



## Research paper

# Public investment disbursement in transport infrastructure construction: current situation and solutions

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**Abstract:** Public investment is one of the important and decisive factors for the economic development process in Vietnam. It involves the government's investment in public programs, projects, and investment subjects. The medium-term public investment plan for the period of 2021–2025 needs VND 2.87 million billion, focusing on priority sectors that are important and key to the economy, including transport infrastructure. The budget allocated for the transport sector accounts for the highest proportion (42.9%) but the development of modern and synchronized infrastructure has not yet met requirements. Currently, the disbursement work is slow and encounters many obstacles, affecting the effectiveness of capital utilization. According to the report of the Ministry of Transport, the disbursement rate of transport works in the period of 2016–2020 reached 69%. Therefore, this article analyzes the current situation of disbursement in transport infrastructure construction through reports of State management agencies, previous studies, uses SPSS software to quantify the criteria affecting this work. Furthermore, solutions for accelerating the public investment disbursement in transport infrastructure construction are proposed.

**Keywords:** disbursement, payment, public investment capital, public investment management, settlement

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# 1. Overview of public investment disbursement in transport infrastructure construction in Vietnam

Public investment capital includes State budget capital, capital from lawful revenue sources of State agencies, public non-business units dedicated to investing in the following subjects: Socio-economic infrastructure programs and projects; activities of State agencies, public non-business units, socio-political organizations; supporting investment activities to provide public products and services, social welfare; projects under public-private partnership model, etc. [1]. In the period of 2016–2020, public investment capital was concentrated on strategic, essential, and important infrastructure projects, e.g: roads, airports, ports, key irrigation works, electricity, telecommunications, urban and industrial park infrastructure, hospitals, national target programs on new rural construction. In which, the Vietnamese government always allocates a large amount of capital to transport infrastructure development programs and projects, averaging 5.7% of GDP, the highest in Southeast Asia. Vietnam’s infrastructure capacity and quality ranking increased by 16 steps, ranking 79/137 countries (according to the World Economic Forum’s assessment) [2, 3]. However, alongside the achievements, public investment in transport infrastructure construction reveals some shortcomings, among which the most challenging one is the low disbursement rate and complicated disbursement mechanism.

From 2016 to 2019, the disbursement rate of public investment capital reached an average of 72% [4], and as shown in Table 1, this percentage has not increased since 2020.

Table 1. Summary of results of public investment disbursement according to the assigned plan for the period of 2019–2022 (as of December 31 each year)

Content	2020		2021		2022	
	Plan (VND billion)	Percentage of implementation	Plan (VND billion)	Percentage of implementation	Plan (VND billion)	Percentage of implementation
Domestic capital	497,042.9	75.33%	489,098.2	75.43%	610,712.69	76.63%
Foreign capital	45,379.1	55%	51,550.0	28.40%	34,800	26.5 %
Total capital (excluding capital carried forward from the previous year)	542,421.9	73.63%	540,648.2	70.95%	645,298.3	70.8%

(Source [5])

Table 1 shows a low disbursement rate of public investment capital compared to the plan, indicating many obstacles in this task. The main reasons include: Poor quality of project preparation (the project appraisal, and budget approval processes still have errors, and planning is not yet synchronized); legal regulations have not been fully ensured; the rules on the formulation, appraisal, and approval of contractor selection plans, and bidding documents are not strict; site clearance work faces many difficulties [4, 5].

For transport infrastructure projects, the average disbursement rate over the past period was 69% [2], especially in the early years of the plan, the rate was very low, and there is still a situation of having to reallocate capital to accelerate the disbursement progress, especially foreign capital. The mid-term public investment plan for the 2021–2025 period was approved by the National Assembly in July 2021, but as of mid-2022, mainly transition projects from the previous period were being implemented, and new projects were in the process of preparation, applying for investment policy approval (with a timeframe of about 6–8 months).

Additionally, the distribution of public investment capital often starts off low and picks up in the second part of the year. This issue has been around for a very long time and has now become an unavoidable rule. According to statistics, during the 2019–2022 period, the disbursement rate of public investment capital in the first 8 months of the year reached about 34–47% of the plan assigned for the whole year, with the lowest being in 2022 at 34.86% (Fig. 1).

