

A.Kh. Markosyan, V.G. Khachaturyan, H.V. Tokmajyan

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UDC –69.003.12:338.3

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Ashot Kh. Markosyan

Armenian State University of Economics
128 Nalbandyan St., 0025, Yerevan
e-mail: ashotmarkos@rambler.ru
ORCID iD: 0000-0002-5077-4253
Republic of Armenia

Vahagn G. Khachaturyan

Political, Legal and Economic Researches and Forecasting NGO
125 Armenakyan St., 0011, Yerevan
e-mail: vahagnkhachaturyan7@gmail.com
ORCID iD: 0000-0003-0412-9170
Republic of Armenia

Hovhannes V. Tokmajyan

Institute of Water Problems and Hydro-Engineering
Named After I.V. Yeghiazarov
125/3 Armenakyan St., 0011, Yerevan
e-mail: tokmajyan.hovhannes@gmail.com
ORCID iD: 0000-0002-2315-7233
Republic of Armenia

<https://doi.org/10.56243/18294898-2025.1-3>

Abstract

Recently, large-scale reforms have been implemented in the construction sector. Noting the high level of effectiveness of the innovations being implemented, there has been a need to make certain adjustments to the existing regulatory framework and ensure compliance with the provisions established by legal acts.

The analysis of the processes of developing and regulating design estimation documents revealed a number of fundamental problems, which are caused both by certain gaps in the regulatory framework and by widespread violations of legality in practice. The current regulatory and legal framework of the Republic of Armenia, despite its structural logic, is often ignored in design and procurement processes, as a result of which the efficiency, quality, and protection of public interest of construction projects are seriously jeopardized.

In particular, there is often an artificial reduction in the duration of the project and a reduction in funding, contrary to the minimum thresholds set in the current regulatory acts. In

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this situation, design organizations are forced to carry out complex, technically responsible work in short terms and with limited resources, which increases the risk of errors, deviations from estimates, and safety risks.

The analysis shows that the entire responsibility for design errors is, as a rule, placed on the design organization, while the role of the client in organizing a tender in violation of the conditions is often ignored. This legal imbalance seriously undermines the institutional stability of the development process.

As a result of the research, a package of recommendations was developed aimed at strengthening regulatory thresholds, equitable distribution of responsibility, and realistic planning of the design schedule and cost. Special attention was paid to the need to revise a number of provisions of construction standards, as well as to define the relevant offense and introduce administrative liability mechanisms.

To ensure the stability and quality of design processes, it is necessary to simultaneously improve the legal framework, increase the accountability of the client, and strengthen the institution of independent expertise. This will create an efficient and reliable environment while maintaining the balance of public interest, safety, and financial responsibility.

Keywords: project estimation documents, construction standards, technical regulations, design duration, evaluation mechanisms, risk level.

Introduction

The legal, technical, and economic regulation of the process of developing design and estimate documents is of great importance in ensuring the effective management of the construction sector and the targeted use of public funds. Against the backdrop of the expansion of urban development programs implemented in Armenia in recent years, it has become obvious that there is a number of operational asymmetries at the stages of the design process, which negatively affect both the quality of program implementation and the effective distribution of public resources.

Design documents not only serve as the basis for construction, reconstruction, or modernization processes, but also play a decisive role in terms of safety, engineering accuracy, economic calculations, and social impact assessment. Therefore, realistic definition of deadlines and costs for their development is vital both from the perspective of ensuring professional quality and protecting public interests.

The analysis shows that tender processes within the framework of state or municipal procurement are often not guided and organized in accordance with applicable regulatory requirements. In this case, designers are often forced to operate within short deadlines and limited budgets, which in turn leads to errors, technical shortcomings and consequences saturated with social and financial risks.

The theoretical foundations of externalities regulation are being significantly redefined by the theory of British economist Ronald Coase. According to Coase's theorem, if property rights are clearly defined and transaction costs are zero or negligible, then parties can achieve

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a «Pareto» efficient outcome, regardless of which party is initially assigned the right. This approach emphasizes the potential of market negotiation mechanisms as a tool for ensuring efficiency.

