descriptive statistics assisted in providing central tendency and variability or frequency of the results.

Table 1: Method for the ranking the frequency of variables

Ranking descriptions	Aggregation of %
Most frequently used type of implementation	Sometimes and frequently
Most likely implementation type to support EJ	Likely and extremely likely
Most breaker (barrier) of spatial planning implementation towards EJ	Moderate barrier and extreme barrier
Most maker (enabler) of spatial planning implementation towards EJ	Very influential and extremely influential

The analysis allowed the ranking of frequency on most of the variables in line with Table 1. Microsoft Excel was used as a tool for data analysis and Pearson’s *r*, regression analysis and an ANOVA analysis were employed in the analysis of the results.

6. Study findings

6.1 Municipal approaches to spatial planning implementation

The results depicted in Figure 1 indicate that most municipalities (56%) use the hybrid approach in the implementation of spatial planning policies. These results confirm the fact that the participating municipalities give greater consideration to technical and substance matters in planning. The integrated development planning (IDP) process, which is legislated in South Africa, also explains the utility of both approaches because it requires municipalities to conduct extensive public participation, thereby enabling communities to voice out their planning needs. In terms of the planning process, it is important to note that public participation is unavoidable, even if the municipal council is able to facilitate and implement a plan independently. By implication, the approach to planning in South Africa is strong on procedural justice, and in particular participation. However, the level of participation remains a challenge.

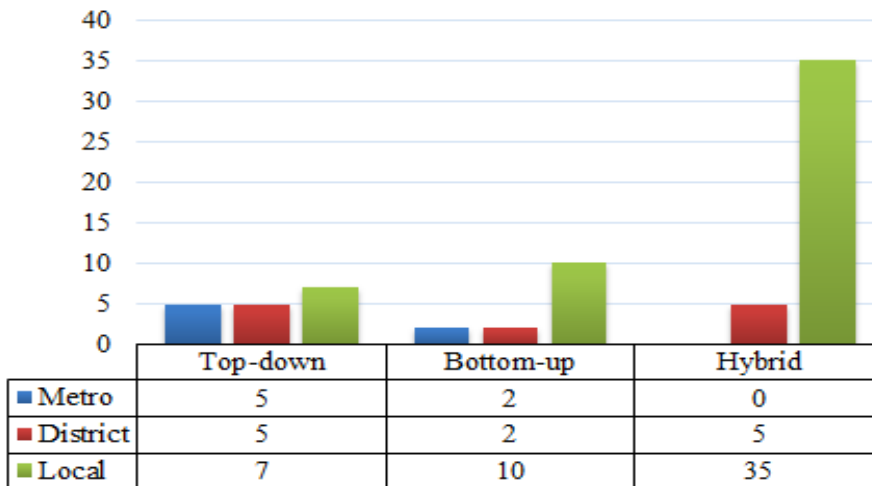


Figure 1: Spatial planning implementation approaches in local municipalities ($N=71$)

The results illuminate the central nature of the second-generation planning approach, or communicative turn, in municipal planning overall, which can be attributed to the legal requirement of public participation in the South African legal planning framework. Moreover, the findings reveal that there is no difference ($p > 0.1$) between the responses of municipal planners on the application of approaches to SPI, when compared to the mean values of the responses on approaches used. However, the study reveals a significantly weak positive relation between municipal categories and the approach used to implement spatial planning, $r = 0,4$, $p < 0.001$. In this context, a change in the approach that is used has a weak significant association with the category of a municipality, which implies that there is no significant evidence of an association. From these results, it is possible to generalize the use of the top-down approach by metropolitan municipalities to other metropolitan municipalities.

6.2 Municipal spatial planning implementation style or type

Each municipality adopts a style of SPI in one way or another, and to varying degrees. The results, therefore, indicate that municipalities prefer various styles or types of SPI.

