

**Institutional Grammar, Requirements, and Monitoring for Low-Income Housing Program:  
A Comparative Study of Indonesia's FLPP and California's LIHTC**

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## ABSTRACT

This research presents a comparative qualitative study of low-income housing programs, comparing Indonesia's Facility of Liquidity for Housing Financing Program (FLPP) with California's Low Income Housing Tax Credit (LIHTC). The research examines the influence of policy design including requirements and monitoring on location and quality of low-income housing as a gap in the existing literature by employing policy document design and content analysis. In terms of the process structure, FLPP is considered more susceptible to principal-agent problems, such as inefficient and poor delivery of projects, than LIHTC. The application of the institutional grammar tool reveals that LIHTC's policy documents are better balanced and feature more restrictive statements compared to FLPP's. As expected, FLPP's location and quality requirements lack specificity, frequently referring to general policies, and its monitoring system is less rigorous than LIHTC's. Despite LIHTC's higher complexity and cost, its robust requirements and monitoring offer valuable insights for enhancing FLPP's effectiveness in addressing location and quality challenges. This study reveals that well-designed policies are less likely to suffer from inadequate low-income housing location and quality of low-income, highlighting the significance of policy design in resolving these issues. Thus, the research emphasizes the importance of paying attention to policy design when tackling low-income housing location and quality concerns.

**Keywords:** policy design, low-income housing, requirements, monitoring, location and quality

## **PREFACE**

### **Acknowledgements**

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### **Disclaimer**

Master theses are preliminary materials to stimulate discussion and critical comment. The analysis and conclusions set forth are those of the author and do not indicate concurrence by the supervisor or research staff.

**CONTENTS**

**ABSTRACT** ..... 2

**PREFACE**..... 3

**CONTENTS**..... 4

**1. INTRODUCTION**..... 5

    1.1. Motivation ..... 5

    1.2 Academic Relevance ..... 6

    1.3. Research problem statement..... 7

**2. THEORY** ..... 8

    2.1 Provision of Low-Income Housing ..... 8

    2.2 Location and Quality of Low-Income Housing ..... 10

    2.3 Policy Design ..... 11

    2.4 Hypotheses ..... 12

**3. EMPIRICAL CONTEXT** ..... 12

**4. DATA AND METHOD**..... 13

    4.1 Research Methodology..... 13

    4.2 Data Collection..... 14

**5. RESULTS**..... 15

    5.1 Policy Design ..... 15

    5.2 Provision Process ..... 15

    5.3 Requirements for Location and Quality ..... 19

    5.4 Quality Monitoring..... 25

**6. DISCUSSION** ..... 27

**7. CONCLUSION**..... 29

**REFERENCES** ..... 31

## 1. INTRODUCTION

### 1.1. Motivation

According to Indonesia's Bureau of Statistics in 2021 cited by the Ministry of Public Works and Housing's book of National Affordable Housing Program, Indonesia has at least 12.7 million housing backlogs calculated based on homeownership, which more than 90% are the numbers of low-income backlog. In compliance with Law Number 1 of 2011 regarding Housing and Settlement Areas, the state must protect its citizens through the provision of housing to fulfill their right to live in and inhabit decent and affordable housing. In response, the government of Indonesia has implemented several policies and programs to address the housing needs of the low-income. The policies aim to provide affordable housing options, improve living conditions, and reduce homelessness among the low-income population. Currently, although regulations exist for public or government-rented housing, there is no policy encouraging private build-to-rent housing, which in a way also adds to a widespread stigma that renting a house is a waste of money (Tafridj, 2021). However, the most commonly practiced program of Indonesia's low-income housing provision is through owner-occupied housing mortgage known as Facility of Liquidity for Housing Financing Program (FLPP), a scheme that majorly contributed to providing 99% of its budget in the form of single-family house (World Bank, 2020) in collaboration with private developers. The subsidy program, as one of low-income housing provision form, distributed funds of more than IDR 10 trillion for 102,665 units per 2020. However, the massive effort to ensure the low-income community homeownership fulfillment surfaced a new finding that possibly became a contradiction with the aim to fulfill backlog numbers: vacancy. In 2017, the Ministry of Public Works and Housing performed a sampling survey to find that at least 36,42% of Indonesia's FLPP-subsidized housing were vacant due to inadequate infrastructure, construction quality, and basic amenities (Argyantoro, 2017).

On the other hand, California, United States, also suffers from a high affordable housing shortage of 1.4 million units in 2022, which exceeded other states' deficit (Greenwald, 2022). The United States actually has a similar program of low-income housing that involves private developers known as Low-Income Housing Tax Credit (LIHTC), where United States Housing and Urban Development claimed the program as the most important resource of affordable housing. In tackling the affordable housing shortage, California actually has the largest volume of realization of LIHTC across the United States (Kimura, 2016). However, the process of allocating, awarding, and then claiming the LIHTC has been complained to be complex and lengthy (Keightly, 2023). The rapid growth of housing prices and costs in California also worsen this issue. The cost to develop a new affordable unit under the LIHTC program was reported to have increased by 13% in four years from 2016 to 2019 (Reid, 2020). Therefore, California continuously faces the great challenge to close its affordable housing gap.

In response to both situations of low-income housing provision and their issues, understanding the causes will hold lessons about inefficiencies in the overall housing market, a situation that proper public policy might redress (Struyk, 1988). As policies contain carefully crafted directives (Siddiki, 2014), it is also important to study how the policies are designed to help comprehend how this issue surfaced along the process. Therefore, this research will be focusing on identifying relationships between policy designs and location also quality in low-income housing through the comparison of Indonesia (FLPP) and California (LIHTC).

## **1.2 Academic Relevance**

Policies of low-income housing have been receiving increasing attention from a variety of researchers. However, the existing literature does not pay much attention specifically to the relationship between policy design with the location and quality of low-income housing. Many of the previous studies explored the different methods of housing provision for low-income and some of their evaluations. Earlier literature by Milligan et al. (2006) highlighted the impact of provision contrast between mass home ownership in Australia and the large social housing sector in the Netherlands. The result revealed that the two countries have similar patterns of affordability despite the difference in policy means used. The research also stated that Australia experienced worse affordability problems caused by higher reliance on private housing. Another piece of literature purposely evaluated the outcomes of government policies aiming to promote homeownership and its financial feasibility in Poland suggested that the subsidies have not worked very well (Radzimski, 2014). In the context of developing countries, a literature by Rondinelli (1990) stated that public housing, sites-and-services, slum upgrading, and government-assisted self-help programs have failed to provide sufficient housing to meet the needs of the poor. Therefore, programs in reducing costs of construction and increasing participation of the informal sector also private enterprise are needed as a supplement. A recent study by Odoyi and Riekkinen (2022) also evaluated housing policy for low-income earners through an analysis of the public housing policy strategies in Nigeria. Evidence from the research shows that housing policy strategical themes do not translate to affordable housing development and affordability for low-income earners. However, issues also occur in other countries such as China in low-income housing program as researched by Huang (2012). The study argued that the low-income housing program in China has so far failed to provide adequate housing for the poor due to the government's failure to define a clear mission, lack of commitment from local governments, and an exclusionary policy towards migrants.

Amid concerns regarding low-income housing provision, two interesting opposing issues also have been growing interests for studies: housing vacancy and supply shortage. First, researchers revealed some causes of the occurrence of vacancy. One of the research is by Struyk (1988) that aimed to understand the causes of vacancies in developing countries using a case study of Jordan,

which then comes to the conclusion that high-vacancy rate relates to overbuilding and the government policies that affect units to be held off the market rather than supply-increase. Hagen & Hansen (2010) acknowledged that natural vacancy rates differ between markets and submarkets. For instance, in the US, the rental vacancy fluctuated between 5-11% and the homeowner vacancy rate between 1-3% since 1968 (Huuhka, 2015). As mentioned previously, although the natural vacancy rate varies between countries, the vacancy finding in the FLPP scheme has exceeded 30% and is considerably concerning in comparison with the fluctuation example of the US. Second, the issue of supply shortage is related to the increasing cost in the housing market. A study by Alhajri (2022) revealed that high construction costs ranked the second most important challenge of affordable housing in the Kingdom of Saudi Arabia. Another research elaborated that the provision of land and capital facilities, scarcity of land in cities, and construction cost increases over the years are the major causes of high development costs (Ebekozi et al., 2021).

