

Research Article

© 2023 Putri et al. This is an open access article licensed under the Creative Commons Attribution-NonCommercial 4.0 International License (https://creativecommons.org/licenses/by-nc/4.o/)

Received: 15 January 2023 / Accepted: 20 April 2023 / Published: 5 May 2023

Hybrid Policy Model in the Land Acquisition Decision-Making Process for Toll Road Project in West Sumatra, Indonesia

Nora Eka Putri1

Helmi²

Melinda Noer²

Yossyafra²

Student. Doctoral Program of Development Studies, Andalas University; Department of Public Administration, Universitas Negeri Padang, Jl Prof. Hamka Air Tawar Padang, West Sumatra, Indonesia ²Doctoral Program of Development Studies, Andalas University, Jl. M Hatta Kampus Unand Limau Manis Padang, West Sumatra, Indonesia

DOI: https://doi.org/10.36941/ajis-2023-0075

Abstract

This research is related to the social phenomenon of land acquisition for toll road construction. It is necessary to enrich knowledge about policy politics, especially in the decision-making process of land acquisition policies, by involving the participation of widely affected communities (hybrid policy). The implementation of land acquisition for the Sicincin-Padang toll road construction in West Sumatra relatively encounters challenges such as issues of compensation, disputes over customary land, coordination between stakeholders, and such. The purpose of this research is to formulate a hybrid policy model for the decisionmaking process of land acquisition for the construction of toll roads in West Sumatra. The research approach is a mixed method, a kind of concurrent triangulation, namely two-sided research conducted simultaneously so that both sides have the same emphasis (data collection and analysis techniques). Data were collected from relevant informants and respondents from affected communities (325 respondents). Data were analyzed using a soft system methodology consisting of root definition, customers, actors, transformation, worldview, owners, and environmental constraints (CATWOE) analysis. The study results explain that the implementation of land acquisition for toll roads in Indonesia and the Sicincin-Padang section of toll roads in West Sumatra has not been optimal; there are still problems such as refusal of compensation value, road alignment issues, land acquisition administration, and coordination between the central government, local government, and the community. Furthermore, based on the above findings, a hybrid policy model for land acquisition policy (especially at the planning stage) is formulated as a novel concept that can be an alternative solution to the problem of toll road land acquisition.

Keywords: policy politics; hybrid policy model, land acquisition, soft system methodology

1. Introduction

Development is a process that can increase the capacity of the community through sustainable management of resources, both economic and environmental as well as social, for a better life in accordance with the aspirations of the community. (Rustiadi et al., 2018; Todaro and Smith, 2011). Based on the concept of Sustainable Development Goals (SDGs), among the objectives is the implementation of quality infrastructure development (Infid, 2017). This research is related to the construction of toll road infrastructure. The construction of toll roads has both positive and negative impacts on the community. Among the positive impacts is increased community mobility, including reduced production financing, which is able to boost the economy (Kumari dan Sharma, 2017; Mun, 2019; Rabello Quadros and Nassi, 2015; Suseno et al., 2015). In addition to the economic aspect, the positive impact can also be seen in the environmental and social aspects. On the environmental aspect, reforestation is carried out and makes beautiful gardens(Hidayat, 2010). Meanwhile, in the social aspect, the community is provided with Corporate Social Responsibility (CSR) funds by companies or toll road investors (Anatan, 2009). Then, in addition to the positive impact, it turns out that the construction of toll roads also has a negative impact (risk), both economically, environmentally, and socially. Substantial expenditures for contract maintenance are one of the economic risks of toll road construction, which do not correspond well with a rise in people's income. As for the economic risk of toll road construction, namely substantial expenditures for maintenance, it does not correspond well with a rise in people's income (Kumari and Sharma, 2017; Mun, 2019; Rabello Quadros and Nassi, 2015; Suseno et al., 2015). Environmental issues are another drawback in infrastructure projects that should be addressed, such as the incidence of environmental contamination, the possibility of air, water, and land pollution, as well as natural disasters (Palomino & Parvania, 2019; Putri et al., 2021, 2022; Sun et al., 2019). Furthermore, in addition to the economic and environmental risks, it creates social risk, which is a risk or negative effect that is felt directly or indirectly by the community around the toll road construction site. Among the social risks that are relatively common are: social risk in land acquisition for toll road construction (Ekasetya, 2015; Marlijanto, 2010; Rachmawati, 2014). Land procurement is the activity of providing compensation to the owner or those entitled to land that is the object of toll road construction by the state. This activity must be carried out because the construction of toll roads requires the availability of land. However, in practice, the landowner community is relatively exposed to social risks such as the problem of losing assets, mismatching the value of compensation, social disarticulation, and so on (Djanggih and Salle, 2017; Halafah et al., 2020; Marlijanto, 2010; Pratiwi, 2016; Tawas, 2013). This phenomenon has been studied and investigated from various perspectives, locations, and different scientific perspectives, including: 1) policy (decision-making processes; sustainability; stakeholders; policy makers; roles) (Dryzek, 2009; Fathurrahim and Djauhari, 2017; Heerink et al., 2007; Stiftel et al., 2006; Uyarra et al., 2020; Wirabrata and Surya, 2011); 2) decision making (law; shortage; delay; land acquisition; infrastructure project; land acquisition) (Langelo, 2018a, 2018b; Suparidho et al., 2020; Tampubolon et al., 2020); 3) development (figure or figures; construction; land or land; costs; policy makers) (Kaliba et al., 2009; Kellett and Nunnington, 2019; Noring, 2019); 4) risk (public private partnership; risk allocation; land use; government; state; infrastructure development) (Garvin, 2010; Grimsey and Lewis, 2002; Ke, Wang, and Chan, 2010; Ke, Wang, Chan, et al., 2010; Yang et al., 2018). The study above has not realized the success and sustainability of land acquisition for infrastructure development as a whole. According to Ofori, there are aspects that can achieve sustainable land acquisition in infrastructure development; this aspect is political support. (Ofori, 2006). Political factors are important because the implementation of land acquisition is determined through a public policy decision-making process (policy). The politics of land acquisition policy are considered an alternative that can solve the problem through a land acquisition policy decisionmaking process that involves the widest possible participation of the affected community.