6.2.1 Administrative, symbolic and political

The results highlight the point that the most frequently applied type of SPI is the administrative type, which confirms that most municipalities focus on compliance, within a legislative or governance framework, as opposed to outcome-oriented approaches. These findings can also account for the persistence of spatial disparities in the geographies of the Republic of South Africa. The focus on compliance prolongs the process of recovery, whereby planning attempts to overcome the injustice left by the apartheid regime in the case of South Africa. The findings show that 35% of municipal planners view the symbolic type as being rarely applied by municipalities with only 8% planners noting frequent application, which is supported by the existence of coalition municipalities, particularly in Gauteng, Eastern Cape and Limpopo provinces. The general local government elections of 2016 led to the creation of coalition governments in some municipalities. Undoubtedly, implementation in such cases focuses more on consensus in order to sustain coalitions, as opposed to prioritizing consensus as the means by which to achieve spatial planning outcomes.

6.2.2 Inter-organizational and intra-organizational

The results reveal that 41% of respondents view their municipalities as applying the inter-organizational implementation occasionally whereas 35% of the respondents indicated frequent application. These results reflect that vertical and horizontal integration is more of an occasional event as opposed to a frequent and consistent approach to SPI in municipalities. Furthermore, the findings indicate that both the national and provincial governments inadequately engage with municipalities regarding the required intervention related to service delivery, and especially the interventions that are aimed at redressing past practices of poor service delivery. As a result, the national and provincial governments constantly implement programmes that hinder the achievement of spatial planning in pursuit of Environmental Justice. In literature, Benton (2013) cites the point that local authorities are incomplete without the support of the national and provincial governments. On the other hand, the intra-organization style, relating to horizontal integration and interaction within municipalities, appears more evident in municipal planners' responses, yet with limited frequency in application. The municipal planners' responses indicate that the application of this style occurs sometimes (37%), which suggests that internal departments in municipalities exclusively interact on critical matters. By implication, these departments only engage when communities put pressure on a municipality, either through litigation or protest actions.

6.2.3 Collaborative and experimental

The study also reflects that the collaborative and experimental styles of implementation are the least frequently used. Existing literature argues that collaborative style in planning has the potential to influence planning outcomes (Healey, 2003; Cheng, 2013, Roy, 2015; Mattila, 2016), yet appears with no significant application in municipalities. The respondents' results reveal that municipalities do not use the collaborative implementation style frequently. These findings can, to some extent, explain the challenges of spatial transformation that exist in the geographic architecture of South Africa. The inability of stakeholders to collaborate in planning, and in particular in municipal planning, will not only impede the achievement of planning outcomes but can also lead to the collapse of an institution. Such collapse could occur because an institution that provides no platforms for consensus building and bargaining can hardly influence agreements related to planning implementation. This lack of collaboration is the reason for the adoption of the district development model by the South

African government that advocates for a district or metropolitan One Plan. In addition to this, the results indicate that the experimental style is a site-specific style that municipalities only use on occasion. This is problematic because the experimental style is important when planning for a specific area, which can provide an opportunity to address environmental injustices through local precinct plans in more detail. These results further highlight the need for improvement in municipalities, especially concerning the implementation of these two styles.

The results in Table 2 reveal that the administrative style is the most frequently used SPI type, and that the symbolic style is the least frequently used in municipalities. The ranking results also indicate that municipalities focus more on the compliance with standard requirements, all the while displaying limited results with regard to spatial transformation.