In addition to the opposing issues mentioned, it cannot be denied that low-income housing is also highly connected to physical issues such as location and quality. Research by Freemark and Steil (2022) mentioned that in United States metropolitan areas, subsidized housing are disproportionately situated in areas with limited access to resources. Similar research was done previously, aiming to examine the spatial patterns and location choices of affordable housing in Beijing. The study revealed that affordability patterns are obviously spatially clustered and affordable housing are mainly located at the urban fringe (Chen et al., 2015). In addition, construction quality was considered one of the main determinants of the subsidized housing satisfaction rate (Reza et al., 2022). Similar research also displayed the fact that with a broad range of low-income houses built, many were concerned due to poor building and construction quality (Nyakala et al., 2021).

Following the mentioned argument, this research aims to address the gap in the literature through a policy design analysis of current policies, introduced to location and quality of low-income housing included in the policies and existing issues mentioned in literature, then finally bring them together to identify the relationship. In this case, the context of policy design is focused on the concept of institutional grammar, an approach to assess the structure and content of the policy (Siddiki et al., 2022). As a developing country that is currently experiencing vacancy in subsidized housing, Indonesia's low-income housing policy of the Facility of Liquidity for Housing Finance (FLPP) Program is chosen to function as a case study. On the other hand, the program of California's Low Income Housing Tax Credit (LIHTC) is known to have a large realization number in the midst of their high affordable housing shortage. Therefore, this study is using the case of Indonesia in comparison with California to reveal and learn from both programs.

### **1.3. Research problem statement**

As elaborated in the motivation and academic relevance sections, the need of identifying relationships between designs of policy, location and quality of low-income housing has clear



relevance to the real estate sector including the public, private, and societal matters. The research aim of this study is to fill the gap in the literature through policy design analysis of low-income housing policy using a comparative study between FLPP and LIHTC, introduced to location and quality issues then finally bring them together to identify the relationships between the policy design, location and quality of low-income housing. This goal is supported by the following research questions:

**Central research question:**

*How does policy design relate to the location and quality of low-income housing?*

To answer this research question, the study will be structured into three research sub-questions.

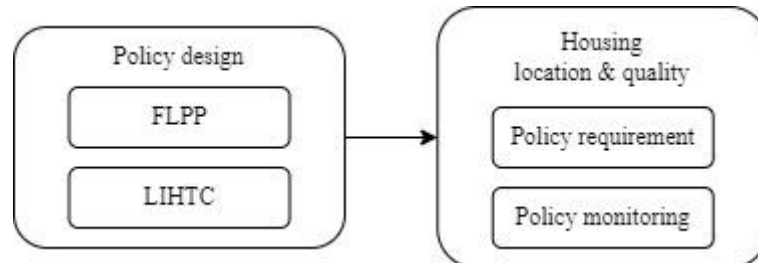
**Sub-question 1:** *What is the design of policies in the context of institutional grammar governing FLPP and LIHTC?*

**Sub-question 2:** *What are the requirements of location and quality in FLPP and LIHTC?*

**Sub-question 3:** *What are the monitoring programs in FLPP and LIHTC?*

The first sub-question will be answered through an assessment of policy designs based on institutional grammar codes of housing subsidy policies of FLPP and LIHTC as supporting comparative study. The second and third sub-question will be answered by content analysis in combination with analysis results of the first sub-question to identify any relationships in between.

**Figure 1.** *Conceptual Model*



The remainder of this paper is organized as follows. Section 2 describes the conceptual model and Section 3 mentions the empirical context followed by Section 4 which explains about data and methodology used to investigate the previously identified research questions. Section 5 displays the results while Section 6 and Section 7 in order discusses the context of implications for existing literature and concludes the research contribution as an insight for future study and recommendation for policymakers.

**2. THEORY**

**2.1 Provision of Low-Income Housing**

Affordable housing for the low-income has been viewed as a concept of housing cost in relation to households' income (Ibem and Aduwo, 2013). In this case, the government as a public agency in

many countries holds the responsibility to ensure its provision as a part of housing rights fulfillment specifically for low-income households. There are various ways in providing affordable housing, but according to World Bank (2020), the government as a public sector used to fill the role of the builder who directly constructed and delivered housing to meet demand. However, the role evolved to enabler and regulator, when the government retreated from direct provision but started to focus on facilitating the private sector to deliver housing effectively and to assist the poorest segment of the population. The shift is believed to happen due to many public housing developments have been allowed to decline due to inconsistently applied standards and insufficiently-funded maintenance (Perry-Brown, 2020). Such argument was also supported by a discussion mentioning that public agencies are not designed to be real estate developers, therefore due to institutional constraints, government-built housing suffered from deterioration due to quality sustainability and maintenance backlog concerns (Schuetz, 2021). For that reason, rather than public production, policies have sought to stimulate the production of affordable housing in the private market with both private and public sources of finance (Kleit and Page, 2014). The involvement of the private sector also brings a variety of provisions, such as the provision of incentives to developers, the provision of housing subsidies or incentives to households, and the decentralization of authority and responsibility (Dania et al., 2021).

However, the involvement of the private sector increases the exposure to principal-agent problems. It is said that the two key elements of principal-agent model as it has been applied to the bureaucracy are goal conflict and information asymmetry (Waterman and Meier, 1998). The principal-agent model also identifies two major difficulties when a principal contracts with a set of agents under asymmetric information, namely moral hazard (*hidden action*) and adverse selection (*hidden knowledge*) (Lane, 2013). A moral hazard problem is when the principal does not know for sure if the agent will really do his or her best when delegated certain tasks, while an adverse selection problem is when the principal does not have sufficient information on the abilities of potential agents to find the one best suited to do the task (Braun and Guston, 2003). In this case, the principal-agent problem applies to the risks exposed to the government in providing subsidies to private developers. The risks include the 'leaking' of public assets and subsidies also inefficient and poor delivery of projects (Benedict et al., 2022). Gruis and Bortel (2019) also mentioned that the potential risks could relate to the question of how private sectors are committed to the affordable market, as well as how the quality and sustainability of housing will be safeguarded in the context of increasingly financial return-driven behavior of the actors involved. In addition, the mitigation for those risks is through strong due diligence and oversight of project delivery by the government in the form of requirement and implementation review or monitoring. Minimum requirement regulation is believed to be a promising regulatory tool (Zheng et al., 2021), and post-implementation review provides the opportunity to assess the extent to which –by some agreed point- policy objectives have been met (Hudson et al., 2019).

## **2.2 Location and Quality of Low-Income Housing**

Dwijendra (2013) assessed the strengths and weaknesses of affordable housing projects both in public and private involvement. In the context of location, his research stated that public scheme is likely to have lower cost, larger land plot size with lower land prices, and more complete infrastructure and services. On the other hand, private projects tend to have higher costs, strategic locations with better levels of public facilities, and an image of the living environment. Simultaneously, the quality of public projects has better quality of building material and better design compared to the private scheme. Delegation of development from the government to private developers in the provision of low-income may result in a mix of strengths and weaknesses from both sides. For instance, research by Mukhija (2004) found that a certain affordable housing project developed by a private developer partnered with the government faced a lawsuit filed by the residents claiming that their homes were not up to the promised higher standard proven by cracks in their walls and seepage in the ceilings.