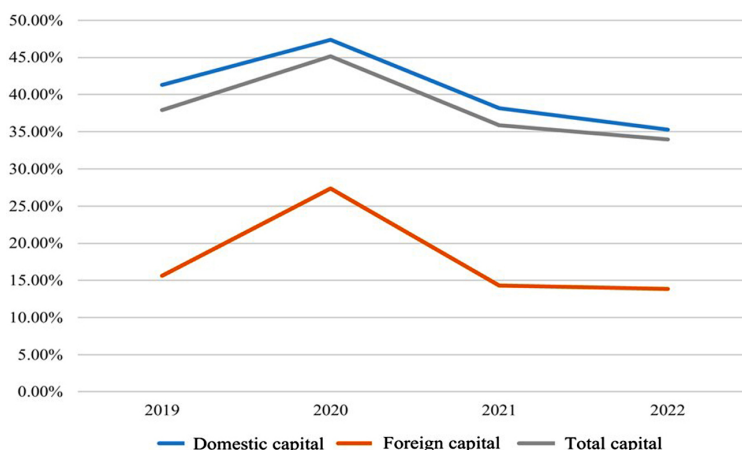


Fig. 1. Accumulation of payments for the first 8 months of the year in 2019–2022 (Source [5])

The disbursement of public investment capital tends to be concentrated towards the end of the year due to the specific nature of transport infrastructure projects. Contractors need time to carry out construction, accumulate sufficient volume to conduct acceptance and payment.

## 2. Literature review

The reports [6–8] all delve into the realm of Public Investment Management (PIM) with a specific focus on disbursement-related matters. A report [6] emphasizes the significance, particularly for developing nations, of conducting prior assessments on the relative effectiveness and efficiency of PIM systems. It advocates a flexible funding review process, typically integrated into the annual budgeting procedure, to accommodate adjustments in disbursement patterns in response to evolving project circumstances. During the project implementation phase, stakeholders must pay heed to various contract modalities. Inadequate contract management

can lead to payment delays or unauthorized disbursements, potentially undermining a project's progress. In extreme scenarios, funds may be disbursed before project commencement, compromising the contractors' performance incentives. This study assesses Vietnam within the spectrum of Emerging PIM systems alongside countries such as China, Vietnam, Brazil, and Peru. The authors [7] recommend periodic monitoring of disbursement performance vis-à-vis budgetary plans coupled with mid-term project evaluations. Research [8] identifies eight "must-have" characteristics essential for assessing the efficacy of public investments, employing a structured questionnaire framework. Several questions pertain to the disbursement activities. What is the completion rate of the public investment program (average annual rate over the past five years) calculated as the annual public investment budget divided by the estimated cost required to finalize the current public investment program? How does this rate vary across critical sectors such as education, healthcare, water supply and sanitation, transportation, and energy?

Regarding the improvement of legal framework for public investment, the studies [7, 8] establish a legal framework for public investment activities and management. This indirectly serves as a basis to determine the main regulatory content of public investment law in countries with transitioning economies. Additionally, the research [9] provides effective public investment management experiences in OECD countries. It aims to: (1) identify the capacities necessary for sub-national governments to design and implement effective public investment strategies for regional development, and (2) offer practical guidance for assessing and strengthening these capacities in the context of multi-level governance.

The work of Myers and Laursen provides a summary and determination of the state's role in implementing plans and disbursing public investment capital in transport infrastructure construction in new EU member countries. Numerous studies have underscored the critical importance of robust planning and management systems for optimizing infrastructure investment. An analysis of past EU accession endeavors reveals significant disparities in outcomes linked to the efficacy of countries' planning and utilization of available structural funds. Moreover, international evidence has underscored the pivotal role of proficient public investment planning in fostering productive infrastructure development. For instance, within the cohort of former "cohesion" nations, Ireland's exemplary planning practices have yielded commendable results, whereas Greece has encountered challenges in leveraging the opportunities associated with accession. Similarly, high-growth economies beyond the EU have attributed their success to the implementation of high-quality processes and procedures for capital investment planning and management. Examples from nations such as Chile, Korea, and Malaysia highlight the universal applicability of effective planning frameworks for driving infrastructure growth and economic development [10].