Table 2: The ranking on the use of implementation style

No	Types of Implementation	Sometimes and Frequently (%)
1	Administrative	76
2	Inter-organizational	76
3	Intra-organizational	67
4	Political	61
5	Experimental	57
6	Collaborative	56
7	Symbolic	29

Moreover, a statistical analysis reveals that there is a relationship between the responses related to the inter-organizational style and the province where a planner works, as indicated by a strong positive association ($r = 0,8, p > 0,05$). This implies that the inter-organizational style of implementation as opposed to other styles where relationship exists, the level of interaction between local and provincial governments differs per province. In addition, the mean analysis reveals a significant difference between the responses that relate- to the application of each type of implementation. The Cronbach's Alpha of the results is $\alpha = 0.91$, which indicates that the results have a high degree of reliability with regard to internal consistency. By implication, the use of each style differs from one municipality to another.

a) Likelihood of each implementation type supporting Environmental Justice

The results show that each type of implementation has the potential to influence SPI in pursuit of Environmental Justice. The findings indicate that respondents are of the opinion that the intra-governmental (55%), inter-governmental (52%), collaborative (44%), administrative (41%), political (41%), experimental (34%), and symbolic (27%) types of SPI are, to varying degrees, likely to contribute towards the achievement of Environmental Justice. Quite notably, respondents highlight the point that all styles of implementation are extremely likely to support planning and the achievement of Environmental Justice. The results imply that all stakeholders should inform policy-making, decision-making and implementation before ensuring compliance so as to achieve the intended planning objectives and outcomes. Further, Table 3 provides the ranking on the types of implementation that are most likely to contribute towards Environmental Justice, which was informed by the aggregation of municipal planners' responses on the items of 'likely', and 'extremely likely'.

Table 3: The ranking on the likelihood of implementation style towards EJ

No.	Types of Implementation	Likely and Extremely Likely (%)
1	Administrative	76
2	Intra-organizational	73
3	Collaborative	72
4	Inter-organizational	72
5	Political	52
6	Experimental	49
7	Symbolic	35

The results show similarities between the ranking of the administrative style, regarding its frequency of use and the likelihood of its ability to influence Environmental Justice. The rationale for this might be the legislative nature of spatial planning in the country, which renders compliance unavoidable. It can be said that South Africa has a good legislative framework for spatial planning because it incorporates the principles that can contribute to the achievement of Environmental Justice, as supported by the responses of various interviewees (KI01, KI02, and KI04). It is apparent that municipal planners require increased motivation to implement various types of implementation, which is achievable through appropriate leadership.

6.3 Perceived barriers and enablers to Spatial Planning Implementation

There are a number of barriers to, and enablers of, SPI identified in literature, and this study classified these into four categories, namely structural, political, administrative, and contextual categories. The structural category addresses issues of policy and governance, whereas the political category includes factors that address the influence of politics in planning. The administration category responds to the issues that relate to bureaucratic challenges, effectiveness, conduct of municipalities and policy while the contextual category responds to the issues of procedure and recognition.

6.3.1 Structural barriers and enablers

The findings in Figure 3 below reveal a low percentage of respondents who identified structural barriers as not hindering SPI in achieving Environmental Justice. In addition, the rationale for some municipal planners in viewing the factor of the absence of spatial planning policies as not being a barrier might be the fact that most municipalities are legally mandated to adopt spatial planning policies, such as a spatial development framework (SDF). Although spatial planning policies are available in municipalities, various scholars highlight the challenges associated with their preparation and implementation (Ntiwane, 2012; Görgens and Denoon-Stevens, 2013; du Plessis 2014; and Hansmann, Lincoln and Musvoto, 2018). This finding on structural barriers is in accordance with the high percentage of respondents who believe that their municipalities use the administrative style of SPI. The fact that few municipal planners perceive the lack of leadership factor as not being a barrier confirms that the beneficial impact of appropriate leadership in some municipalities remains elusive.