Woetzel (2014) highlighted that nothing will affect the success of affordable housing as much as an appropriate site location (Sharghi, et al., 2022). However, Zhou et al. (2013) found that residents living in subsidized housing have experienced the spatial mismatch problem in the form of passive job-housing mismatch due to the inability to afford housing in the city center and being forced to move to the city outskirts. Unfortunately, this location issue happened to the FLPP program. An expenditure review by World Bank for Indonesia in 2020 confirmed that the poor location of subsidized housing units failed to comply with demand for housing in urban areas, proven by the fact that 57% of subsidized housing are located in rural areas in 2017. In contrast, different location issues occurred in the LIHTC system. According to Foyt (2018), developers face challenges in choosing locations that satisfy requirements and serve to further the goals of LIHTC program due to two points. First, developments in median area neighborhoods fail to promote the underlying goal of the program to offer below-market rents to low-income families. In the midst of that, resistance to development in both low- and high-opportunity neighborhoods impedes construction in the remaining neighborhoods.

Additionally, housing quality affects the quality of life of residents through impacts on health and comfort and through the costs of maintenance and use, therefore it becomes the subject of myriad regulatory regimes (Liu et al., 2019). However, housing under the FLPP turned out to be suffering from quality issues. The expenditure review by World Bank for Indonesia in 2020 also stated that 55,4% of subsidized housing units built by the developer does not meet the minimum requirements of the regulation causing low quality as one of the factors in inducing vacancy. Argyantoro (2017) also mentioned that issues of construction quality and inadequate infrastructure and basic amenities are the main cause of - vacancy in subsidized housing in Indonesia. Following

the strengths and weaknesses mentioned by Dwijendra (2013), he also elaborated that low enforcement of building standards and regulations is a significant factor that influences the quality of projects. The matter of cost mentioned in the strengths and weaknesses explanation actually happened to the LIHTC program. LIHTC construction costs are about 20 percent more per square foot than for medium-quality market-based projects to follow all the requirements (Edwards and Calder, 2017). Affordable Housing Finance did a survey regarding LIHTC project costs where one of their interviews mentioned that the quality requirements pushed the developers to add ‘just one more thing’, to be greener; more accessible; more deeply affordable; more socially responsive, which in some places like California have become so competitive that things intended as optional become mandatory.

### 2.3 Policy Design

Similar to other programs in general, the policy is likely to play a role in this matter. The act of devising policy alternatives to meet stated government goals, rises the importance of policy design (Mukherjee et al., 2021). Howlett (2014) defined that policy design involves the effort, to more or less, systematically develop efficient and effective policies that are likely to succeed in attaining their desired goals or aims within a specific policy context. Therefore, it is also essential to review how the regulations of both FLPP and LIHTC differ or agree with each other. A report by OECD in 2000 gave three suggestions regarding compliance-oriented regulatory design as shown in Table 1 below. To summarize, the essentials of policy design include alignment with stakeholder needs, incentives and disincentives, feasibility and practicality, monitoring and evaluation mechanisms, and communication.

**Table 1.** *Compliance-oriented Regulatory Design Suggestions*

1. Result-Oriented Policy Design	<ul style="list-style-type: none"> <li>a. Problem identification and analysis</li> <li>b. Identify feasible policy objectives</li> <li>c. Consider potential policy options including both regulation and alternatives to regulation</li> <li>d. Design regulation to maximize the possibility for compliance</li> </ul>
2. Compliance-Oriented Regulatory Design	<ul style="list-style-type: none"> <li>a. Provide rewards and incentives for high/voluntary compliance</li> <li>b. Nurture compliance capacity in business</li> <li>c. Dialogue and restorative justice when voluntary compliance fails</li> <li>d. Responsive enforcement when restorative justice fails</li> </ul>
3. Evaluate Regulatory Effectiveness	<ul style="list-style-type: none"> <li>a. Monitor for non-compliance</li> <li>b. Monitor the impacts of regulation on outcomes and use this information to continuously improve regulatory performance</li> </ul>

	c. Evaluate the performance of regulatory agencies by reference to the impact they are having on compliance outcomes
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Source: OECD, 2000.

## 2.4 Expectations

Reflecting on existing theory leads this research to observe further the policy design of location and quality in subsidized housing through a comparative study between FLPP and LIHTC. Firstly, policy design intends to develop efficient and effective policies that are likely to succeed in attaining their desired goals or aims within a specific policy context Howlett (2014). This study expected that, first, the policy design in the context of institutional grammar in LIHTC to be well established than FLPP, considering the previous findings that developing countries typically have more complexity in institutional and resource constraints. Second, understanding the fact that FLPP suffers from poor results (World Bank, 2020) while LIHTC is in difficulty to fulfill the requirements (Foyt, 2018), it is expected that LIHTC has stronger requirements compared to FLPP. Third, following the previous expectation, it is also expected that FLPP lack in monitoring. However, as there were no certain studies regarding monitoring in LIHTC, the third expectation for the program is unknown and will be explored through this research.

## 3. EMPIRICAL CONTEXT

This research focused on Indonesia's subsidized housing program, the Facility of Liquidity for Housing Financing Program (FLPP), and California's Low Income Housing Tax Credit (LIHTC) for comparison to identify how policy design relates to location and quality of low-income housing.

FLPP is one of the housing subsidy schemes in Indonesia to provide housing for low-income communities. The program was initiated by the Ministry of Housing and supported by the Ministry of Finance in 2010 in the form of funds to assist low-income communities in the context of owning a house. Following the merger between the Ministry of Public Works and the Ministry of Public Housing, an agency named Housing Finance Fund Management Center (PPDPP) was formed and assigned in 2016. However, by the end of 2021, the baton was handed over to Public Housing Savings Management (BP TAPERA) to continue the distribution and management of the funds.

Similar to Indonesia, the United States has a variety of programs to provide affordable housing. LIHTC is one of the known and claimed to be the most important resource by the United States Housing and Urban Development. The program was created in 1986 and works with the scheme of providing tax incentives to encourage developers to create affordable housing. State and local LIHTC-allocating agencies are given annual budget authority to issue tax credits for the acquisition, rehabilitation, or new construction of rental housing targeted to lower-income households.

## 4. DATA AND METHOD

### 4.1 Research Methodology

This research uses a comparative method, which is believed to provide a better understanding of factors and processes of public policy through comparisons. Although cross-nation comparative study in policy analysis is sensitive to the different dynamic between democracies and nation's constitutions, it allows policy-making stakeholders to determine applicable combination of conditions and outcome in considering policy effectivity (Thomann, 2020). This method shall lead to the knowledge and understanding of similarities and differences among policies and their outcomes (Tatiana-Camelia, 2019) in the form of statistical analysis, historical analysis, and document or content analysis. In this case, the paper aimed to do the comparison through document or content analysis in the form of policy design. Policy design involves the effort to more or less systematically develop efficient and effective policies that are likely to succeed in attaining their desired goals or aims within a specific policy context (Howlett, 2014). May (1991) mentioned that an important perspective of policy design writing is the emphasis on matching the content of a given policy to the political context in which the policy is formulated and implemented. The content of public policy was then put into a rule typology by Ostrom (2005), categorizing public policies according to their functional properties. The rule includes position rules, choice rules, information rules, and payoff rules. Policy content is fundamentally captured in language and premise on the idea that conceptual understanding follows from the measurement of policy language (Siddiki and Curley, 2022).