Related to this research, the implemented land acquisitions for the construction of the Sicincin-Padang section of the toll road in West Sumatra are relatively experiencing obstacles, including the problem of compensation, customary land disputes, coordination between stakeholders, and others (Arifah & Putri, 2020; Dewi et al., 2020; Urrahmi et al., 2020). As a result, the implementation of the land acquisition plans was hampered, and the toll road construction is also behind schedule. So that the politics of land acquisition policy, through a decision-making process involving the government and affected communities (hybrid), is considered to be a solution to the problems that occur.

2. Method

The method in this research is a combination method. According to Leech and Onwuegbuzie, combined research is research that involves the collection, analysis, and interpretation of quantitative and qualitative data in a single study or in a series of studies examining the same underlying phenomenon (Bungin, 2020). The variant of the combination method used in this research is concurrent triangulation, which is a two-sided study that is carried out simultaneously so that both sides have the same emphasis. Qualitative and quantitative data have the same weight (QUAL+QUAN) and are analyzed separately before being compared or used to draw conclusions (Bungin, 2020; Creswell, 2016; Sugiyono, 2017). The focus of merging is more on techniques for collecting data and data analysis so that later it can be compared with all the other data obtained and it can be concluded whether the data obtained will mutually reinforce one another (Sugiyono, 2017). Oualitative data collection techniques are carried out through interviews with stakeholders related to research topics, documentation, and observations. Meanwhile, quantitative data was collected by distributing questionnaires to 325 affected community respondents. Data analysis was carried out using a soft systems methodology to formulate a hybrid policy model. The positivist paradigm and at least two other research methodologies in this SSM are combined or merged, making it a multimethod approach. (Burge, 2015; Muhammaditya et al., 2021; Putri et al., 2022). The stages of formulating a hybrid policy model with a soft system methodology consist of seven stages, including:

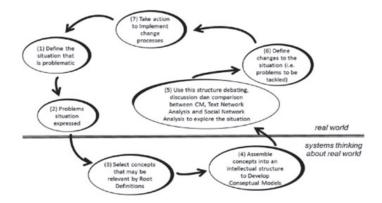


Figure 1: Multi-method based SSM image (Burge, 2015; Muhammaditya et al., 2021)

The first stage, identifying problematic situations at the meso and micro levels, is carried out by collecting data through interviews, distributing questionnaires, documentation, and observations related to the problems that occur. The second stage, explaining problematic situations derived from experiential organizational interviews and observations, In the second step, the data is obtained through participatory observation (Muhammaditya et al., 2021) with the output in the form of a "rich picture." Third phase: Create a complete root definition with CATWOE (Customer, Actor, Transformation, World View, Owner, Environmental constraint) analysis. This third stage is the stage that analyzes research data with CATWOE analysis. The fourth stage is developing a conceptual

model, namely a description of the relationship between activities and the role of each party in an effort to achieve their respective targets. (Irwanti et al., 2020; Lightning Papilio, 2015). The conceptual model is measuredbased on three efficacy criteria; efficiency; effectiveness (Muhammaditya et al., 2021). The analysis of the conceptual model's comparison with the actual situation is the fifth stage. The fifth stage's comparisons and discussions are used to inform the sixth stage's proposals for change and problem-solving techniques. The seventh stage involves formulating a new model or policy that stakeholders and decision-makers can use to address the issues being researched.

3. Results

The first toll road project in the area is being built in West Sumatra, specifically along the Sicincin-Padang segment (Putri et al., 2022). Various things have been planned by the government in development activities, such as planning and implementing land acquisition for land acquisition to the stage of paying land compensation, which is then continued with the construction of the toll road. In land acquisition planning, the government, as the person in charge, has issued a land acquisition planning document, which begins with conducting a feasibility study. Among the aspects carried out in the feasibility study is explaining the feasibility of toll road construction in the area from a technical, economic, environmental, and social standpoint. However, it turns out that the planning for land acquisition has caused problems from a social standpoint. Furthermore, the steps of the soft system methodology are used to explain the findings of the investigation, which have been described in the previous section. The stages of formulating a hybrid policy model with a soft system methodology consist of seven stages, including:

Stage 1. Identification of Problem Situations, Based on the research results obtained from indepth interviews with stakeholders involved in land acquisition, it is clarified that affected communities are not involved in land acquisition planning. The development of a feasibility study to evaluate the economic, environmental, and social viability was further justified as not yet including all impacted populations (Putri et al., 2022). The surveys conducted have not represented expectations or the community's beliefs. Analyzing the problem of environmental impact, conducted by the relevant agencies, has not guaranteed environmental sustainability in the field (Putri et al., 2022). Furthermore, socially, that the community affected by the toll road construction lost land (assets) due to the implementation of procurement for the public interest. Even though there is rejection from the community, their land can be used by the government on the grounds that it is permitted by regulations on the basis of public interest. This has implications for other phenomena such as people being forcibly displaced from their land (displacement); loss of livelihood; social interaction with family and relatives in the old place is changing, and so on.