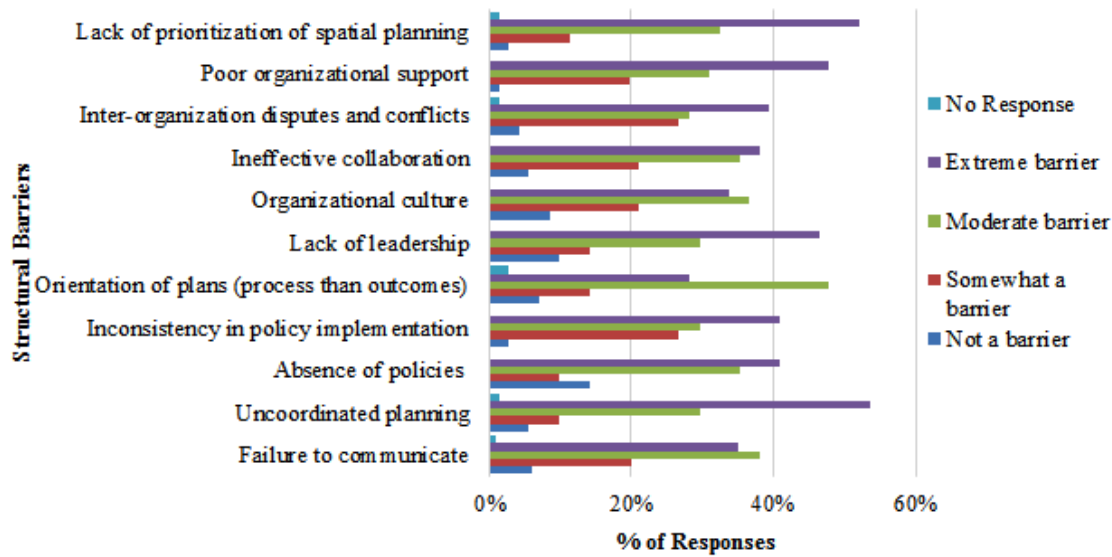


Figure 2: Responses on structural barriers to implementation (n=71)

The responses in Figure 2 demonstrate that 54% of municipal planners consider uncoordinated planning as an extreme barrier and 52% of these planners also view the lack of spatial planning prioritization as an extreme barrier. This can explain municipal planners' responses regarding the frequency of the use of intra- and inter-organizational implementation styles in municipalities. Table 4 presents the ranking of the most pertinent barriers to the implementation of spatial planning towards Environmental Justice. The results revealed that the lack of spatial planning prioritization and incoordination are the factors that most pertinently impede the implementation of spatial planning. This finding confirms the results by the Republic of South Africa (2019) that found local government allocating inadequate budget for spatial planning. The failure to prioritize spatial planning can point to the persistent unjust distribution of resources, activities and services; and uncoordinated planning further contributes to the government's inability to assess the capabilities of various municipalities, which should inform intervention areas.

Table 4: Ranking of structural barriers

No.	Barrier	Moderate barrier and extreme barrier (%)
1	Lack of prioritization of spatial planning	84
2	Uncoordinated planning	84
3	Poor organizational support	79
4	Orientation of plan (process than outcome)	76
5	Lack of leadership	76
6	Absence of spatial planning policy	76
7	Ineffective collaboration	73
8	Failure to communicate	73
9	Inconsistency in policy implementation	71
10	Organizational culture	71
11	Inter-organizational disputes and conflicts	67

Furthermore, the findings reveal that there is no difference in the manner in which participants viewed these structural barriers. In view of the statistical results, these barriers

can be generalized to other planners working in other categories of municipalities. The findings also demonstrate that the most influential structural enabler of spatial planning in pursuit of Environmental Justice is the adoption of a coherent SPI strategy, as evident from Table 5. The SPI strategy is the means with which to highlight the background and rationale (why) for spatial transformation (what) through practical means (how) with an achievable schedule (when).

Table 5: Ranking of structural enablers

No.	Enabler	Very influential and extremely influential (%)
1	Adoption of spatial planning implementation strategy	84
2	Appropriate and improved management leadership	83
3	Responsive organizational structure	80
4	Improved inter-organizational coordination and cooperation	79
5	Change in organizational culture	79
6	Improved collaboration	79

In support of this finding, KI05 noted that municipalities have plans, such as the SDF, to address spatial geographies, but they struggle without the proper tools for implementation. These results imply that the documentation of restorative measures in policy without having an implementation strategy can contribute to problems in implementation.