The studies on public investment in Vietnam mainly focus on exploring and addressing two issues: the current state of public investment legislation and the implementation of public investment regulations (in which most authors focus on the economic and practical aspects of public investment in Vietnam) [4, 11–15]. Specifically, the authors [11, 12] identify a series of shortcomings: scattered investment, lack of coherent legal frameworks, lack of planning, corruption, and embezzlement. Ministries, sectors, and localities have not yet established a unified criteria system for allocating, monitoring, and evaluating public investment capital. Besides, they have not been resolute in resolving issues related to fund disbursement, leading

to project delays. According to the studies [13–16], the public investment legislation has not kept up with the practicalities.

Delving into the content of public investment disbursement, the article [17] conclude that the disbursement work depends on several factors, including institutional frameworks, policies, and legislation. The Ministry-level scientific projects [5, 18] analyze some objective factors of the economy that influenced the progress of public investment disbursement during the 2016–2020 period.

Regarding transport infrastructure, the studies [4, 19] reach a common conclusion that slow disbursement of public investment in the transport sector is due to inadequate implementation and lack of resolute actions and unified understanding of the Public Investment Law among State management agencies.

These studies essentially establish theoretical and practical foundations, provide recommendations for improving public investment legislation in Vietnam. They provide references for authors to conduct research and propose solutions to improve public investment disbursement in transport infrastructure projects.

### **3. Research methodology**

In the scope of a scientific article, to obtain data and information on the current status of public investment disbursement, the authors use the method of collecting data from current legal regulations, reports of the Government, Ministry of Transport, Ministry of Finance, and studies conducted by domestic and international researchers. Based on the collected data, they proceed with analysis and evaluation of the current situation, as well as an overall assessment of relevant studies.

To identify this more objectively, in addition to studying previous documents, the authors developed a questionnaire that included seven criteria to evaluate their influence on disbursement work. The authors conducted a survey and asked for opinions from experts working in the field of public investment management, investors, project management boards or contractors in the field of transportation infrastructure, with experience of five years and more. Using a 5-level Linkert scale, the rating increased from 1 to 5 (1 – Completely disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly agree).

SPSS software was used to determine the extent of the influence of the criteria. Subsequently, solutions and recommendations were proposed.

## **4. Research findings**

### **4.1. Some shortcomings in the disbursement process of transport infrastructure projects**

The above analysis reveals various shortcomings in public investment activities and public investment disbursement in general. Transport infrastructure projects are not exempt from these issues, as they have experienced low disbursement rate and prolonged delays over the

past few years. Within the scope of the article, the authors focus on analyzing the obstacles encountered during the disbursement process throughout the construction investment phase in the period of 2016–2022.

#### 4.1.1. Input factors

*Natural conditions:* Construction projects using public investment capital involve lengthy procedural preparation, from applying for a policy to project formulation, appraisal, and approval, which often extend until the second or third quarter of the year before construction commences. However, in some regions, this is the rainy season, making it impractical to proceed with construction and resulting in project delays, especially in mountainous areas where transportation is challenging. For instance, in road maintenance projects, the processes of planning, allocation, and budgeting are overseen by multiple agencies following state budgetary procedures [20]. Annually, the National Assembly approves budget expenditure in November. At this point, the Ministry of Transport receives its budget allocation, and subordinate units proceed by refining expenditure plans, approving them, and organizing tenders across multiple levels, often extending into the first or second quarter before on-site activities commence. This timeframe coincides with the onset of the rainy season, exacerbating delays in maintenance activities and leading to rapid road deterioration and increased repair costs.

*Operational capacity:* Legal compliance in public investment project management is not strictly enforced. Many projects fail to undergo the process of planning, approving contractor selection plans (during the investment preparation phase), as evidenced by the Lo 2 Bridge project on the Vo Van Kiet route – Vinh Long province; in September 2023, the Chairman of the People’s Committee of Vinh Long province issued Decision No. 2176/QD-UBND approving the additional contractor selection plan. Some projects implement contractor selection inappropriately, dividing packages, or making direct appointments contrary to regulations, such as the construction of the Ong Doc River Bridge, the Dong Tay route, and the Ganh Hao Bridge, in Ca Mau province (with a total investment of 690 billion Vietnamese dong), comprising 22 small-scale packages, with estimated prices approved at less than 500 million Vietnamese dong, employing streamlined direct appointment procedures. This approach involves “splitting packages into smaller ones for direct appointment of contractors.” Many packages lack adequate bidding documents, incomplete requirements such as unspecified advance payment amounts, frequency of advances, and detailed contractor competency requirements (e.g., the Thang Long Bridge construction project) [21, 22].