Table 1. Tabulated of Average Respondents' Statements on the Land Procurement Process for the West Sumatra Toll Road

Respondents's Statement	Average	Category
All villages in the land acquisition location of the Sicincin-Padang toll road have been	2.89	A Little
included in the planning process for land acquisition (PW.11)	(58%)	Low
Public consultation has been carried out to socialize the location of the toll road (PM.2)	3.70 (74%)	Currently
Each public consultation event is attended by all the villages whose land the Sicincin-	3.60	Currently
Padang toll road is being built on (PM.8)	(72%)	currently
Determination of the location and route of the toll road can and has been changed after public consultation and deliberation with the community (PW.7)	3.10 (62%)	Currently
The value of land compensation can and has been changed after public consultation	3.00	A Little
(PW.10)	(6o%)	Low
When it reaches the consignment stage, the government has the right to control community land (PW.9)	2.40 (48%)	Low

Source: Data processed by researchers from 325 respondents, 2022 (Putri et al., 2022)

From the table above, it is acknowledged that the Sicincin-Padang toll road project poses environmental and social hazards, which the locals in that area would undoubtedly experience. From the data collected on 325 respondents, it is known that, quantitatively, most of the respondents submitted statements that were categorized as assessing the Sicincin-Padang toll road's environmental and social risks as moderately low (Putri et al., 2022). The Sicincin-Padang toll road is being built in real time, and the figure below shows how it is affecting the agricultural area of the impacted community. It is also having an impact on the residents' standard of living and livelihood patterns.



Figure 2: Farmland Is Passed by a Toll Road (source: PT HK documentation, 2021 (PT Hutama Karya, 2021))

Stage 2. Revealing the Problem Situation, Problems related to environmental and social aspects in the construction of the Sicincin-Padang toll road section can be explained through the following rich picture:

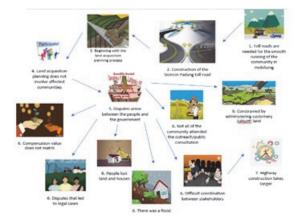


Figure 3: Rich Picture based on the troubling circumstance Source: An interview with a group of the problem's addressed owners (source: processed by researchers, 2022) (Putri et al., 2022).

Stage 3. Selecting relevant concepts with root definitions, the purchase of land for the building of the road is the issue that arises in the Sicincin-Padang segment of the toll road in West Sumatra. Prior to toll road construction, land acquisition is carried out as a guarantee that the land to build the road is available. In its implementation, the land acquisition for the toll road has experienced problems,

although a feasibility study has been carried out. The fact is that there are problems in the process. The most significant issue is choosing the road route and determining how much compensation will be given to the community. These issues have an impact on the social and environmental issues that affect the residents of the area where the land acquisition will take place. A CATWOE analysis is conducted to clarify how the issue relates to the interests of each party, as seen in the following:

Table 2. CATWOE Analysis: Root Definitions and Problems

No	Component	System Definition of Each Component		
1	Customer/ Client	West Sumatra communities eligible for compensation for land acquisition for the Sicincin-Padang toll road segment		
2	Actors	Task Force on Land Acquisition; National Land Agency (BPN) for West Sumatra Province; PPK for Land Acquisition of the Sicincin-Padang Toll Road; Ministry of Public Works and Public Housing of the Republic of Indonesia; Local Government (West Sumatra Province and Padang Pariaman District); NGOs; and academics		
3	Transformation Process	Realization of land acquisition planning that reduces social risk through a land acquisition decision-making process that takes aspects of the participation of affected communities (located at land acquisition locations) into account		
4	Weltanschauung	The realization of a hybrid policy model (especially in the planning aspect) of sustainable land acquisition that takes into account social values and is fair for affected communities at toll road construction sites		
5	Owner	BPN; Ministry of PUPR RI		
6	Environment Constrain	The need for active participation of the community at the location of toll road land acquisition (affected communities) to be actively involved in the decision-making process at every stage of land acquisition		

Source: processed by researchers, 2022 (Putri et al., 2022)

From the table above, it can be continued by developing a conceptual model (stage 4), which can later be measured by certain criteria.

Stage 4. Assembling Concepts into Intellectual Structures to Develop Conceptual Models The intellectual structure can be done through the following steps (Muhammaditya et al., 2021): as in the following table:

Table 3. Conceptual Model Measurement Criteria

Efficacy	Involving the community more frequently (community participation) at toll road building sites during each stage of land acquisition, notably during the planning stage	
Efficiency	The involvement of the affected communities in the planning of toll road land acquisition can minimize the social impacts that occur	
Effectiveness	The goal of obtaining land for toll road construction is implemented, the community gets fair and humane compensation, and there are no risks arising from the economic, environmental and social aspects of the Hybrid Policy Model in land acquisition (especially planning).	

Source: processed by researchers, 2022 (Putri et al., 2022)

From the research on the measurement criteria of the conceptual model, a conceptual model of the decision-making process for the communicative planning of land acquisition for the construction of toll roads in West Sumatra can be built. The following is a conceptual model that is outlined in the form of a chart:

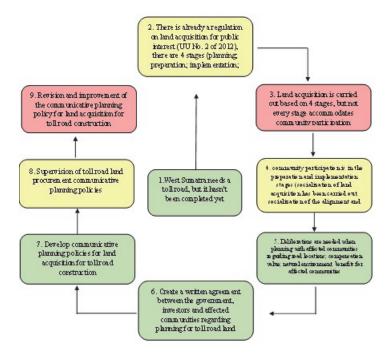


Figure 4: Hybrid Policy Conceptual Model of Land Acquisition Model for Toll Road Development **Source:** Processed by researchers from a conceptual frame- work based on data, theory, 2022