Crawford and Ostrom (2005) brought an innovation to categorize and relate the content of policy design through institutional grammar to reveal the internal structure of policies by providing a detailed depiction of what actions are allowed, permitted, and forbidden under specified conditions and often with specific sanctions for actions. Basurto et al. (2010) then enhanced institutional grammar into an analytical tool for policy design analysis that is used for this research. Institutional Grammar Tool is applied to code the regulatory documents governing FLPP in Indonesia and LIHTC in California. In using this tool, data are collected on 'institutional statements' elaborated as the shared linguistic constraint or opportunity that prescribes, permits, or advises actions or outcomes for actors (both individual and corporate). Institutional statements are divided into two syntaxes: regulative statements and constitutive statements. Regulative statements are defined as statements that prescribe specific activity for actors within particular constraints, while constitutive statements are the parameterized features such as the definition of positions and entities (Bushouse et al., 2023). In detail, the regulative statements included six components: Attribute (A), oBject (B), Deontic (D), aIm (I), Condition (C), and Or else (O). Furthermore, the six institutional statements could be identified as strategies (AIC/ABIC), norms (ADIC/ABDIC), and rules (ADICO/ABDICO) (Siddiki et al, 2011).

**Table 2.** *Institutional Grammar Tool – Regulative Statements Components*

<b>Components</b>	<b>Definition</b>
Attribute (A)	To whom the institutional statement applies (e.g. individual, group of individuals, organization, etc.)
oBject (B)	The receiver of the action
Deontic (D)	Prescriptive operator and indicates whether the action is permitted, obliged, or forbidden (e.g. may, must, must not, etc.)
aIm (I)	The action contained in the statement and to which the Deontic applied, it usually consists of all non-Deontic verbs in the statement
Condition (C)	Determine under which circumstances the statement is appropriate or relevant for application (e.g. when, where, how)
Or else (O)	Punitive action for not following the rule

*Source: Siddiki et al., 2011.*

The regulatory documents of each policy were coded using the Institutional Grammar Tool as mentioned above. The codes were then summarized into counts of strategies, norms, and rules and modal of the components. Furthermore, the process moved to the analysis of categorizing institutional statements into the context of ‘requirement’ and ‘monitoring’ regarding location and quality of housing as the focus of the research. The classification then was used for comparison to identify the differences between FLPP and LIHTC policies.

#### **4.2 Data Collection**

This research used policy documents of both FLPP and LIHTC in the form of main regulation and compliance guide. Ten policy documents are used in the research, collected from governmental institutions associated with the housing policy of FLPP and LIHTC. The six policy documents of FLPP were retrieved from the websites of the government, specifically related to Indonesia’s Ministry of Public Works and Housing, while the policy document of LIHTC was retrieved from the website of the California State Treasurer’s Office. The research criteria in the data collection were that the policy documents had to be published by the government as a main source of information in the context of related programs.

**Table 3.** *Policy Documents*

<b>Data Source</b>
<b>FLPP</b> <ul style="list-style-type: none"><li>• Undang-Undang No.1 Tahun 2021 – Housing and Residential Areas</li><li>• PERMEN PUPR No.35 Tahun 2021 – Housing Financing Facilities and Assistance for Low-Income Communities</li><li>• KEPMEN PUPR No.22/KPTS/M/2023 – Amount of Income of Low-Income Communities and the Floor Area Limits of Public Houses and Self-Help Homes</li></ul>

<b>Data Source</b>
<ul style="list-style-type: none"> <li>• KEPMEN PUPR No.242/KPTS/M/2020 – Income Limits for Credit/Financing Target Group of Subsidized-Home Ownership, Interest Rate/Margin Subsidized-Financing, Subsidy Period Length of Home Ownership Credit/Finance, Home Selling Price Limit of General Site and Public Flat House Units, Land Area Limits and Floor Area of Public Housing Site, Floor area of General Flat Units and Amount of Subsidy for Housing Assistance</li> <li>• PP No.64 Tahun 2016 – Housing Development for Low-Income Communities</li> <li>• KEPMEN KIMPRASWIL No. 403/KPTS/M/2002– Technical Guidelines for the Construction of Healthy Simple Houses</li> </ul> <p><b>LIHTC</b></p> <ul style="list-style-type: none"> <li>• California Qualified Allocation Plan February 2023</li> </ul>

*Source: Author, 2023.*

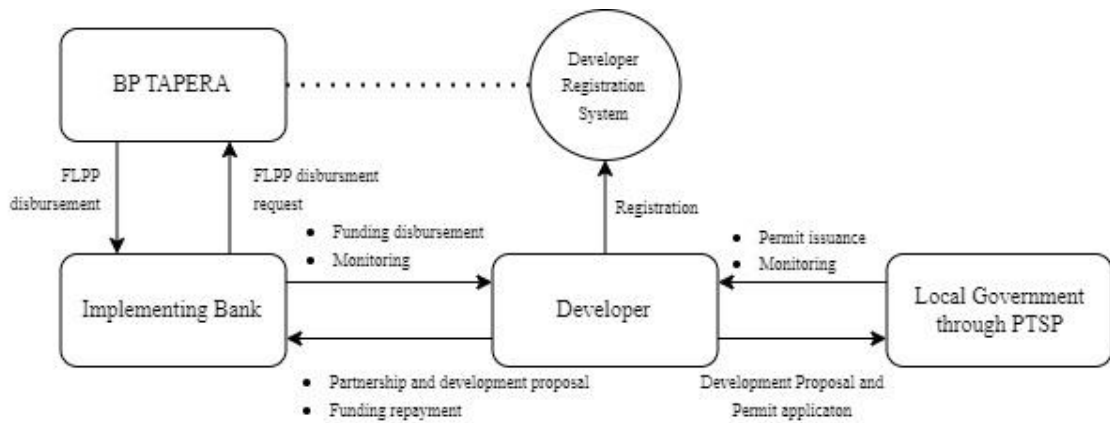
## **5. RESULTS**

### **5.1 Provision Process**

Before going further into the context of location and quality in the policies, it is necessary to understand the provisioning process of the two programs. The process of FLPP in low-income housing is shown in Figure 2. It begins with BP TAPERA as the governmental agency in charge of the FLPP fund management. This fund management was previously the responsibility of PPDPP (Housing Financing Fund Management) under the Ministry of Public Works and Housing. However, currently, all the responsibilities and systems have been transferred to BP TAPERA including the Developer Registration System. BP TAPERA works in partnership with several Implementing Banks to distribute the FLPP fund, both for development and homeownership loan. At the same time, developers who want to develop FLPP housing also have to be in partnership with one of the implementing banks and have registered in the Developer Registration System (SIRENG). To prepare for low-income housing development, a developer need to submit a development proposal following the requirements and apply for permits to the local government through a work unit called PTSP (Integrated One-Stop Service Agency). After the issuance of the permits, the developer then needs to submit a development proposal to one of the implementing banks they collaborate with. After the review, if the proposal receives approval, the implementing bank will request a disbursement from BP TAPERA and transfer the fund to the developer in the proposed phases. The developer then has the responsibility to repay the development funding besides the FLPP incentives. In the process and end of the development, both the local government and the implementing bank also need to do the monitoring.