Furthermore, the capacity for project management, consulting, and construction of involved parties remains limited. Some weak investors and contractors have low financial capabilities, leading to an inability to meet the input requirements and causing construction progress to stagnate.

*Construction materials:* The prices of key materials (cement, steel and sand) have increased significantly, with unpredictable fluctuations, especially during the period of 2019–2022. Meanwhile, the determination and announcement of construction prices at localities have not kept up with the reality, affecting price adjustments in contract payment and settlement. This situation has forced contractors to proceed with caution and resulted in project delays.

Specifically:

- According to statistics of the Ministry of Construction, the steel price in 2021 increased by 45–50% compared to 2020, and it is projected to increase by 15–20% in 2022 compared to 2021. In 2022, the cement price increased three times, with a 13.2% increase compared to the same period in 2021 and a 5.55% increase compared to the end of 2021 [23]. Unusual increase in raw material prices have impacted *small-scale contracts* because, according to bidding regulations, small-scale contracts must be implemented under lump-sum contracts (without price adjustments). *Fixed-unit price contracts* also face difficulties as the payment rate is fixed throughout the implementation process. For *contracts with adjusted unit price*, current legislation clearly defines methods for price adjustment, allowing investors and contractors to choose from various options (adjustment based on construction price index, major building material price index, specific material price lists, direct offset methods, etc.). However, payment and settlement of these contracts also encounter obstacles due to delays in the publication of material prices and construction price indices in many localities (every three months), which do not keep up with market fluctuations [24].
- Furthermore, the announced prices of materials in localities do not align with the market and have discrepancies with the actual prices. For example, the announced price of construction materials in the fourth quarter of 2022 by the Inter-Department of Construction and Finance in Thanh Hoa City was 225,000 VND/m<sup>3</sup> for sand and plaster, while the actual market price was 400,000 VND/m<sup>3</sup>. In the road project in Hoang Hoa district (Thanh Hoa province), the announced land price for leveling was 20,000 VND/m<sup>3</sup>, but the actual price was 49,000 VND/m<sup>3</sup> (excluding VAT) [3, 25]. According to regulations, all construction projects using public investment capital must use the announced prices by the Department of Construction as the basis for bidding, contract signing, and settlement. Many companies hesitate to advance funds and have to halt construction because the more they work, the more they incur losses. If they advance funds, it is considered purchasing construction materials. However, due to the discrepancy between the announced prices and the actual prices, they cannot explain the invoices and documents for material purchases to the tax authorities. For example, in two expressway projects of Mai Son – National Highway 45 and Phan Thiet – Dau Day, based on the announced prices and price indices of localities in 2021, the contract adjustments should have been around 5–7%, but based on the actual price fluctuations, they should have increased by 17–18% [2, 25, 26].

*Funding:* The common issue in various localities is the presence of awaiting funds for projects, where the plans have been assigned but the localities have not completed the procedures for disbursement. In some localities, the preparation and project selection work lack vision and fail to allocate appropriate funds for subsequent periods. There is a lack of synchronization between the project implementation progress and the detailed budget plan. Poorly prepared projects lead to multiple project adjustments, increased costs, making it difficult to secure funding. For example, the Cua Luc 1 Bridge project (Quang Ninh province) faces obstacles in determining land sources and discharge locations, leading to delays in implementation and an

increased construction investment cost of VND 210 billion. The State budget allocated for the project in 2018–2019 had to be extended until 2022, but it is still incomplete [5].

*Due to COVID-19 pandemic*, the Ministries and localities almost prioritized time and human and material resources for pandemic control, along with social distancing measures, these caused temporary suspensions in construction activities.