The resulting conceptual model will work well if all the strategic assumptions are met. These strategic assumptions can be divided into three categories. The macro category is that there must be clear regulations governing collaborative planning for land acquisition for toll road construction. If the regulation does not yet exist, then the actual condition must be to formulate a regulation regarding this matter. Then, from a micro perspective, each party involved in the building of toll roads must adhere to the directives and do their assigned duties because the construction of toll roads involves various stakeholders, and each stakeholder has their own duties, so they must understand their duties and functions. The execution of socialization and community consultation are two of these obligations and responsibilities. This is also related to the strategic assumption of the micro-class; the condition of the affected community must also be a consideration for policymakers regarding the land acquisition plan. Stakeholders must consult with impacted communities about their expectations and worries over the development of toll roads, and then they must come to written agreements with them (Putri et al., 2022). Optimal communication between stakeholders and the community can give birth to a communicative planning or decision-making process. These three categories can be used as a reference in formulating a communicative planning policy model for land acquisition for toll road development. Even monitoring and evaluation of the policy are still possible so that it becomes stable and sustainable. The condition of the affected community must also be a consideration for policymakers regarding the land acquisition plan.

Stage 5. Comparison Model between Real Conditions and Conceptual Models, Comparison Model between Real Conditions and Conceptual Models: The conceptual model is currently tested under conditions found in the real world. The test was carried out through interviews with several experts to verify and validate the model. From the analysis, it is known that the communicative planning policy for toll road development has not been accommodated in standard regulations. The

thing to do related to the planning is to conduct a feasibility study economically, technically, socially, and environmentally before the toll road construction is carried out. Additionally, the feasibility study's findings do not assure that there won't be any risks involved in the development process. (Putri et al., 2022). This is due to the toll road industry's current focus on physical growth and viability. Consequently, the propensity for the impacted community to prosper is likewise a formality. The crucial factor is the establishment of effective communication between stakeholders and communities affected by toll road construction. So far, the government typically constructs toll roads in a commercial manner and ensures the sustainability of toll road construction. Whereas the essence of toll road development is for the community, if the construction of toll roads turns out to be difficult for the community (especially the affected people), consequently, it can be said that the development was unsuccessful. As for the estuary of the comparison of combining the conceptual model with actual circumstances, it is involving the affected community in preparing communicative planning for sustainable toll road land acquisition. The sixth and seventh stages are to formulate a communicative planning policy for land acquisition for the construction of toll roads in a model called the hybrid policy model and then provide policy recommendations. From the explanation above, it can be described that the communicative planning for toll road land acquisition that must be made by stakeholders in the form of policies is planning that must be mindful of factors of community involvement, analysis of the needs of the affected community, a strategy for abatement based on sustainable infrastructure principles, and the social and cultural factors assessment of land acquisition.

4. Discussion

A soft system methodology (SSM) approach was used to evaluate the formation of a hybrid policy model in the land acquisition decision-making process (particularly the planning stage) of toll road building in West Sumatra. The positivist paradigm is combined or merged with at least two other research methodologies in this SSM, making it a multi-method approach (Burge, 2015; Muhammaditya et al., 2021; Putri et al., 2022). SSM allows researchers to analyze data from several types of interviews, questionnaires, and policy documents together in each stage of the SSM (there are seven stages in the SSM). From the data analysis using the seven stages of SSM, several key words emerged, namely community participation, decision-making, and land acquisition planning. In connection with the objectives of the previous research, there are certain factors that influence the decision-making process for land acquisition for the construction of the Sicincin-Padang section of the toll road. From the results of the study, it is known that the community participation factor has the highest percentage of influence on the decision-making process, especially at the planning stage of land acquisition. This is also relatively the same as the results of the SSM analysis in this chapter. From the results of the study, it is known that communicative planning for land acquisition is very important in the development of toll road infrastructure. Communicative planning is a participatory and dialogical effort that involves various stakeholders and affected groups in the development of land, infrastructure, or public services that are socially oriented and seek justice (Steele, 2020). This is in accordance with the expectations of the people affected by the toll road construction who want the government or stakeholders to involve them in planning for land acquisition for the construction of the Sicincin-Padang toll road.

Furthermore, based on the ten principles of communicative planning proposed by Habermas and Healey (Fauzi, 2017), that the interactive and interpretative process at the planning stage of toll road land acquisition between the government, investors, and the Sicincin-Padang toll road's impact on the local communities is considered not to have occurred because the land acquisition planning carried out tends to be top-down (Putri et al., 2022). The top-down mechanism is a decision-making mechanism that is dominated by the government and involves relatively little community (Rustiadi et al., 2018). In the case discussed in this study, land acquisition planning is determined by the agency that requires land, namely the Ministry of PUPR RI.

The principle of communicative planning, which requires respectful discussions that lead to collaboration to produce decisions, has also not been reflected in the results of the research carried out, even though this has been done at the stage of preparation and implementation of land acquisition. Data and documentation from the field also explain that the participation of the affected community is very much needed in the decision-making process (O'Faircheallaigh, 2010), but in communicative planning, it is not yet broad because it is still consultative (public consultation). Based on the categorization proposed by Arnstein, the participation of the affected community in the preparation and implementation stages of land acquisition for the construction of the Sicincin-Padang toll road is included in the pseudo-participation group that is informational; consultation and reassurance (Arnstein, 1969, 2019; Hart, 1997). Information is communication with a one-way tendency that is general in nature. Furthermore, consultation is the existence of two-way communication, but it is still a ritual participation.