**Figure 2. FLPP Rewarding Process**

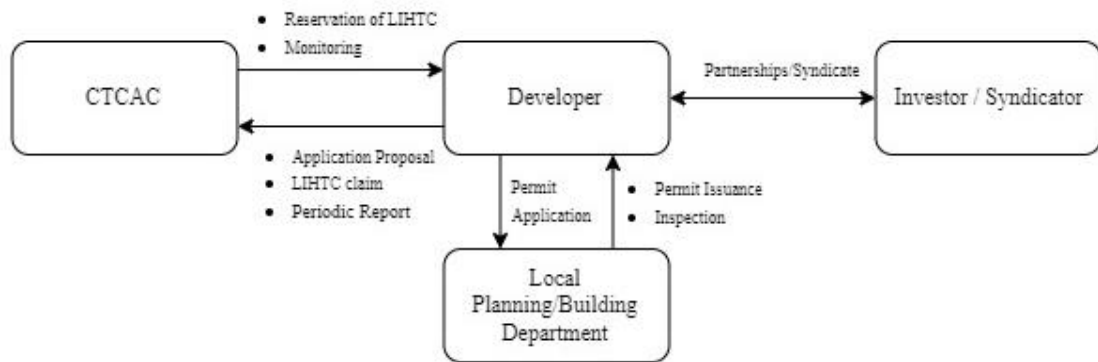


*Source: Analysis, 2023.*

In LIHTC, the provisioning process goes differently as shown in Figure 3. To prepare for the development of low-income housing, a developer has to submit a permit application to the local planning/building department. If approved, the local planning/building department will issue the permit and they will be responsible for inspection of the development. To be able to build, the developer has to submit an application proposal to the CTCAC following the requirements. All proposals are being scored based on the requirements, meaning that every project is heavily scrutinized in all aspects. For approved projects, the CTCAC will issue a reservation of LIHTC to the developer. The developer then may form partnerships or syndicate with investors or syndicators to utilize the tax credit. After the project has been developed and placed in service, the developer then is able to claim for the tax credit. In this case, CTCAC is responsible to monitor the project they approved while the developer is also responsible to submit periodic reports during and after the development.

In comparison, both FLPP and LIHTC obviously have to deal with permit application related to development with the local government department. However, there are two differences that need to be highlighted here. First, the developers mainly deal with the implementing bank to receive the FLPP incentives, not straightly in contact with BP TAPERA as the core of FLPP fund management. Meanwhile, developers in the LIHTC system mainly deal with the CTCAC to receive the tax credit. Second, the process of proposal and development in FLPP actually does not differ much from housing in general. This process indicates that almost all developers are able to develop low-income housing while it works more like a competition for developers in the LIHTC system due to the scoring system. To understand this further, the elaboration of requirements in the following paragraphs is likely to bring to light this difference.

**Figure 3.** LIHTC Rewarding Process



Source: Analysis, 2023.

## 5.2 Policy Design

In the concept of policy design, differentiating between regulative and constitutive statements helps to understand the balance of both appearing in the policy to address its clarity as they aim differently. Regulative statements establish guidelines and boundaries for individuals and organizations to follow. On the other hand, constitutive statements establish norms, values, and principles to guide behavior. To support the effectiveness of the policy, a policy should be well-balanced including both regulative and constitutive statements. In this research, the coding resulted in 271 institutional statements for FLPP, consisting of 188 (69%) regulative statements and 83 (31%) constitutive statements. As for LIHTC, the coding resulted in 179 institutional statements, consisting of 73 (41%) regulative statements and 106 (59%) constitutive statements as shown in Table 4. This result also addressed that in scattered policy documents, the FLPP policy mentions regulative statements more than constitutive statements. Differently, in one policy document, the LIHTC policy tends to mention constitutive statements more than regulative statements. Looking at the composition, LIHTC is more likely to have a better balance in including regulative and constitutive statements.

Focusing on the regulative statements, the institutional dynamics can be seen from the composition strategies, norms, and rules. The policy of FLPP mostly consists of *Strategies*, which is a key concept referring to specific courses of action or approaches adopted by actors to achieve some objectives. In the structure of the sentence, *Strategies* does not include Deontic, a component that works as a prescriptive indicating whether the sentence is a permission, obligation, or restriction. On the other hand, LIHTC policy is shown to be mostly containing *Norms*, prescriptions that tend to be enforced by the participants through internally and externally imposed costs and inducements. Similarly, both policies also showed minimal statements containing *Or else* as a punitive sanction associated with non-compliance with the policy directive. However, according to Siddiki et al.

(2012), as all statements in formal institutions are regulations, they could be interpreted as rules because there is an implicit “Or else” present.

**Table 4.** *Coded Institutional Statements Count*

<i>Institutional Statements</i>	<b>FLPP</b>	<b>LIHTC</b>
<b>Regulative</b>	<b>188 (69%)</b>	<b>73 (41%)</b>
Strategies (AIC/ABIC)	157 (84%)	9 (12%)
Norms (ADIC/ABDIC)	29 (18%)	63 (86%)
Rules (ADICO/ABDICO)	2 (1%)	1 (1%)
<b>Constitutive</b>	<b>83 (31%)</b>	<b>106 (59%)</b>
<b>Total</b>	<b>271</b>	<b>179</b>

*Source: Analysis, 2023.*

This research then identified the modal Attributes, aIm, and Deontics as shown in Table 5. However, due to the wide range of aIm and Conditions obtained from the policy documents also very few mention of Or else, thus, the descriptive summary does not include them. Firstly, the modal Attributes between FLPP and LIHTC shows that the policies regulate behavior or guide the actions of different person. In FLPP, Badan Hukum (*legal entity –referring to the developer*) is the most commonly listed in the regulations for FLPP, followed by Bank Pelaksana (*executing bank*) then Satker (*work unit –of government institution*). For LIHTC, the most commonly listed Attributes are CTCAC (*California Tax Credit Allocation Committee*), followed by Committee then Applicant (*referring to the developer*). As can be seen, FLPP mostly regulates the behavior or action of the developer while it goes to CTCAC or Committee as the responsible institution of the program for LIHTC.

Secondly, the modal oBjects shows the motivations and desired outcomes of the policies. In FLPP, Perumahan MBR (*low-income housing*) is the most commonly listed in the regulations for FLPP, followed by SBUM (*down payment subsidies*) and then Bangunan (*building*). As for LIHTC, the most commonly listed oBjects is Project, followed by Income then Committee. In this case, both mostly control the main goal, which is the low-income housing or project.

Finally, the modal Deontics indicates how the policies put emphasis on the statements. In FLPP, Dapat (*may*) is the most commonly used in the regulations for FLPP, followed by Harus (*must*) then Tidak perlu (*may not*). Meanwhile, for LIHTC, Shall is the most commonly used Deontics, followed by May then Must. The difference displays that LIHTC tends to write the statements using obligation while FLPP mostly uses permission. The use of more obligations means that the policy signifies more mandatory action or behavior than just grants authorization or consent as in the context of permission. Therefore, it can be interpreted that LIHTC, compared to FLPP, stands as a more restrictive regulation, limiting more freedom of action or decision-making.

**Table 5. Institutional Statements Summary**

	<b>FLPP</b>	<b>LIHTC</b>
<b>Attributes</b>	1. Badan Hukum ( <i>legal entity</i> )	1. CTCAC
	2. Bank Pelaksana ( <i>implementing bank</i> )	2. Committee
	3. Satker ( <i>work unit</i> )	3. Applicant
<b>oBjects</b>	1. Perumahan MBR ( <i>low-income housing</i> )	1. Project
	2. SBUM ( <i>down payment subsidies</i> )	2. Income
	3. Bangunan ( <i>building</i> )	3. Committee
<b>Deontic</b>	1. Dapat ( <i>may</i> )	1. Shall
	2. Harus ( <i>must</i> )	2. May
	3. Tidak perlu ( <i>may not</i> )	3. Must

Source: Analysis, 2023.

### 5.3 Requirements for Location and Quality

Firstly, this section starts with a discussion of the requirement for location. In FLPP, the regulation generally explains that the development is required to be in accordance with the regional spatial planning with a size ranging from 0.5 to 5 hectares in one location designated for row houses. Aligned location with the regional spatial planning eliminates the need for location permits in the development preparation. Additionally, the location-choosing aspect includes the requirement to be located in a neighborhood that has the complete environmental infrastructure, public utilities, and social facilities. In the development proposal, the developer is required to include planning and design of houses; planning and design of infrastructure, facilities, and public utilities; land acquisition; and fulfillment of permits. In this case, it means that the developer has to own the land proposed for the development. The required permits to be fulfilled include site plan approval, declaration letter of environmental management and monitoring capability, building permit, and approval of technical plan documents.