6.3.2 Political barriers and enablers

Barthwal and Sah (2008) argue that political leaders invariably influence policy-making and implementation. As a result, the political factors that municipal planners perceive as impeding SPI in achieving Environmental Justice have the potential to obstruct spatial planning processes.

Table 6: Responses on political barriers (n=71)

Political Barrier	Not a barrier	Somewhat a barrier	Moderate barrier	Extreme barrier	No Response	Total
Pressure	3%	11%	27%	59%	0%	100%
Interference	4%	8%	27%	59%	1%	100%
Lack of leadership	8%	10%	35%	44%	3%	100%
Poor support	4%	11%	27%	52%	6%	100%

Table 6 depicts the 59% of respondents who perceive political factors as constituting an extreme barrier with the potential to impede spatial planning in achieving Environmental Justice. Few municipal planners identified these factors as not being barriers. The political leadership and discipline of politicians in some municipalities could be one of the reasons for these few municipal planners to view these factors as not being barriers. Further, the statistical analysis of the results indicates that there is a moderately positive relation (0.6) between political pressure and interference, as well as a lack of leadership. These findings imply that a spatial planning process that is driven by political pressure results in political interference in planning decisions.

Table 7: Ranking of political barriers

No.	Barrier	Moderate barrier and extreme barrier (%)
1	Pressure	86
2	Interference	86
3	Poor support	79
4	Lack of leadership	79

The findings from the ranking in Table 7 show that political pressure is the barrier that is perceived as having the most potential for preventing effective SPI. In the experience of the researcher, political pressure is more prevalent during election periods when campaigning is more prominent. During this period, political leaders coerce administrators, and by extension municipal, provincial and national planners, to implement programmes (such as settlement planning for the construction of low-cost housing) that appeal to the majority in order to support voting mobilization purposes.

Conversely, in the midst of political factors that municipal planners perceive to impede the implementation of spatial planning in achieving Environmental Justice, it is important to note the factors or enablers that are perceived to enhance implementation. It is evident from the above figure that 55% of municipal planners perceive capacity building for political leaders, as being ‘extremely influential’ factor in enhancing the implementation of spatial planning towards achieving Environmental Justice, while 52% also perceive appropriate and improved political leadership in the same light. The respondents’ support of capacity building for political leaders on spatial planning posits that capacity building, with regard to the importance of planning, is the prerequisite for preventing political pressure and interference in planning and implementation. The SPI strategy discussed above can, to some extent, assist in mobilizing political leaders. Nonetheless, political interests in a political space are ineluctable, but the mitigation of political barriers is possible.

The responses of municipal planners rank the factor of capacity building for political leaders on spatial planning with the highest potential (80%), while resistance management (64%) has the least potential. The results indicate that it is only through substantive justice, which allows for empowerment, that politicians can understand and support SPI.

6.3.3 Administrative barriers and enablers

Earlier in the discussion, the study findings revealed that municipalities use the administrative style to implement spatial planning policies. The results in Figure 3 show that 65% of the respondents perceive inadequate tools of trade, such as a lack of qualified or skilled personnel and adequate financial resources as constituting the most pertinent administrative barrier to SPI in achieving Environmental Justice. In addition to this, Table 8 below presents the inadequate tools of trade as comprising the most extreme administrative barrier to SPI in achieving Environmental Justice.