In contrast to the planning stage, at this stage, the participation of affected communities in the planning decision-making process has not been carried out. This is because, procedurally (applicable rules), the opportunity for participation is very limited for the community; the opportunity for the affected community only appears through economic, social surveys conducted by a professional team appointed by the agency that requires land, where the results of the survey also do not guarantee as a representation of all the aspirations of the affected community at the land acquisition site for toll road construction. According to Healey (1997), in communicative planning, there should be four streams of the decision-making process: preparation by the initiator, dialogue, making policy discourse and establishing consensus (Fauzi, 2017). However, in planning for land acquisition for the construction of the Sicincin-Padang toll road section, this has not yet happened. So that the hybrid policy model that explains the decision-making process that involves the government and affected communities proportionally can be used as an effort to improve planning for land acquisition for toll road development, which so far has not realized communicative planning. The process of the relationship between the hybrid policy model and the improvement of land acquisition planning for the construction of toll roads can be seen in the following table:

Table 4: Relationship between Hybrid Policy Model and Improvement of Communicative Planning through Decision Making Process on Land Acquisition

Hybrid Policy Model (in the Communicative Planning)	Process that Occurs	Improvement of Communicative Planning				
Decision-Making Process						
	The initiator of land acquisition planning is an agency that needs land, but the implementation has not involved the affected communities	Needs to accommodate the involvement of affected communities (community participation), the initiator is the regional head (governor) as the party that has authority over the land acquisition location area				
Dialogue or discussion between stakeholders	The dialogue related to land acquisition planning has been carried out by the agency that needs land, but is limited to the internal agency alone, has not involved other parties	Dialogue or discussion on land acquisition planning must involve all stakeholders (central government; local government; traditional leaders or leaders; investors; affected communities)				
Making policy discourse	The process of selecting alternative policies or alternative land acquisition plans has not yet been carried out by stakeholders	A discussion process must be carried out to produce alternative policies or plan alternatives				
Establish consensus	Negotiations between stakeholders have not been carried out to produce a consensus such as a community-based agreement (CBA) as the basis for land acquisition policies	Negotiations must be carried out by formulating a written agreement (Community Benefit Agreement) between the government, investors, and affected communities in land acquisition planning related to fair and relevant compensation assessments; a communicative planning process that must be explained in the land acquisition regulations; clear social, economic and environmental benefits for affected communities				

Note: Guided by the Communicative Planning Process Implementation Guide, (Source: Modified from Healey (1997) (Fauzi, 2017; Noer, 2008))

Furthermore, related to the decision-making process in land acquisition planning that must involve affected communities, it is necessary to identify the factors that influence the realization of a hybrid policy model in land acquisition planning so that it can result in improved land acquisition planning for toll road construction. Among these factors can be categorized as factors of community culture

and community participation (internal), as well as political will and land governance (external). Internal factors are factors that come from the community environment affected by land acquisition for the construction of the Sicincin-Padang section toll road.

Community culture is the beliefs, values, attitudes, and positive habits of the people of West Sumatra (especially the Minangkabau community affected by land acquisition for the construction of the Sicincin-Padang section of the toll road in West Sumatra). Community participation is activities involving affected communities in socialization; discussions to express opinions through a democratic process for decisionmaking at each stage of land acquisition, including the resolution of problems that arose in land acquisition for the construction of the Sicincin-Padang section of the toll road in West Sumatra. This public participation relates to providing input to stakeholders, sharing public decision-making and changing the distribution of power. Furthermore, political will is an effort to carry out certain interests of the central government; local government; traditional community leaders; contractor; appraisal team; academics or experts; media; organizations) on land acquisition for the construction of the Sicincin-Padang toll road section in West Sumatra, which can provide benefits or benefits to them either directly or indirectly for the benefit of individuals/organizations/public. Among the aspects in political will are interaction between actors, understanding of issues, commitment to support, providing solutions and how to involve the community. Then land governance is related to the government's efforts to implement the Law on Land Procurement for Development in the Public Interest (UU No 12 of 2012) in communities affected by the construction of the Sicincin-Padang toll road section in West Sumatra. Aspects related to land governance include the rule of law, transparency of procedures, fairness and impartiality and efficiency and effectiveness.

The figure below illustrates internal and external factors that can influence the decision-making process for land acquisition planning for the construction of the Sicincin-Padang toll road through a hybrid policy model.

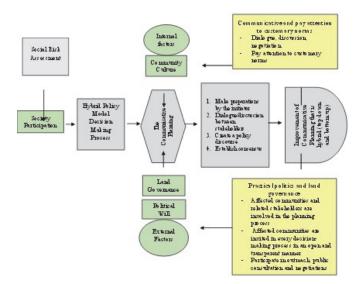


Figure 5. External factors and internal factors in the Hybrid Policy Model in producing improved land acquisition planning for toll road construction

Source: processed by researchers from a conceptual frame- work based on data, theory, 2022

Based on the explanation above, it is necessary to reconstruct the cycle of land acquisition processes for toll road construction in West Sumatra and in general in Indonesia to create a model of land acquisition policy that involves the wider participation of affected communities and is directly

involved in planning for land acquisition for toll road construction. The model in question is a policy model by carrying out a decision-making process that involves the government and affected communities proportionally (a combination of top down and bottom up) which is also known as a hybrid policy model. The formulation of this hybrid policy model is expected to be an alternative answer and solution to the weaknesses in the implementation of land acquisition for the construction of the Sicincin-Padang toll road, which has not accommodated the active participation of the affected community at every stage. Then also, as an improvement to the Regulation of the Minister of ATR/Head of BPN of the Republic of Indonesia, Number 19 of 2021 concerning Provisions for the Implementation of Government Regulation (PP) Number 19 of 2021 concerning the implementation of land acquisition for development in the public interest, especially in Chapter II (Land Procurement Planning), Section II (Feasibility Study), Articles 3 and 4. The article states that land acquisition planning is based on, among other things, the implementation of a feasibility study through socioeconomic, environmental, and other specific surveys if necessary. In addition to feasibility studies and surveys, what should be addressed in this article is the involvement of communities directly affected by land acquisition in making and determining the land acquisition planning document, which is carried out through dialogue and discussion with other stakeholders involved in the land acquisition planning and results in consensus. The model that describes the involvement of affected communities can be described in the form of a chart below: which results in consensus (agreement). The model that describes the involvement of affected communities can be described in the form of a chart below: which results in consensus (agreement). The model that describes the involvement of affected communities can be described in the form of a chart below:

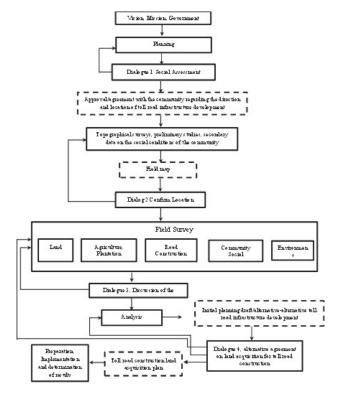


Figure 6. Hybrid Policy Model on Land Acquisition Policy Decision Making Process (source: processed by researchers from a conceptual frame-work based on data, theory, 2022)

5. Conclusion

Toll road construction in developing countries is different from developed countries. In developing countries (including Indonesia), the construction of toll roads often encounters obstacles. The construction of toll roads in one of the provinces, namely West Sumatra, also experienced obstacles, the tendency for economic, social and environmental risks to arise in the toll road construction process. This is because the affected communities have not been involved in the planning of toll road land acquisition. So, there must be opportunities for affected communities to actively participate in planning regulated by clear regulations. In this chapter, using a soft system methodology (SSM) approach, the formulation of the decision-making process is examined. This SSM explains the problem more clearly (rich picture) and with CATWOE analysis, which will produce a conceptual model as the basis for formulating policy models. The conceptual model can later be compared with real conditions. This can facilitate stakeholders in designing a hybrid policy model as an alternative solution to land acquisition policies. The formulation of a hybrid policy model in the decision-making process of land acquisition for the Sicincin-Padang toll road is very necessary, and will improve the decision-making process for land acquisition for toll road construction, because in this model there is community participation (providing space for affected communities to actively participate in the decision-making process at each stage of land acquisition, especially planning). So that obstacles to toll road land acquisition can be minimized and even avoided from the beginning of the planning. The hybrid policy model in the land acquisition decision-making process is a policy model that combines top-down and bottom-up patterns, so that the policies made are communicative and oriented to the application of deliberative democratic principles. Furthermore, it can be used as an alternative land acquisition policy to realize sustainable land acquisition for toll road development.

References

- Anatan, L. (2009). Corporate Social Responsibility (CSR): Tinjauan Teoritis dan Praktik di Indonesia. *Jurnal Manajemen Maranatha Christian University*, 8(2), 66–77. majour.maranatha.edu/index.php/jurnal-manajemen/article/view/220
- Arifah, W. P., & Putri, N. E. (2020). Implementasi Pembangunan Jalan Tol Ruas Padang-Sicincin dari Aspek Pengadaan Tanah. *Jurnal Niara*, 13(2), 23–28. https://doi.org/10.31849/niara.v13i2.4502
- Arnstein, S. R. (1969). A Ladder Of Citizen Participation. Journal of the American Institute of Planners. *Journal Of The American Institute Of Planners*, 35(November 2012), 37–41. https://www.tandfonline.com/doi/abs/10.1080/01944366908977225
- Arnstein, S. R. (2019). A Ladder of Citizen Participation. *Journal of the American Planning Association*, 85(1), 24–34. https://doi.org/10.1080/01944363.2018.1559388
- Bungin, B. (2020). Post- Qualitative Social Research Methods (Kualitatif-Kuantitatif-Mixed Methods) (Pertama). Kencana.
- Burge, S. (2015). An Overview of the Systems Methodology. In *Systems Thinking: Approaches and Methodologies* (pp. 1–14). Burge Hughes Walsh. https://doi.org/10.1002/9780470518762.ch6
- Creswell, J. W. (2016). Research Design Pendekatan Kualitatif, Kuantitatif dan Mixed (3rd ed.). Pustaka Pelajar, Yogyakarta.
- Dewi, A. R., Sutaryono, & Nurhikmahwati, A. (2020). Pemetaan Masalah Pengadaan Tanah dengan Objek Tanah Ulayat (Kasus Jalan Tol Padang-Sicincin). BHUMI: Jurnal Agraria Dan Pertanahan, 6(2), 277–291.
- Djanggih, H., & Salle, S. (2017). Aspek Hukum Pengadaan Tanah bagi Pelaksanaan Pembangunan untuk Kepentingan Umum. *Pandecta Research Law Journal*. https://journal.unnes.ac.id/nju/index.php/pandecta/article/view/11677
- Dryzek, J. S. (2009). Policy Analysis as Critique. The Oxford Handbook of Public Policy. https://doi.org/10.1093/0xfordhb/9780199548453.003.0009
- Ekasetya, M. P. (2015). Pelaksanaan Pengadaan Tanah Bagi Pembangunan untukKepentingan Umum (Studi Analisis Pada Pembangunan Jalan Tol Trans Jawa Di Kabupaten Brebes). Universitas Negeri Semarang.
- Fathurrahim, H., & Djauhari, H. (2017). Legal Reconstruction of Land Procurement For Public Interest Development Based on Justice Value. In *Journal of Education and Social Sciences*. jesoc.com. https://www.jesoc.com/wp-content/uploads/2018/03/KC8-307.pdf