#### **4.1.2. Mechanisms, policies and legislation on public investment**

The system of legal documents is not consistent and clear, which creates difficulties in the process of payment and settlement, affecting the disbursement progress. Specifically:

- The implementation of public investment projects must comply not only with the Public Investment Law No. 39/2019/QH14 but also with many other laws, e.g the Planning Law, Construction Law, Land Law, Procurement Law, etc. These regulations govern the entire project lifecycle from preparation to completion. Many procedures require opinions from various Ministries, sectors, and levels, leading to prolonged disbursement process or even inability to disburse funds. Some legal provisions overlap and lack consistency in content. For example, the authority to extend the implementation time and disburse capital according to the State Budget Law No. 85/2015/QH13 is determined by the People’s Council at the district or commune level. However, the Article 68 of the Public Investment Law states that in cases of force majeure, the People’s Council at the provincial level is responsible for making decisions regarding local budget capital.
- The Public Investment Law still has several shortcomings, including certain provisions related to disbursement for construction investment projects. (1) The Public Investment Law’s Article 67 states: “People’s Councils at all levels adjust medium-term and annual public investment plans with local budget capital.” This means that adjustments to annual capital plans between agencies and units must wait for the People’s Council meetings. The People’s Council holds regular meetings twice a year and 1–2 extraordinary meetings (if necessary). This is considered one of the reasons for the low disbursement rate, as it is challenging to transfer funds from projects with less or no disbursement capacity to projects in need. (2) Regarding investment decision-making authority specified in Clause 1, Article 35, it is understood to be the responsibility of the Prime Minister. However, projects with strong disbursement needs mainly include national target programs and national key projects, which have already been decided by the National Assembly [27].
- Some legal regulations on payment and settlement of public investment capital still have certain obstacles that need improvement. The management of payment (allocation inspection, advance, payment and settlement) is currently regulated across multiple different Circulars, causing difficulties for units during implementation. Moreover, the scope of regulation in these new Circulars on managing and disbursing State budget is not fully comprehensive compared to the scope of regulation in the Public Investment Law (which also covers funds from lawful revenue sources of State agencies and public non-business units for investment purposes).



### 4.1.3. Site clearance, compensation and resettlement

One of the common causes of slow disbursement in transport infrastructure projects is the site clearance process. Delays in site clearance occur due to slow complaint settlement, delayed site handover, and slow enforcement, leading to delays in disbursing capitals for site clearance compensation, construction and installation.

In terms of sequence, regulations, boundaries, and especially compensation prices for land and attached assets, many difficulties arise. The determination of compensation prices for land often falls below market prices. State regulations provide general guidelines, but their application at the local level requires research, opinions, and specific guidance. At present, the Ministry of Natural Resources and Environment is soliciting feedback on the draft amendment of the Land Law 2013. In the near future, local authorities, investors, and operational units will also require additional time to fully comprehend these changes.

Furthermore, there is a conflict between the regulations on site clearance in the Public Investment Law and the Construction Law. Specifically, the Public Investment Law's Article 5 allows Group A projects to separate compensation and resettlement as independent projects, to be implemented before the investment policy is issued. Other types of projects can only be implemented after investment decisions are made. However, according to the Construction Law's Article 134, the costs of compensation, support, and resettlement are included in the total construction investment, so they cannot be separated from the construction project.

## 4.2. Evaluation of public investment disbursement in transport infrastructure construction

From domestic and foreign studies in Section 2 and the analysis results of the current situation in Section 4.1, to gain a more objective understanding of this situation, the authors developed a questionnaire consisting of seven criteria to evaluate the disbursement process, conduct a survey and seek opinions from experts, determining the influence extent of the criteria. A total of 240 questionnaires were distributed and 225 valid responses were received for processing and analysis using SPSS software. The results are presented in Table 2.

The results show that *all seven criteria have a certain level of impact on the disbursement process, all approaching the average value, indicating that there are many factors affecting this task, not overly biased towards any particular one. Besides, the results also indicate that all stages in the public investment disbursement process have an average value of <3 (below average), demonstrating that there are several shortcomings in public investment management in general and disbursement in particular, which do not meet the requirements.* This accurately reflects the investment reality during the 2016–2020 period: many important national projects and key projects lagging behind, with a low disbursement rate, dispersion and wastage.