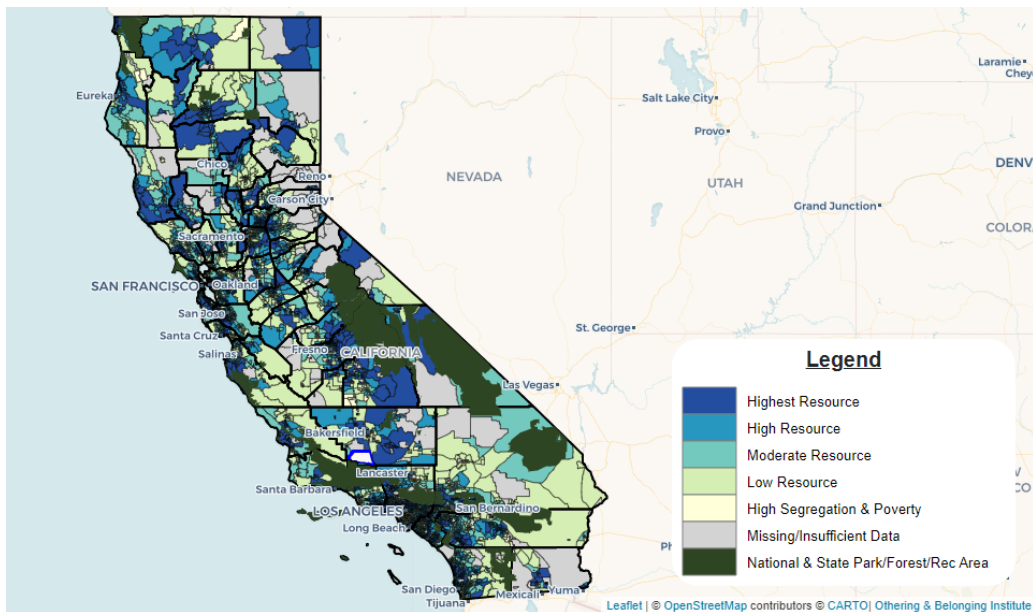
On the other hand, LIHTC policy turned out to list more detail in writing the requirement. Starting from then location of LIHTC project development, the policy regulates it through a map or series of maps approved annually by the Committee as the CTCAC/HCD (*Housing and Community Development*) Opportunity Area Map as shown in Figure 4. This opportunity map applies as the basis of scoring in the application competitions as mentioned in Section 10325 of Qualified Action Plan. Moreover. The policy also regulates the location of the project through Site Amenities criteria through the scoring criteria. The policy mainly determines the distance of the site to certain amenities. For instance,

*“a development wherein at least 25% of the Low-Income Unites (or, for Special Needs housing type, at least 25% of the Large Family Low-Income Units) shall be three bedroom or larger units,*

*the site is within 1/4 mile of a public elementary school; 1/2 mile of a public middle school; or one (1) mile of a public high school, adult education campus of a school district, or community college (an additional 1/2 mile for each public school type for Rural set-aside projects) and that the site is within the attendance area of that school or campus – 3 points” (QAP Section 10325 (c)(4)(A)5)*

In addition, in the Application Requirements, the applicants are required to include site layout, unique features, and surrounding areas on the Application documents. An interesting point made in the policy is that it requires Market Studies to establish both the need and demand for the proposed project, which guidelines are distributed by the Committee.

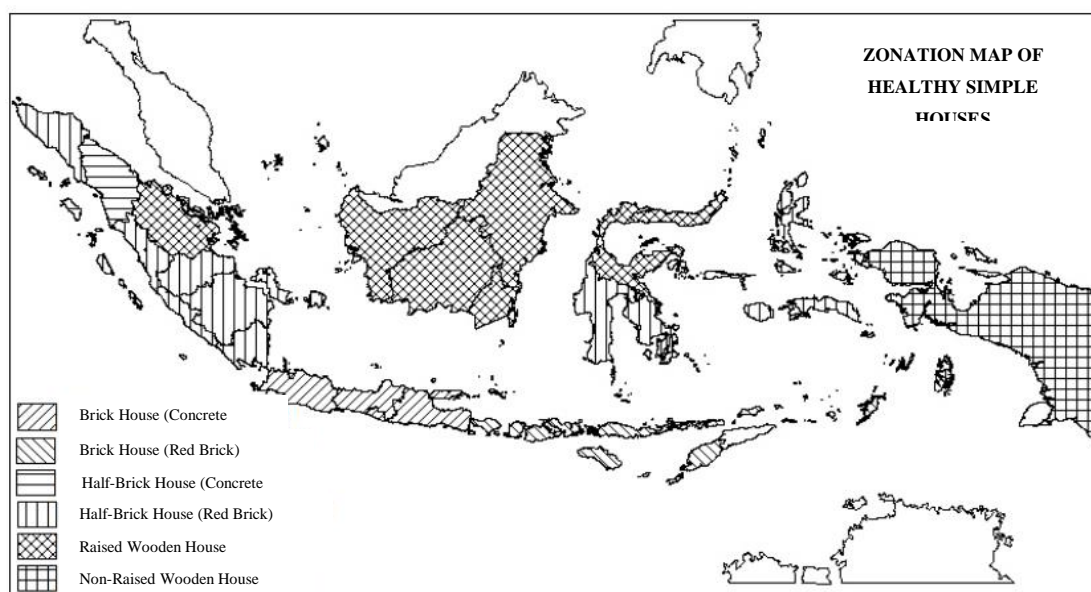
**Figure 4.** CTCAC/HCD Opportunity Area Map



Source: <https://www.treasurer.ca.gov/ctcac/opportunity.asp>

Regarding the quality, the FLPP policy does not set up specific requirements for the development of low-income housing and refers to existing general guidelines known as Pedoman Teknis Pembangunan Rumah Sederhana Sehat (*Technical Guidelines for Construction of Healthy Simple Houses*). Interestingly, this guideline begins with an alternative housing typology using the material of the wall as the basis for every region as shown in Figure 5 below. The guidelines include the standard of size, lighting, ventilation, building foundation and structure, roof, and environmental requirements. However, the environmental requirements are not elaborated and refer to other existing guidelines of Pedoman Teknis Pembangunan Perumahan Sederhana Tidak Bersusun (*Technical Guidelines for Construction of Non-Vertical Simple Housing*) and Pedoman Teknis Pembangunan Perumahan Sangat Sederhana (*Technical Guidelines for Construction of Very Simple Housing*).

**Figure 5.** *Zonation Map of Healthy Simple Houses*



*Source:* KEPMEN KIMPRASWIL No. 403.KPTS/M/2002 *Technical Guidelines for Construction of Healthy Simple Houses*

Meanwhile, the LIHTC also regulates the construction and design of the project. In the Application Requirements, the applicants are required to include construction & design description and architectural drawings (including a site plan, building elevations, and unit floor plans) on the Application documents. One of the Basic Thresholds mentioned in the policy is the Minimum construction standards. The specification includes Energy Efficiency, Landscaping, Roofs, Exterior doors, Appliances, Window coverings, Water heater, Floor coverings, All fiberglass-based insulation, Consistency to California State law regarding the on-site manager's unit, and adherence to California Building Code.

Interestingly, the LIHTC policy includes Readiness to proceed as a part of the scoring system. Points will be given to projects that document enforceable financing commitment(s) as defined in Section 10235(f)(3) for all construction financing and demonstrate construction can commence within 180 days or 194 days of the Credit Reservation as assigned by the Executive Director and documented by the requirements. Furthermore, applicants who did not receive maximum points in the Readiness to Proceed criteria shall provide the Committee with a completed updated application form (no later than 180 or 194 days, as applicable) and start construction no later than 12 months following Credit reservation. Failure to start construction within 12 months following the Credit reservation may result in rescission of Credit reservation.