For example, in a relationship between a factory and a resident, where noise is considered a negative externality, the parties may resolve the issue by mutual agreement, according to the definition of their property rights. If the resident has a «right to silence», the factory may offer compensation for continuing the noise. By the same logic, if the right originally belongs to the factory, then the resident can pay a fee in exchange for silence. This possibility points to the role of the market in regulating socio-economic contradictions in the absence of state intervention.

The Coase Theorem has a number of prerequisites for its applicability: clearly defined property rights, low transaction costs, a balanced distribution of information, and a limited number of actors¹.

However, in the real economy, these conditions are often not met: transaction costs may be high, parties may have information asymmetries, and legal systems may be uncertain or biased. Despite its limitations, Coase's work laid the foundation for the economics of law, transforming theoretical approaches that previously directly linked the regulation of externalities to state regulation and tax mechanisms². Coase's theory is an important contribution to economic thought, and for this he was awarded the Nobel Prize in 1991³. In modern economics, approaches to regulating externalities have developed significantly, going beyond the framework of classical models. Externalities are considered not only as market failures, but also as a consequence of institutional shortcomings and information asymmetries.

In this context, market-based regulatory instruments, as well as flexible forms of institutional intervention, have gained primary importance.

In the environmental sector, the effectiveness of market mechanisms has been demonstrated by a number of experimental studies. For example, the introduction of cap-and-trade systems in the US and the EU has allowed for limiting carbon emissions without significantly reducing production⁴. The effectiveness of these systems is most noticeable in cases where the impacts are measurable and the beneficiaries are limited in number.

In the areas of technological development and the promotion of positive externalities, it is important to consider the role of government intervention. Acemoglu and co-authors argue that market incentives alone are not sufficient to promote innovation and environmentally friendly technologies, as the private sector usually does not include the full range of long-term public benefits in its calculations⁵.

¹ Coase, R. H. (1960). The problem of social cost. *Journal of Law and Economics*, 3, 1–44. <https://doi.org/10.1086/466560>

² Cooter, R., & Ulen, T. (2016). *Law and Economics* (6th ed.). Pearson Education.

³ NobelPrize.org. (1991). *The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1991: Ronald Coase*. <https://www.nobelprize.org/prizes/economic-sciences/1991/coase/facts/>

⁴ Stavins, R. N. (2019). The future of U.S. carbon-pricing policy. *Harvard Environmental Law Review*, 43(2), 279–304.

⁵ Acemoglu, D., Aghion, P., Bursztyn, L., & Hemous, D. (2012). The environment and directed technical change. *American Economic Review*, 102(1), 131–166. <https://doi.org/10.1257/aer.102.1.131>

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The use of tax regulation has become a leading tool in reducing negative externalities, especially in the automotive and energy markets. According to Bento, Jacobsen and Liu (2001), for example, fuel taxation policies can have a significant impact on the structure of consumption, but their effectiveness depends on the behavioral responses of the beneficiary groups⁶. They also emphasize that taxes must be precisely targeted and directed.

The problem of transaction costs remains a fundamental obstacle to economic efficiency. Furceri and Zdzienicka show that, especially in developing countries, institutional weakness, bureaucratic obstacles, and legal uncertainty raise transaction costs and weaken the effectiveness of macroeconomic policy⁷.

The central idea of Coase theory, regarding the possibility of effective mutual agreement between parties in the context of a clear definition of property rights and low transaction costs, faces a number of serious limitations in conditions of the Republic of Armenia⁸. When clarifying property rights in the Republic of Armenia, the differences between registration, validation of legal ownership, and actual use are often ignored. According to the reports of the RA Cadaster Committee and the Office of the Ombudsman, a significant part of agricultural lands and community resources has not been formalized or is in a state of co-ownership, which complicates the possibility of creating any mutually legally binding agreement regarding them⁹. In this case, the main prerequisite for applying Coase theory - clear and undeniable legal attribution - is simply missing.

Second, transaction costs in the Republic of Armenia cannot be considered insignificant or negligible. They include not only the costs of legal services and negotiations, but also corruption risks, unequal access to information, judicial delays, and administrative obstacles¹⁰. These costs are most evident in environmental issues, such as the possibility of an agreement between residents and companies in the area of mining operations.

In addition, information asymmetry in Armenia's economic and community life is a serious obstacle to effective market regulation. For example, in rural areas, residents are often not informed about the potential consequences of certain construction or engineering projects, which is why they cannot fully negotiate or express their position¹¹.