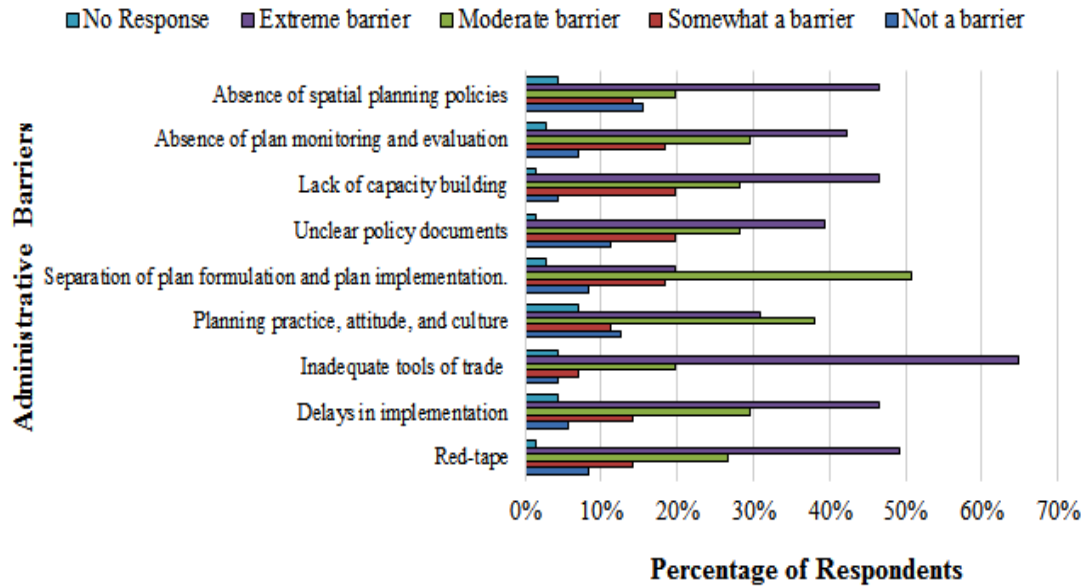


Figure 3: Responses on the administrative barriers (n=71)

Table 8: Ranking of administrative barriers

No.	Barrier	Moderate barrier and extreme barrier (%)
1	Inadequate tools of trade	85
2	Delays in implementation	76
3	Red tape	76
4	Lack of capacity building	74
5	Absence of plan monitoring and evaluation	72
6	Separation of plan formulation and plan implementation.	71
7	Planning practice, attitude, and culture	69
8	Unclear policy documents	66
9	Absence of spatial planning policies	64

In comparing the highest-ranking structural and administrative barriers with the highest ranking structural and political enablers, the results show that a drastic challenge exists in regard to SPI. The statistical analysis reveals that there is a significant difference between responses related to the administrative barriers. It is possible that a municipality with adequate personnel and financial resources would not identify the inadequate tools of trade as an extreme barrier. In testing the assumption, the researcher did a regression analysis which concluded that there is a weak positive significant association ($r(69) = 0.2, p < 0.001$) between a category of a municipality where a respondent works and the barrier of inadequate tools of trade.