Requirement-wise, both policies have similarities and differences. The similarities between policies are that both required proposals or application processes for low-income housing development and general housing location and quality requirements are included. However, the

differences are that FLPP policy tends to mention less-detailed requirements compared to LIHTC and refers to other general policy documents. For instance, in FLPP, it is stated that ‘low-income housing development has to be in accordance with the standard established by the Minister’ but no further detail is written. Some requirements included in LIHTC policy are also not listed in FLPP such as market studies and readiness to proceed. Therefore, the comparison of requirements for location and quality in FLPP and LIHTC is summarized in Table 6 below.

**Table 6. Requirements Comparison**

<b>Location</b>		<b>Quality</b>	
<b>FLPP</b>	<b>LIHTC</b>	<b>FLPP</b>	<b>LIHTC</b>
<p>1. Location in accordance with regional spatial planning (<i>Rencana Tata Ruang Wilayah</i>), if so, location permit application is not required.</p> <p>2. Location has complete environmental infrastructure, public and social facilities</p> <p>3. Proposing developer has the ownership of the land for development</p>	<p>1. Location regulated through CTCAC/HCD Opportunity Map</p> <p>2. Provision of standard distance from development location to a list of site amenities</p> <p>3. Land ownership is not a requirement</p>	<p>1. Low-income housing quality requirement refer to existing general guidelines</p> <p>2. Construction standards include size, lighting, ventilation, building foundation and structure, roof, and environmental requirements</p> <p>3. Environmental requirements has no elaboration; refer to existing general guidelines</p>	<p>1. Construction &amp; design and architectural drawings are required for application</p> <p>2. Minimum construction standards include energy efficiency, landscaping, roads, exterior doors, appliances, window coverings, water heater, floor coverings, all fiberglass-based insulation, also on-site manager's unit and adherence to California Building Code</p> <p>3. Provision of a list of site amenities</p>



<b>Location</b>		<b>Quality</b>	
<b>FLPP</b>	<b>LIHTC</b>	<b>FLPP</b>	<b>LIHTC</b>
4. Fulfill building permits	4. Issuance of building permits is required to fulfill Readiness to Proceed scoring	4. Issued building permit means developer is allowed to start construction	4. Readiness to proceed is a part of the scoring system including financing commitment and time
5. Market studies is not a requirement	5. Market studies is required to establish both need and demand supporting the proposed project		

## **5.4 Quality Monitoring**

In the context of quality monitoring, the FLPP policy setup inspection of implementation documents and final inspection of construction work as a part of Construction regulation. The Local Government is responsible for construction supervision in the form of construction management including cost, quality, and time control of the construction as well as inspection of functional qualification. However, the detail of monitoring only refers to other existing policies regarding building construction. In general, the policy also regulates the supervision and monitoring of low-income housing development to be carried out following the provisions of housing and settlement legislation.

On the other hand, LIHTC policy mentions several points regarding monitoring matters. Firstly, in the Application Selection Criteria, the policy set Management Company and its experience are included in the scoring system. It is also stated that the general partner or property co-management entity must obtain training in CTCAC ownership/management, project operations, on-site certification training in federal fair housing law, and manager certification in IRS Section 42 program requirements from a CTCAC-approved, nationally recognized entity. Second, applicants receiving preliminary reservations are also required to submit a performance deposit. To receive a full refund of the performance deposit, the applicant is required to place the project in service under the time limits permitted, qualify the project as a low-income housing project, meet all the conditions, and certify that the Tax Credits allocated will be claimed, and execute a regulatory agreement for the project. Third, the Committee also charges a compliance monitoring fee per low-income unit to cover the costs associated with the compliance monitoring throughout the extended-use period.

Fourth, the policy also regulates the placed-in-service applications. Within one year of completing construction of the proposed project, the project owner shall submit documentation including where CTCAC then determines whether all conditions of the reservation have been met before issuing tax forms. The submission includes twenty-four items in detail, including certificates of occupancy for each building in the project, itemized breakdown of placed-in-service dates for each building, photographs of the completed building(s), a list and color photographs of all amenities provided at the project site committed in the Tax Credit application, certification of buildings compliance to all applicable fair housing laws, evidence that the project is in compliance with the requirements, etc. Finally, the policy organizes compliance monitoring procedure. This procedure regulation includes annual record keeping of each qualified low-income building by the project owner; record retention by the Committee and owners; certification requirements; status report, file, and on site physical inspection by the Committee; notification of noncompliance; correction period; and IRS and FTB notification.

In the context of monitoring, both policies actually have significant differences. The first difference is that, in FLPP, the agency in charge of the proposal phase is PTSP while Local Government (referring to the mayor/regent) is responsible for the monitoring. On the other hand, both application and monitoring are the responsibilities of CTCAC in LIHTC. There are also some monitoring aspects in LIHTC not available in FLPP, such as management company, performance deposit, and monitoring compliance. Therefore, comparison of monitoring for quality in FLPP and LIHTC is summarized on Table 7 below.

**Table 7. Quality Monitoring Comparison**

<b>Quality</b>	
<b>FLPP</b>	<b>LIHTC</b>
<ol style="list-style-type: none"> <li>1. Developer is required to inspect the construction implementation document that has been approved by PTSP as a part of the construction process</li> <li>2. Local Government is responsible to monitor construction work in accordance with the provisions of housing and settlement legislation</li> <li>3. Detail of monitoring tasks refers to the existing policy regarding general building construction</li> <li>4. Management company is not a requirement</li> </ol>	<ol style="list-style-type: none"> <li>1. Project quality monitoring is included in Readiness to proceed scoring of the initial application and Placed-in-service application</li> <li>2. CTCAC is responsible for monitoring visits, ensuring project compliance</li> <li>3. Compliance monitoring procedure includes annual record keeping of each qualified low-income building by the project owner; record retention by Committee and project owners; certification requirements; status report, file and on-site physical inspection by Committee; notification of noncompliance; correction period; and IRS and FTB notification</li> <li>4. Management company is required in the application who works as a part of post-development monitoring; has to be trained or experienced specifically in CTCAC project</li> </ol>

<b>Quality</b>	
<b>FLPP</b>	<b>LIHTC</b>
5. Performance deposit is not a requirement	5. Performance deposit is required in the application to ensure placed-in-service also project qualification according to all conditions
6. Monitoring compliance fee is not a requirement	6. Monitoring compliance fee per low-income unit is charged for the extended-use period by the Committee after tax forms issuance
7. Quoting Point 2 regarding Local Government's responsibility, the developer is also not required to report the construction result	7. Placed-in-service application is required after one year of construction completion for the Committee to determine conditions fulfillment

## **6. DISCUSSION**

This section will discuss the results in precedence of the literature. Using the comparable policies in this research supports the academic literature by Mukherjee et al. (2021) regarding the importance of policy design to reach the goals of the government. The results display that policies that similarly aim to provide low-income housing can actually differ in structure and composition in the design. The difference occurs in the balance of three things: regulative and constitutive statements appearance; composition of strategies, norms, and rules; also modals of Attributes, oBjects, and Deontics. The policy of LIHTC seems to have a better balance in the composition of regulative and constitutive statements compared to FLPP. The most important point is that LIHTC is considered to be more restrictive than FLPP. At the same time, the concept mentioned by OECD in 2000 regarding the maximization of compliance possibility including incentives and disincentives also comes into this discussion. Looking at the difference in the provisioning process, FLPP may seem to be simpler to follow due to the incentives of some ease that appeared in the policy while LIHTC is considerably more complex. Those differences may also help indicate how their way of policy designing affects the level of achievement towards the goal of the government in realizing the provision of housing for the low-income. An additional key difference to be discussed, in the process of transfer between the institution in charge of the fund to the developer, FLPP has one additional institution in the middle between BP TAPERA and Developer which is the Implementing Bank. Meanwhile, in LIHTC, CTCAC and Developer interact straightly with each other. This may rise the risk of principal-agent problems as mentioned by Benedict

et al. (2022) regarding the ‘leaking’ of public assets and subsidies also inefficient and poor delivery of projects. For FLPP, this also means that the issue of hidden action and hidden knowledge mentioned as major difficulties by Lane (2013) may be broken down from between Developer-BP TAPERA into double step delegation of BP TAPERA-Implementing Bank and Implementing Bank-Developer. For instance, the hidden action problem may occur when BP TAPERA does not know for sure if the Implementing Bank will really do the best when delegated to disburse the fund and the same thing goes for the Implementing Bank to the Developer. This potential issue is also in line with the concept of moral hazard indicated by Braun and Guston (2003).