Finally, the ethical limits of Coase mechanisms are particularly important when the issue concerns public goods, such as clean air, drinking water, and a healthy environment. In these cases, the offer to sell rights can be perceived as social injustice, especially in Armenia's environment of poverty and inequality¹².

⁶ Bento, A. M., Jacobsen, M. R., & Liu, A. A. (2018). Environmental policy in the presence of an informal sector. *Journal of Environmental Economics and Management*, 90, 61–77. <https://doi.org/10.1016/j.jeem.2018.04.001>

⁷ Furceri, D., & Zdzienicka, A. (2020). The effectiveness of macroeconomic policies in emerging market economies: A meta-regression analysis. *Journal of International Money and Finance*, 104, 102157. <https://doi.org/10.1016/j.jimonfin.2020.102157>

⁸ Coase, R. H. (1960). *The problem of social cost*. *Journal of Law and Economics*, 3, 1–44.

⁹ RA Cadastre Committee (2022): Report on the status of real estate registration. <https://www.cadastre.am>

¹⁰ Transparency International (2023). *Corruption Perceptions Index – Armenia*. <https://www.transparency.org/en/cpi/2023/index/arm>

¹¹ Environmental Impact Monitoring Center (2021). The state of public participation in the environmental decision-making process.

¹² UNDP Armenia (2022). *Human Development Report: Inequality and Environment*. <https://www.am.undp.org>

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Based on all this, it can be concluded that the applicability of Coase theory in Armenia is very limited, both for institutional, socio-economic and legal and political reasons. This situation indicates that in Armenia, combined approaches are needed to regulate external influences, with the simultaneous use of market incentives, administrative regulation, public control and information transparency mechanisms.

Conflict setting

This study aims to identify existing problems in the regulation of the design process, analyze the causal chains of their occurrence, and formulate systematic recommendations aimed at legal, technical, and institutional improvements.

The methodological approach is based on the content analysis of regulatory documents, the identification of causal chains, and operational assessment.

Research Results

Based on the requirements of the RA regulatory documents, as well as the experience of actual application of the mechanisms operating in the sector, it was studied how the regulatory deadlines and values are violated, what consequences this causes, and what changes are necessary to regulate the situation.

In the first stage, a comprehensive analysis of the applicable legal and regulatory framework was conducted. In particular, the decisions of the Government of the Republic of Armenia, the regulatory documents adopted by the Urban Development Committee (ARNSHN 10-01-2014, ARNSHN 12-01-2022), as well as the regulations on the duration and cost estimation of the design were studied. There was a need to determine whether the current regulations have logical integrity and practical applicability at different stages of the design and estimate process.

In the second stage, a comparative analysis was carried out, during which the documentary requirements were compared with the actual practice in the field.

In the second stage, a comparative analysis was conducted, during which the documentation requirements were compared with the actual practices in the sector. Within the framework of this comparison, attention was paid to the question of how state or municipal customers ignore or bypass the minimum design deadlines and starting values of the tender established by the norms in procurement tenders, which leads to design errors, a decline in quality, as well as results fraught with technical and financial risks.

The analysis used a causal approach to identify direct and indirect links between legal gaps, operational constraints, and practices that create public risks. This approach allowed for the construction of a logical model that shows how the problem begins and develops, from a lack of a legal framework to public risks and economic losses.

An assessment of the sector's policy was also conducted, based on the principles of justice, legal proportionality, and social responsibility. The fairness of the distribution of responsibility for the results of the design between state and private actors was discussed. In this context, the norms of the RA Constitution on equality of forms of ownership and protection

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of the public interest were also analyzed in order to assess the legal and political justification of the current normative provisions.

Finally, based on this methodological framework, a set of substantiated recommendations has been developed to improve the current regulatory system. The proposals have been formulated from the perspectives of general technical development of the sector, quality control, and redistribution of administrative responsibility, with the aim of strengthening the institutional stability and public accountability of the design process.