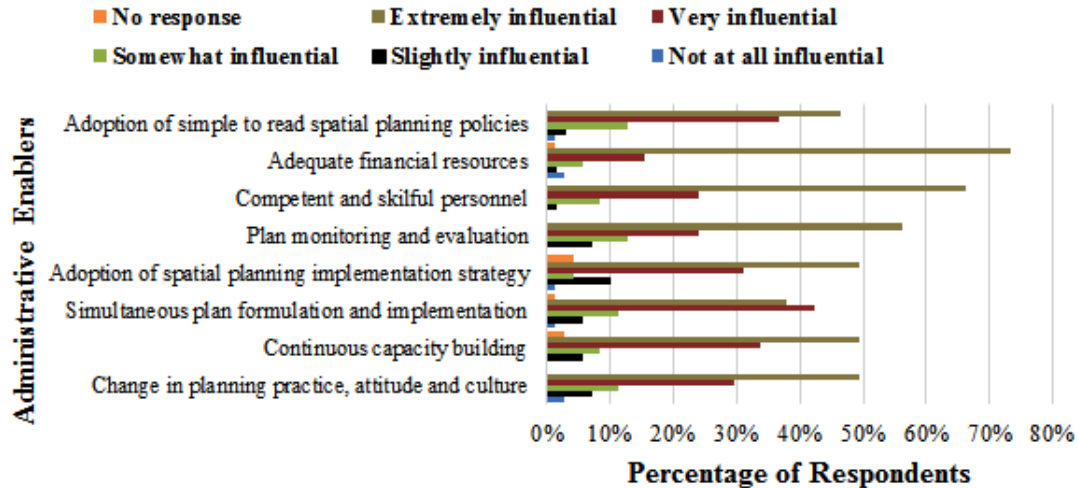


Figure 4: Responses on administrative enablers (n=71)

Figure 4 illustrates that 73% of respondents perceive adequate financial resources, while 66% of respondents view competent and skilful personnel planning, as being enhancers that exert an extreme influence on the implementation of spatial planning in the realization of Environmental Justice. These two factors, classified under the tools of trade, are indeed crucial in SPI if the intention is to achieve Environmental Justice. Interviewee KI02 contends that municipalities, in practice, must set aside at least between five and ten per cent of their annual budgets to fund the implementation of spatial planning policies and programmes, and further stated that, without financial resources, spatial planning may find it cumbersome, if not impossible, to achieve Environmental Justice. Moreover, the lack of capacity is a challenge confronting most provinces in the country, especially concerning the implementation of SPLUMA. The aggregation of municipal planners’ responses on the Likert scale of ‘very influential’ to ‘extremely influential’ informed the ranking set out in Table 9 below.

Table 9: Ranking of administrative enablers

No.	Barrier	Very influential and extremely influential (%)
1	Competent and skilful personnel	90
2	Adequate financial resources	88
3	Adoption of simple to read spatial planning policies	83
4	Continuous capacity building	83
5	Plan monitoring and evaluation	83
6	Simultaneous plan formulation and implementation	80
7	Adoption of spatial planning implementation strategy	80
8	Change in planning practice, attitude, and culture	80

The ranking of these factors in Table 9 presents competent and skilful personnel as being the highest-ranking enabler, succeeded by the factor of adequate financial resources. Undoubtedly, an SPI strategy would require a planner, who is quite adept at spatial planning, to forecast the implementation resource requirements, i.e. budget. In practice, some government departments that implement programmes related to spatial planning typically fail to spend their allocated budgets because of the lack of capacity or skills to execute.

6.3.4 Contextual barriers and enablers

There are two contextual factors perceived to impede SPI in its endeavour to realize Environmental Justice. Figure 5 describes the perceptions of municipal planners on the identified factors with regard to the implementation of spatial planning. It is apparent in Figure 5 that most respondents (45%) perceived the exclusion of context issues as being a factor with the potential to ‘extremely’ impede the success of spatial planning in achieving Environmental Justice, when compared with the lack of participation. On the other hand, 11% of the respondents perceive both factors as not being barriers to the implementation of spatial planning in realizing Environmental Justice.