*In particular, the criteria for institutions, policies, and legislation; the ability to meet capital needs; organization and implementation of projects; land clearance have the lowest average values. These critical issues need to be resolved to boost the disbursement process.* These analysis and evaluation results serve as the basis for the authors to propose practical solutions to improve the disbursement process of transport infrastructure projects with public investment capital.

Table 2. The influence extent of the criteria on public investment disbursement in transport infrastructure construction

No.	Criterion	Mini-mum	Maxi-mum	Mean	Std. Deviation
I	Institutions, policies and legislation on public investment				
I.1	Legislation on public investment has shortage	2.00	5.00	2.62	0.8235
I.2	Regulations on payment and settlement of public investment capital are overlapping	2.00	5.00	2.75	0.8561
II	Deployment and implementation disbursement of public investment capital				
II.1	The decentralization of public investment management is still unclear	2.00	5.00	2.70	0.8482
II.2	Quality of staff and management capacity of investors is low	2.00	5.00	2.92	0.8135
II.3	Objective factors (natural conditions, COVID-19)	2.00	5.00	2.91	0.7899
III	Ability to meet capital needs, ensure disbursement progress	2.00	5.00	2.77	0.7942
IV	Site clearance, compensation, and re-settlement work is slow	2.00	5.00	2.84	0.8682

(Source: Analytical results of the study)

## 5. Solutions to accelerate public investment disbursement in transport infrastructure construction

Promoting the disbursement of public investment funds in transportation infrastructure construction must be accompanied by ensuring the quality of the projects and the efficiency of fund utilization. To achieve this goal, it is necessary to focus on the following key tasks and solutions:

### 5.1. Solutions on institutions, policies and legislation on public investment

Implementing public investment projects involves many legal regulations from different Ministries and sectors, so there needs to be unity and clarity so that localities, investors, and contractors understand the process and comply with the regulations.

The Public Investment Law plays an important role, however, to control public investment effectiveness, a legal system with the intervention of many different legal forces is needed. Therefore, amendments should be made in the direction: The Public Investment Law acts as

a framework law, applicable for the management and use of public investment capital, and does not address issues related to bidding, land, construction, and environmental protection. According to the authors, it is necessary to clarify the role of the Public Investment Law compared to other laws with precise, understandable, and straightforward legal documents. In the field of construction, when it is necessary to adjust issues related to construction activities, the Public Investment Law should focus on the contents: Investment decisions, capital allocation plans, measures to ensure sufficient capital sources, measures to limit the status of arrears, prolonged construction, and stoppage due to lack of capital, or unscientific capital allocation. Other issues in the project preparation, survey, design, construction, quality assurance, acceptance and handover for use should comply with the Construction Law.

The Public Investment Law needs to be supplemented with a provision in Article 3 on the principle of law application, affirming the priority of other laws' effect in investment activities with specific characteristics that the Construction Law is a prime example.

To continue enhancing and establishing a secure legal framework for the implementation of public investment plans, streamlining administrative procedures, and thereby facilitating disbursement, it is necessary to implement the following solutions: (1) Specific assignment of responsibilities to each ministry, central agency, and local authority in reviewing legal regulations. This involves assigning concrete responsibilities to each ministry, central agency, and local authority in reviewing legal regulations pertaining to public investment. (2) Direct involvement and accountability of ministers, heads of equivalent agencies, and chairpersons of provincial and municipal People's Committees in reviewing current regulations on public investment, identifying shortcomings in practical implementation. Based on this foundation, immediate amendments and supplements should be proposed for regulations falling within their jurisdiction, and recommendations should be made for amendments and supplements to issues beyond their jurisdiction.

## **5.2. Solutions in disbursement deployment and implementation**

There is a need to clearly define specific tasks and highlight the responsibilities of the Ministers, leaders, and the People's Committees of provinces and cities in all activities related to disbursement. Assign a team of leaders to directly manage key and large-scale projects. Periodically report on the implementation and disbursement of public investment capital on a monthly basis as stipulated. Propose strict handling of the heads of units, investors, and contractors with slow disbursement, or do not disburse all the capital allocated.