Logic model: analysis of design regulation violations

N	Stage or phenomenon	Cause/action	Consequence (risk/problem)	Proposed solution
1	Legal basis	Government decisions, construction standards	Define the design duration, the starting price of the tender, other requirements	-
2	Customer action	The tender sets the terms and the starting price of the tender	Unrealistic conditions, pressure on the designer	It is mandatory to take into account the normative term and starting price in the tender
3	Reduced term	Design time is provided < 2 months (norm: 4 months)	Urgent work, high risk of errors	Set the minimum threshold for minimum terms according to the National Construction and Building Code
4	Reduced value	The design value does not correspond to the risk category	Underdeveloped design, insufficient expertise	Set minimum values according to Tab. 2 and Tab. 4
5	Decline in quality	Short time + understaffing	Technical errors, incorrect estimates, security disruption	Create a joint liability mechanism (client + designer)
6	Public risk	Risks to the health, environment, seismic safety of citizens	Loss of life and property	Provide for public oversight and participation in decisions
7	Result	Damage to the state or community	Penalties only for the designer, although the problem is common	Change the distribution of responsibility according to the share of fault
8	Legal and political contradiction	National Construction and Building Code of 12-01-2022 allows for a reduction of up to 25%	Contradicts the Constitution, the principles of quality and equality	Cancel point 3 of the norm or revise the entire regulation
9	Regulatory solutions	The RA Code does not provide for liability for the client	Uncontrollable situation, disproportionate liability	Establish a new article in the Administrative Code for the client

Analysis

A project is considered an architectural and construction document that is developed for the construction, reconstruction, restoration, re-equipment, modernization, expansion, repair and overhaul of residential, public and industrial facilities, engineering and transport infrastructure and their complexes, as well as for the development of development programs for residential districts, administrative districts, urban and rural communities. Design documents may also include estimate documents. In the case of designing facilities

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implemented at the expense of state or community budget funds or with their involvement, the estimate documents of the facility are necessarily developed as part of the project [12].

The processes of engineering research and design of buildings and structures are objects of technical regulation in the construction sector, to which the regulatory documents of the system establish requirements [11, 16].

Technical regulations in the construction sector are adopted to protect human life, physical and legal entities and state property, protect the environment, ensure the safety of buildings and structures, and implement other goals.

According to the requirements of the construction norms of the Republic of Armenia "System of normative documents in construction. Basic provisions" [16]:

- System regulatory documents are a means of inter-sectoral regulation aimed at fulfilling the requirements of technical regulations during the design (including survey), construction, operation and demolition of construction objects, and the production of construction products and materials.
- The normative documents of the system are planned to be developed +, ensuring an increase in the degree of independence of the organization and specialists in solving economic and technical problems during design and construction and the development of initiative. The norms should, in particular, establish conditions for ensuring quality during design, construction and operation, with requirements for the object, individual building, structure, construction or construction materials.

Design regulatory documents should be based on the experience of developed countries and take into account technically advanced requirements established by international, regional, European and interstate standards, national standards and norms of foreign countries [16].

Technical regulations should specifically provide for the processes of creating design documentation, taking into account the requirements of the technical regulations being developed, the rules and forms of conformity assessment. Collections of rules may contain provisions on the implementation of engineering surveys, rules for organizing design work [16]. The rules defining the composition and content of design documentation for residential, public, industrial buildings and structures are given in [15].

Calculations of design duration are provided by regulatory documents taking into account the performance of the main volume of work, and do not take into account the time that needs to be spent on additional work [14], including:

- 1) collection and analysis of baseline data,
- 2) calculation of loads to obtain technical conditions for connection to engineering networks,
- 3) preparation and coordination of the design task,
- 4) coordination of design solutions with authorized (interested) bodies,
- 5) development of design options,
- 6) design of external networks (in case of an order for the development of building designs),
- 7) additional development of the design due to changes in design conditions,
- 8) design of non-standard equipment,
- 9) design of prefabricated structures to be manufactured, 10) selection of the construction site (route),

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11) project expertise and approval,

12) preparation of demonstration materials

The duration of design works for infrastructure facilities: heat supply, water supply, sewage, electricity supply, gas supply, are defined in Tab. 1 of the «Design Work Duration Norms». For the sake of analysis, as an example, let us present the minimum durations defined only for the design of water systems (Tab. 1).