Literature by Woetzel (2014) mentioned that site location appropriateness of affordable housing plays an important role in its success (Sharghi, et al., 2022). The comparison obtained from this research shows that policies of FLPP and LIHTC provide a different level of detail in required location for low-income housing development. Firstly, the opportunity map as a guide for the developers is more likely to support the appropriateness of site location especially because the map was a result of multi-factors consideration regarding the low-income households where the methodology of the analysis is also shared to the public along with the map. Moreover, the details listed in the policy are very clear as it also contributes to the scoring system. However, all the details in the LIHTC also put the developers in a difficult position at the same time as mentioned by Foyt (2018) regarding the failure to offer below-market rents for developments in the median area of LIHTC, for instance. Still addressing to appropriate site location, the FLPP policy does not go into details and tends to refer to other policies of general housing construction and regional spatial planning. One of the highlight points regarding location in FLPP is the requirement of land ownership by proposing developers. The risk that is highly to appear here is that the policy of FLPP also set the maximum selling price of low-income housing using provinces as the basis. With the land ownership condition in addition to the unavailability of market studies requirements such as those included in the LIHTC, the developers are more likely to search for lands in the outskirts or wherever land is available to get a cheaper purchase price in return for the limit of selling price they also need to comply with. This finding then adds to the academic endeavor of Zhou (2013) regarding the passive job-housing mismatch problem and explains the World Bank’s finding in 2020 regarding the poor location of subsidized housing in Indonesia.

To support the argument regarding the importance of housing quality in regulation by Liu et al. (2019), this research found that LIHTC owns a detailed list of minimum construction including amenities and specific consideration of readiness to proceed both financially and construction & design. This matter makes LIHTC requirements to be highly clear, but in a way, it increases competition between developers to fulfill more requirements for higher score then eventually drive costs even higher. On the opposite, the FLPP policy refers to general standards with less detail as mentioned previously in this

research. Moreover, the government also gives simplification of permits for developers through simplified procedures, shorten issuance time, and removal or reduction of various permits requirement. This makes FLPP to be easier and definitely less costly than LIHTC for developers. However, the ease for developers also puts this policy at a higher risk of non-compliance compared to LIHTC.

As important as the requirement, the enforcement plays a significant role as stated by Dwijendra (2013). Not only has a more detailed list in the requirement, the LIHTC also includes project quality monitoring in the application process itself. To boost compliance, the LIHTC also mandates the same institution in charge of the application and charges deposit & fees. Although, this also makes LIHTC procedure longer and more costly compared to FLPP. In FLPP, fees are only included for permits and the process is simplified. However, the monitoring responsibility is mandated to separate agencies: PTSP, the Local Government, and the Implementing Bank. In addition, as mentioned previously, this unclear monitoring enforcement may cause a gap in knowledge and a higher possibility to be fraud chance.

## 7. CONCLUSION

This research observes further factors such as location and quality that influence vacancy in low-income housing through a comparative study between FLPP and LIHTC. A comparative approach combining policy design and content analysis provides insights into location and quality as part of the determinants of vacancy in subsidized housing. This endeavor is the first to look at specific factors, in this case location and quality, combined with policy design (*institutional grammar*) affecting vacancy in low-income housing. The key findings bring the following outcomes to light.

First, differences in policy design are revealed between FLPP and LIHTC policies. Both have a different balance of structure and composition, which reveals that LIHTC has better balance and is more restrictive than FLPP. In the design of provisioning process, this research also brings up the possibility that FLPP is more prone to the principal-agent problem than LIHTC due to the task delegation system regarding the fund. These results confirm that although FLPP and LIHTC are similar in government's aim to provide low-income housing with the involvement of private developers, LIHTC indeed can be considered to be well established compared to FLPP.

Second, LIHTC exemplifies the presence of stronger requirements and a more detailed monitoring system compared to FLPP. The comparison shows that LIHTC lists further detail in the requirements while FLPP refers to general housing policies that exist. Although simpler, the current requirements of location and quality in FLPP confirm how poor development results are more likely to occur. On the other hand, with better details, LIHTC requirements are considered highly complex, challenging, and

increasingly competitive for developers. Additionally, LIHTC puts detailed monitoring in every phase compared to FLPP to ensure compliance including deposit and fees charges. Although it decreases non-compliance risk, this increases costs for developers especially when being compared to FLPP. Yet, FLPP is more prone to a gap of knowledge risk due to unclear monitoring enforcement to separate agencies than LIHTC.

This research then confirmed the preceding literature and contribute through additional insights on how both FLPP and LIHTC policies work and relate to location and quality aspects in low-income housing. As expected, using LIHTC as a comparison to FLPP is helpful to enlighten how the policy can be improved to better tackle the issue of location and quality that eventually caused vacancies in low-income housing. Furthermore, it turned out that LIHTC also needs some improvements in response to the high supply shortage and cost issue in California. Most importantly, this study eventually shows that policy design, in this case is the *institutional grammar* concept combined with the context of requirements and monitoring, influence the location and quality of low-income housing. Additionally, it reveals that well established policy designs are less likely to suffer in poor location and quality of low-income housing, despite having to deal with different issues such as affordability. It means that to deal with the existing issues of location and quality that occur to low-income housing, it is also essential to look at how the policy is designed to begin with.

This research is the first to dive into location and quality in combination with policy design, specifically the concept of institutional grammar by Siddiki (2011), to understand their roles in location and quality in low-income housing. Moreover, it contributes to add further understanding of low-income housing through two different policy dynamics between Indonesia and the United States. This study also shows that same goal of low-income housing provision involving private developer in FLPP and LIHTC in reality displays different process in the provision under the context of the policy itself. As mentioned previously, the new insights can be useful for both governments of Indonesia and California to determine applicable combination of conditions and outcome in improving their policies. For instance, to enhance the problem-solving of vacancies in low-income housing, the government of Indonesia may review and learn from the LIHTC's requirements detail and monitoring system while looking into the aspects of the FLPP policy that can be optimized. Similarly, the government of California may also learn how to maintain the good compliance through both requirements and monitoring while considering some essential difficulties such as high cost in requirement fulfillment that leads to another issue of high price.

Nevertheless, some limitations are inevitable in this method of analysis. The main limitation of this research is that the outcomes of stimulating issues both in FLPP and in LIHTC, vacancy and supply shortage, cannot actually be observed through this study. This study mainly focuses only on a few of the many affecting factors through the policy perspective and findings from existing literature without further

assessments in numbers. Furthermore, the single-coder analysis in the institutional grammar tool is also a limitation due to the ideal involvement of multiple individuals for quality assurance. Additionally, the numbers of policy documents analyzed also differ between the two programs although both certainly include the main document. In addition, as this research focuses on the context of location and quality, more research with measurable method assessing low-income housing policies would be valuable. Alternatively, more research on the comparative study of FLPP with a more similar provision system of different country would definitely be helpful as a learning object. It would also be interesting to expand this research using real data from practitioners to identify and solve problems in better details.

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