The Ministry of Transport needs to collaborate with the Ministry of Construction to develop specific guidelines for adjusting contract prices due to fluctuations in material prices. These guidelines should provide detailed instructions to local authorities on survey methods, pricing of materials up to the construction site, as well as index calculations for transportation projects, ensuring adherence to schedules.

To assist with the slow disbursement, the Government has developed a team to inspect and expedite capital disbursement. However, in order to successfully complete the tasks, it requires the selection of enthusiastic and meticulous staff in management. The main tasks of the team need to be focused on to remove difficulties and accelerate disbursement of public investment capital.

### 5.3. Solutions on capital

The Ministry of Transport and localities need to decisively regulate capital sources from slow disbursement projects to feasible disbursement projects; capital should be increased for any projects that disburse swiftly and successfully and decreased for any unproductive projects. Focus on auditing completed project settlements, definitively solve backlog projects with delay settlement to limit arrears in payment, affecting capital turnover. At the same time, strictly control the necessity and scale of each project according to the approved plan, ensuring investment efficiency and outputs of each project.

Furthermore, ministries, central agencies, and local authorities must closely adhere to the objectives, bases, principles, requirements, and procedures for formulating and appraising medium-term and annual public investment plans as stipulated in the Public Investment Law. Allocation of public investment funds, in addition to complying with authorized principles, criteria, and standards, must also align with economic and social development goals, planning considerations, investment capital balancing capabilities, and ensure transparency, openness, and fairness.

Review and prioritize full capital allocation for transition projects, arrange the order of priority for new commencement of projects ensuring feasibility in investment procedures and disbursement. Publicize the implementation situation and capital disbursement rate on mass media.

Facilitate easier access to funding for investors/project managers through streamlined and expedited bank loan procedures, reducing instances of overdue payments for projects/works that could adversely affect the cash flow of executing units.

### 5.4. Solutions for site clearance and resettlement

The Ministry of Transport needs to coordinate closely with localities to speed up compensation, site clearance, actively persuade people to agree on the policy, ensure the timely implementation.

One of the current shortcomings of this study lies in land valuation. State-determined land prices typically range from 30% to 70% of market prices, even for agricultural or non-agricultural land, and only approximately 30% to 40% for urban land. It is imperative to establish land prices based on market principles, which include the principles of highest and best use, substitution, anticipation, supply and demand, expected future benefits, suitability, and contribution. To achieve this, according to the author group: (1) The government must issue standards for land valuation (standards, principles, valuation methods). (2) Land valuation should be conducted by professional valuation organizations with specific regulations regarding these organizations. (3) Establishing a system of information and data on land valuation. (4) Expand the application of auctioning and bidding for land use rights when the state assigns land to organizations or individuals in need of land use.

In addition, it is necessary to study and adjust the provisions of the Construction Law and the Public Investment Law to be appropriate for reality in the direction of allowing the construction of separate resettlement, site clearance and support projects, and considering these as project investment preparation activities or implementation preparation, limiting impacts on progress and disbursement when there is no “clean site”.

## 6. Conclusions

The article studies the status of public investment disbursement in transport infrastructure construction in various aspects, using precedents from both domestic and international research, reports of State management agencies and legal documents. Thereby pointing out the limitations in the following aspects: Input factors (natural conditions, operational capacity, construction materials, ability to meet capital needs, ensure disbursement progress); Mechanisms, policies and legislation on public investment; Site clearance, compensation and resettlement. Simultaneously, the authors establish the evaluation criteria for this task, conduct interviews, consult experts, and use SPSS software to quantify the level of influence. The survey results are also consistent with the analyzed situation, as all seven criteria affect disbursement activities, with mean values ranging from 2.62 to 2.92. The means of the different criteria indicate varying degrees of influence. Among them, numerical criteria I.1, I.2, II.1, III, and IV (Table 2) had the lowest mean values, reflecting the most unresolved issues. Based on these, some solutions are proposed to improve the public investment disbursement in transport infrastructure construction, which are: Institutions, policies and legislation on public investment; capital; disbursement process; site clearance and resettlement. This is the basis for building synchronous, modern and connected transport infrastructure to meet the needs of economic and social development.

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