Table 1**Duration of water supply design work [14]**

RA	Object name, description, capacity	Design duration by stages, months		
		Two-stage		Single-stage
		Project	Working documents	Single-stage design
1	2	3	4	5
1.	Water supply network: up to 200mm diameter and 1000 linear meters	3,0	3,5	4,0
2.	The same: in 200-500mm diameter	4,0	4,0	5,0
3.	The same: more than 500mm diameter	4,0	4,5	5,5
4.	Drinking water purification plant: 0,8 thousand m3 per day	-	-	5,5
5.	The same: 12 thousand m3 per day	-	-	7,0
6.	Drainage network, including storm drain up to 300 mm in diameter and 1000 linear meters	3,0	3,5	4,0
7.	The same: of 300-600mm diameter	4,5	4,5	5,5
8.	The same: more than 600mm diameter	4,5	5,0	6,0
9.	Sewage treatment plant: up to 5 thousand m3 per day	2,0	2,5	4,0
10.	The same: 5-30 thousand m3	2,5	3,5	5,5
11.	The same: more than 30 thousand m3	3,0	4,5	7,0
12.	Pumping station	1,5	2,0	3,0
13.	Water intake unit	3,0	4,0	5,5

The design terms of the facilities given in Table 1 do not include the duration of pre-design work (development of a sketch, obtaining a geodetic marking base and technical conditions, coordination of design documents).

The design duration of engineering networks is determined as follows:

1) in the case of engineering networks with a length of less than 1000 linear meters, the normative duration corresponding to 1000 linear meters is adopted,

2) For lengths within each subsequent 1000 linear meters, the normative duration corresponding to the previous 1000 linear meters is adopted, plus 30% of the tabular value corresponding to 1000 linear meters of these norms. In particular, the normative duration of the two-stage design of a water supply network with a diameter of up to 200 mm +, according to this table 1 +, is 3 months, in the case of a length of 2000-3000 linear meters, it will be calculated as $3+2 \times 3 \times 0.3=4.8$ months. In this way, the duration of the design of an engineering network with a length of up to 5000 linear meters is calculated. In the case of lengths exceeding 5000 linear meters - 1 month is added to the duration corresponding to the first 5000 linear meters of lengths within each subsequent 5000 linear meters.

3) The norms for the duration of engineering network design entered into force on November 10, 2022, but to this day - they are widely violated by customers.

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The norms for the duration of the design of engineering networks came into force on November 10, 2022, but to this day, they are widely violated by customers. In particular, the term for a single-stage design of a water supply network with a diameter of up to 200 mm is set at 4 months. In tenders announced under the procurement procedure, as a rule, it is set at 30 days, the customer is given the opportunity to extend it for another month. That is the designer is given at least 2 times less time than planned, after which the mechanism for charging penalties begins to operate. As a result, the designer is forced to hastily compile a complex package of design and estimate documents, jeopardizing the quality of the project and maintaining a high risk of making mistakes (including in estimating the scope of work and the estimate).

It should be noted that a one-month design period is often set for other, much more complex and large-scale water facilities.

The Law of the Republic of Armenia "On Procurement" stipulates that, based on the necessity of the purchase request by the customers, in the calculation of the design duration within the framework of the development of the technical specifications of the acquired design works, it is allowed to apply a reduction of up to 25%, in accordance with the Order of the Chairman of the Urban Development Committee of the Republic of Armenia dated 03.11.2015 N26-N on approving the construction norms of the Republic of Armenia and repealing the Order of the Chairman of the Urban Development Committee of the Republic of Armenia dated January 27, 2022 N 01-N, paragraph 3 [14]. This point contradicts the Constitution of the Republic of Armenia and jeopardizes the processes of ensuring the quality of construction of state or community-owned property and structures.

In the Republic of Armenia, construction objects, based on their volume, significance, importance and complexity, as well as the safety of people and the environment, are classified into the following five categories according to the degree of risk [15]:

- 1) low-risk objects - category I
- 2) medium-risk objects - category II
- 3) medium-to-high-risk objects - category III
- 4) high-risk objects - category IV
- 5) highest-risk objects - category V.