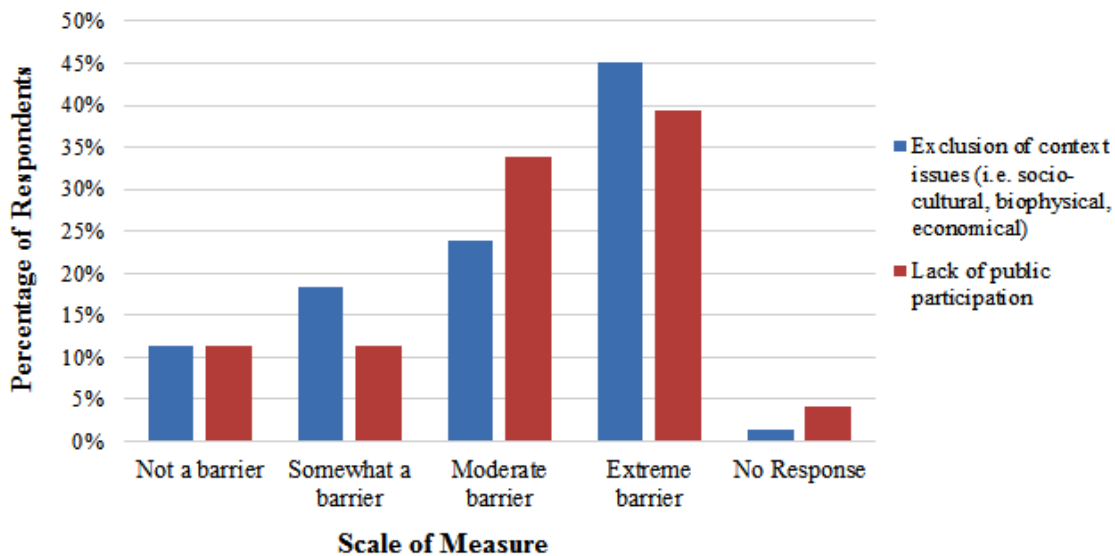


Figure 5: Responses on the contextual barriers (n=71)

Although the exclusion of contextual issues appears with the highest percentages, it ranks second. These findings underscore the point that the lack of participation, as a contextual barrier and as a procedural justice issue, is the impeding contextual factor that can most readily compromise the achievement of Environmental Justice. The results of the ranking confirm the notion, which is supported by recognition justice and procedural justice, that states that participation is the means by which to streamline contextual issues into planning. The statistical analysis of the results reveals that there is a strong, positive ($r = 0.7$) association between the ways in which respondents perceive these two factors. This association exists as either having a negative relationship or zero relationship with the approach to, and the type of, SPI that a municipality uses. By implication, the lack of public participation in planning contributes to the exclusion of contextual issues. However, in practice, planners have a responsibility to gain an understanding of the contextual issues through adequate, fair and meaningful public participation, which must guide the requirements of plan making and the proposition of the intended outcomes of plan implementation.

Conversely, the study found that the most influential enabler to the implementation of spatial planning towards achieving Environmental Justice is public awareness and education (77%), followed by improved public participation (72%) and mainstreaming of contextual issues into planning (66%). The findings confirm that prior to public participation, empowerment of the

public on spatial planning through mobilization programmes, such as awareness and education, is necessary.

7. Conclusion

Spatial planning implementation (SPI) remains a challenge that requires urgent proactive planning. The study concludes that the barriers to, and enablers of, spatial planning implementation that are evident in literature apply to the implementation of spatial planning in supporting the achievement of Environmental Justice. It is apparent from the findings that there are four categories of SPI barriers and enablers- structural, administrative, political and contextual barriers and enablers. The most critical factors across all categories that could impede SPI include the lack of spatial planning prioritization, political pressure, inadequate tools of trade and lack of public participation. On the contrary, the most critical factors across all categories that could enable SPI in achieving Environmental Justice include the adoption of an SPI strategy, the provision of capacity building on spatial planning to political leaders, competent and skilful personnel as well as public awareness and education. Moreover, the study revealed that the administrative SPI style will remain evident because spatial planning is the subject of regulation. It is also evident that the communicative turn in planning exists in most municipalities, owing to the high number of municipalities that apply a hybrid approach to implementation. The findings of the study will contribute to the improvement of theory on SPI, in particular with regard to the style or type of implementation and the various categories of barriers and enablers. Proactive planning, with these barriers in mind, and through the consideration of the identified enablers, can support the expedient spatial planning strategies that attempt to respond to Environmental Justice. The study, therefore, strongly recommends that further research be carried out on the adoption of SPI strategies in local authorities.

Acknowledgement

The authors would like to appreciate the contribution and assistance of the University of Pretoria to make this work a success.

Funding declaration

The authors received no funding support for the research, authorship and or publication of this article.

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