- Fauzi, A. F. (2017). Proses Perencanaan Komunikatif. Jurnal Planesa, 8(1), 1-11.
- Garvin, M. J. (2010). Enabling development of the transportation public-private partnership market in the United States. *Journal of Construction Engineering and Management*. https://doi.org/10.1061/(ASCE)CO.1943-7862.0000122
- Grimsey, D., & Lewis, M. K. (2002). Evaluating the risks of public private partnerships for infrastructure projects. International Journal of Project Management, 20(2), 107–118. https://doi.org/10.1016/S0263-7863(00)00040-5
- Halafah, S., Baharuddin, H., & Abbas, I. (2020). Efektivitas Eksekusi Putusan Perkara Perdata Yang Telah Berkekuatan Hukum Tetap di Pengadilan Negeri Sunggumina. *Journal of Lex Generalis (JLG)*. http://pasca-umi.ac.id/index.php/jlg/article/view/86
- Hart, S. R. (1997). Ladder of Participation Arnstein. 7-8.
- Heerink, N., Qu, F., Kuiper, M., Shi, X., & Tan, S. (2007). Policy reforms, rice production and sustainable land use in China: A macro-micro analysis. *Agricultural Systems*, 94(3), 784–800. https://doi.org/10.1016/j.agsy.2006.11.005
- Hidayat, I. W. (2010). Kajian Fungsi Ekologi Jalur Hijau Jalan sebagai Penyangga Lingkungan pada Tol Jagorawi. Jurnal Manusia Dan Lingkungan, 17(2), 124–133. https://doi.org/10.22146/jml.18711
- Infid. (2017). SDG 09; Infrastruktur, Industri dan Inovasi. https://www.sdg2030indonesia.org/page/17-tujuan-sembilan
- Irwanti, A., Hariyadi, P., & Handoko, L. T. (2020). A Model of Government Intervention upon a Technology Transfer Program for the Product Innovation Improvement of Food Micro-Small Enterprises. *International Journal of Innovation, Creativity and Change*, 14(8).
- Kaliba, C., Muya, M., & Mumba, K. (2009). Cost escalation and schedule delays in road construction projects in Zambia. *International Journal of Project Management*. https://www.sciencedirect.com/science/article/pii/So263786308000951
- Ke, Y., Wang, S. Q., & Chan, A. P. C. (2010). Risk allocation in public-private partnership infrastructure projects: comparative study. *Journal of Infrastructure Systems*. https://doi.org/10.1061/(ASCE)IS.1943-555X.0000030
- Ke, Y., Wang, S. Q., Chan, A. P. C., & Lam, P. T. I. (2010). Preferred risk allocation in China's public-private partnership (PPP) projects. ... Journal of Project Management. https://www.sciencedirect.com/science/article/pii/So263786309000933
- Kellett, J., & Nunnington, N. (2019). Infrastructure for new Australian housing: Who pays and how? *Cities*, 92(2019), 10–17. https://doi.org/10.1016/j.cities.2019.03.007
- Kumari, A., & Sharma, A. K. (2017). Infrastructure financing and development: A bibliometric review. *International Journal of Critical Infrastructure Protection*, 16, 49–65. https://doi.org/10.1016/j.ijcip.2016.11.005
- Langelo, R. D. (2018a). Legal Impact of Land Acquisition for Public Land Procurement Development. *Tadulako Master Law Journal*. http://mrtg.untad.ac.id/index.php/TMLJ/article/view/142
- Langelo, R. D. (2018b). Penetapan Lokasi Dan Akibat Hukumnya Terhadap Pembayaran Ganti Kerugian Dalam Pengadaan Tanah Bagi Pembangunan Untuk Kepentingan Umum. *University Of Bengkulu Law Journal*. https://ejournal.unib.ac.id/index.php/ubelaj/article/view/4799
- Marlijanto, S. (2010). Konsinyasi Ganti Rugi dalam Pengadaan Tanah Untuk Kepentingan Umum. *Universitas Dinopogoro*.
- Muhammaditya, N., Hardjosoekarto, S., Herwantoko, O., Fany, Y. G., & Subangun, M. I. (2021). Institutional Divergence of Digital Item Bank Management in Bureaucratic Hybridization: An Application of SSM Based Multi-Method. *Systemic Practice and Action Research*, 0123456789. https://doi.org/10.1007/S11213-021-09579-4
- Mun, S. (2019). Economics of Transportation Joint provision of transportation infrastructure. *Economics of Transportation*, 19(April 2018), 100118. https://doi.org/10.1016/j.ecotra.2019.06.001
- Noer, M. (2008). Peran Kelembagaan Lokal dalam Perencanaan Wilayah Desentralistis Kasus: Perencanaan Berbasis Nagari di Kabupaten Tanah Datar Propinsi Sumatera Barat. Institut Teknologi Bandung.
- Noring, L. (2019). Public asset corporation: A new vehicle for urban regeneration and infrastructure finance. *Cities*, 88(December 2018), 125–135. https://doi.org/10.1016/j.cities.2019.01.002
- O'Faircheallaigh, C. (2010). Public participation and environmental impact assessment: Purposes, implications, and lessons for public policy making. *Environmental Impact Assessment Review*, 30(1), 19–27. https://doi.org/10.1016/j.eiar.2009.05.001
- Ofori, G. (2006). Construction in developing countries: A research Agenda. *Journal of Construction in Developing Countries*, 11(1), 1–16.
- Palomino, A., & Parvania, M. (2019). Advanced charging infrastructure for enabling electrified transportation. *Electricity Journal*, 32(4), 21–26. https://doi.org/10.1016/j.tej.2019.03.003
- Petir Papilio, M. S. M. (2015). Model kebijakan pengelolaan agroindustri bioenergi dalam perspektif kelestarian lingkungan (Soft System Methodology Sebagai Suatu Pendekatan). *Penelitian Dan Aplikasi Sistem Dan Teknik Industri (PASTI), IX*(1), 10–18.