The low-risk (Category I) objects defined in subparagraph 1 include those buildings and structures whose current renovation, interior decoration, improvement of territories and other small-scale construction works can be carried out by the developer without design and construction permits. Cases of urgent infrastructure disaster recovery work performed by supplier organizations are considered a function that does not require a construction permit, and these works may only begin after informing the competent authority, subject to signing an agreement on the restoration of damage caused to the state or community during the performance of the work.

The objects of medium risk (category II) defined in subparagraph 2 include those construction objects whose design documentation expertise is replaced by a guarantee from the design organization, and whose technical control of construction quality is replaced by a guarantee from the construction organization.

Objects with a medium to high risk level (category III) defined in subparagraph 3 include objects with characteristic indicators in the range of risk objects of categories II and IV, the design documents of which are subject to simple examination.

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The objects of high risk (category IV) defined in subparagraph 4 include construction objects of special and critical importance, the design documents of which are subject to state comprehensive examination, including examinations or professional conclusions of state authorized bodies defined by law. Objects classified in category 4 include objects of special and critical importance in the field of seismic protection, which are defined by the authorized body in the field of seismic protection.

The objects of highest risk (category V) defined in subparagraph 5 include especially dangerous and (or) technically complex urban development objects (including those of special significance in the field of seismic protection) related to the interests of two or more states, the design documents of which are subject to a special complex examination and the conditions for issuing construction permits for which are established for each individual case by a decision of the Government of the Republic of Armenia.

The approximate cost of design work for a building or structure, depending on the complexity/risk level of the objects, can be calculated according to Tab. 2. We suggest that in this sentence, instead of the word "approximate", write "minimum", and instead of the phrase "can be calculated", write "is calculated". In the current version, this norm cannot have any impact on the process of regulating the regulatory framework of the sector.

Table 2**The minimum cost of design work for a building or structure [12]**

NN	Aggregated construction cost indicator or approximate estimated cost (million drams)	The standard for basic design work in relation to the construction (reconstruction) cost as a percentage, according to the complexity/risk level of the objects (%)				
		I	II	III	IV	V
1.	Up to 10 including	5.0	6.5	8.0	-	-
2.	From 10 up to 20 including	4.0	5.5	7.0	8.5	-
3.	From 20 up to 50 including	3.0	4.5	6.0	7.5	9.0
4.	From 50 up to 100 including	2.5	4.0	5.5	6.5	8.5
5.	From 100 up to 200 including	2.0	3.5	4.5	6.0	7.5
6.	From 200 up to 350 including	-	3.0	4.0	5.5	6.5
7.	From 350 up to 500 including	-	2.5	3.5	4.5	5.5
8.	From 500 up to 700 including	-	2.0	3.0	4.0	5.0
9.	From 700 up to 1000 including	-	-	2.5	3.5	4.5
10.	From 1000 up to 1500 including	-	-	2.0	3.0	4.0
11.	From 1500 up to 2500 including	-	-	-	2.5	3.5
12.	From 2500 up to 3500 including	-	-	-	2.0	3.0
13.	3500 and more	-	-	-	-	2.0

Simple examination of design documents is carried out in a volume sufficient to verify the compliance of design documents with the mandatory requirements of legislative and regulatory technical documents of the Republic of Armenia aimed at ensuring the reliability, stability, safety, as well as human health of the architectural and construction and external and internal engineering systems of an urban development facility [13, 15].

The costs necessary for a simple examination of the design and estimate documents of facilities constructed with the funds of the state and municipal budgets are calculated from the cost of the work on developing the design documents of the facility, according to the percentages presented in Tab. 3.

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We propose, in order to avoid misinterpretations, to rewrite clause 3 in the form given in clause 4, since the deductible percentage should be applied - not to the cost of the project proposed by the contractor, but to the starting price announced in the tender documents.

Table 3

The cost of a simple expertise of design and project estimate documents for facilities being constructed with state and municipal budget funds [12, 13]

NN	Cost of development of project documentation for the facility (million drams)	Deductible percentage (cost of service provided, %)
1.	From 0.1 up to 0.5 including	12
2.	From 0.5 up to 1.0 including	11
3.	From 1.0 up to 5.0 including	10
4.	From 5.0 up to 10.0 including	9
5.	From 10.0 up to 15.0 including	8
6.	From 15.0 up to 20.0 including	7
7.	From 20.0 up to 30.0 including	6
8.	From 30.0 up to 50.0 including	5
9.	From 50.0 up to 100.0 including	3.5
10.	Over 100.0	Contractual
11.	The above (indicative) norms are set for the full volume of design documents. The costs (cost) of the service dictated by the need for a double examination of design documents are calculated from the cost of work on the development of the design documents of the facility, using the coefficient $K = 0.2$. The cost of the examination of projects for the re-equipment of basements, masonry, underground floors, as well as other premises is contractual.	