- Pratiwi, P. F. P. (2016). Permasalahan Yuridis Pasal 41 Ayat (3) Undang-Undang Nomor 2 Tahun 2012 Tentang Pengadaan Tanah Bagi Pembangunan untuk Kepentingan Umum. *Lambung Mangkurat Law Journal*, 1(2), 170–179. https://doi.org/10.32801/lamlaj.vii2.17
- PT Hutama Karya. (2021). Laporan Pelaksanaan Pengadaan Tanah Jalan Tol Seksi Sicincin-Padang.
- Putri, N. E., Helmi, Noer, M., & Yossyafra. (2021). Risk Analysis and Potential Benefits of Infrastructure Development. MIMBAR: Jurnal Sosial Dan Pembangunan, 37(2), 236–248.
- Putri, N. E., Helmi, Noer, M., & Yossyafra. (2022). Socio-ecological Risk Mitigation in the Construction of the Sicincin-Padang Toll Road, West Sumatra. *IOP Conference Series: Earth and Environmental Science*, 1098(1). https://doi.org/10.1088/1755-1315/1098/1/012068
- Rabello Quadros, S. G., & Nassi, C. D. (2015). An evaluation on the criteria to prioritize transportation infrastructure investments in Brazil. *Transport Policy*, 40, 8–16. https://doi.org/10.1016/j.tranpol.2015.02.002
- Rachmawati, I. D. (2014). Konflik Sosial Warga Pereng Akibat Pembebasan Lahan TOL SUMO di Sidoarjo. *Paradigma*, 2(3). https://media.neliti.com/media/publications/250722-konflik-sosial-warga-pereng-akibat-pembe-b8coa9oa.pdf
- Rustiadi, E., Saefulhakim, S., & Panuju, D. R. (2018). *Perencanaan dan Pengembangan Wilayah* (A. E. Pravitasari (ed.)). Yayasan Pustaka Obor Indonesia.
- Steele, W. (2020). The Routledge Handbook of Planning Theory. *Urban Policy and Research*, 38(4), 372–374. https://doi.org/10.1080/08111146.2020.1801140
- Stiftel, B., Watson, V., & Acselrad, H. (2006). Dialogues in urban and regional planning 2. In *Dialogues in Urban and Regional Planning 2* (Vol. 9780203967). https://doi.org/10.4324/9780203967508
- Sugiyono. (2017). Metode Penelitian Kombinasi (9th ed.). Alfabeta.
- Sun, D., Zeng, S., Lin, H., Meng, X., & Yu, B. (2019). Can transportation infrastructure pave a green way? A city-level examination in China. *Journal of Cleaner Production*, 226, 669–678. https://doi.org/10.1016/j.jclepro. 2019.04.124
- Suparidho, F., Arba, A., & Putro, W. D. (2020). Legal Protection of Land Rights Holder in Land Procurement for Public Interest (Case study of Tower development SUTT 150KV in North Lombok Regency). ... Journal of Multicultural and http://ijmmu.com/index.php/ijmmu/article/view/1690
- Suseno, Y. H., Wibowo, M. A., & Setiadji, B. H. (2015). Risk analysis of BOT scheme on post-construction toll road. *Procedia Engineering*, 125, 117–123. https://doi.org/10.1016/j.proeng.2015.11.018
- Tampubolon, B., Bakri, M., Safa'at, R., & Permadi, I. (2020). Formulation of the Meaning of Non-Physical Losses in the Renewal of Land Procurement Law For the Development for A Worthy and Fair Public Interest. *Journal of Arts and Humanities*, 9(4). https://mail.theartsjournal.org/index.php/site/article/view/1876
- Tawas, A. Y. (2013). Pengadaan Tanah untuk Kepentingan Umum (Studi Kasus Pelebaran Jalan Martadinata PAAL DUA di Kota Manado). *Jurnal Hukum Universitas Sam Ratulangi*, I(6), 64–76. http://repo.unsrat.ac.id/440/
- Todaro, M., & Smith, S. C. (2011). Economic Development, 11th Edition. In S. Yagan (Ed.), *Economic Development* (11th ed.). Pearson.
- Urrahmi, M., Putri, N. E., Pada, P., Kota, P., & Tahun, P. (2020). Jurnal Mahasiwa Ilmu Administrasi Publik (JMIAP). 2(2), 9-17.
- Uyarra, E., Zabala-iturriagagoitia, J. M., Flanagan, K., & Magro, E. (2020). Public procurement, innovation and industrial policy: Rationales, roles, capabilities and implementation. *Research Policy*, 49(1), 103844. https://doi.org/10.1016/j.respol.2019.103844
- Wirabrata, A., & Surya, T. A. (2011). Masalah kebijakan dalam pengadaan tanah untuk pembangunan infrastruktur. Jurnal Ekonomi & Kebijakan Publik, 2(2), 729–752. http://jurnal.dpr.go.id/index.php/ekp/article/view/126/80
- Yang, T., Long, R., & Li, W. (2018). Suggestion on tax policy for promoting the PPP projects of charging infrastructure in China. *Journal of Cleaner Production*, 174, 133–138. https://doi.org/10.1016/j.jclepr 0.2017.10.197