Table 4

The cost of a simple examination of design and estimate documents for facilities being constructed with state and municipal budget funds (recommended option)

NN	The starting price announced in the tender document for the development of the project documentation for the facility (million drams)	Deductible percentage (cost of service provided, %)
1.	From 0.1 up to 0.5 including	12
2.	From 0.5 up to 1.0 including	11
3.	From 1.0 up to 5.0 including	10
4.	From 5.0 up to 10.0 including Deductible percentage (cost of service provided, %)	9
5.	From 10.0 up to 15.0 including	8
6.	From 15.0 up to 20.0 including	7
7.	From 20.0 up to 30.0 including	6
8.	From 30.0 up to 50.0 including	5
9.	From 50.0 up to 100.0 including	3.5
10.	Over 100.0	Contractual
11.	The above (indicative) norms are set for the full volume of design documents. The costs (cost) of the service dictated by the need for a double examination of design documents are calculated from the cost of work on the development of the design documents of the facility, using the coefficient $K = 0.2$. The cost of a simple examination of the projects of basements, masonry, underground floors, as well as other premises is contractual, which cannot be less than the amount calculated in this Table.	

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In case the customer sets a standard for the duration of the project development in the tender package that is less than the period specified (Tab. 1) or the minimum starting cost of the design work (Tab. 2) or, as a consequence, the costs necessary for a simple examination (Tab. 4), he must:

- bear administrative liability,
- bear the risk of penalties and fines arising from a design error or delay in the delivery of the work in proportion.

The risk of design errors should also be borne by the expert, and to solve this problem, it is necessary to sharply increase the deductible percentage indicators given in Table 3 (or 4), as well as the mechanism and amount of the quality assurance guarantee provided by the contractor.

Conclusion

1. The process of developing design and estimate documents is a key component of the system in the construction sector, the effectiveness of which determines both the technical feasibility of construction projects and the effective use of public funds. This study has shown that although the regulatory framework of the Republic of Armenia currently sufficiently regulates the minimum thresholds for design duration and cost, in practice they are often violated by clients, especially within the framework of state and municipal procurement. Setting unrealistic deadlines and starting bids for the design process leads to a decline in quality, technical errors, and situations fraught with public risks. In these circumstances, responsibility is mainly attributed to the designer, while the cause of the problems is often the wrong conditions set by the client. This legal asymmetry leads not only to professional inefficiency, but also to a loss of public trust.

As a result of the study, it is recommended to review Responsibility towards those clients who bypass the legislatively established requirements in tender processes. Special importance is also attached to the establishment of the principle of proportional distribution of responsibility as an institutional guarantee of quality assurance. the current regulatory documents, in particular, the provisions of the RA Construction Norms 12-01-2022, and establish the procedure for the mandatory application of regulatory thresholds.

A complete review of the project estimation process, strengthening control mechanisms, and a balanced distribution of roles among stakeholders can significantly increase the efficiency of sector management and contribute to the formation of a safer and fairer construction environment.

2. RA Construction Norms 12-01-2022 "Norms for the Duration of Design Work" Point 3 of the Order of the Chairman of the Urban Development Committee of the Republic of Armenia No. 26-N dated 03.11.2015 on approving the construction norms of the Republic of Armenia and repealing the Order of the Chairman of the Urban Development Committee of the Republic of Armenia No. 01 dated January 27, 2022 contradicts the constitutional norm of equality of forms of ownership and jeopardizes the processes of ensuring the quality of construction of property and structures that are state or community property.

We propose:

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1. To add an article to Chapter 11 of the Code of the Republic of Armenia on Administrative Offenses (offenses in the field of urban development and housing and communal services), which will establish administrative liability for the customer for carrying out a procurement process at a competitive starting price lower than the minimum cost of design work in violation of the minimum terms of the duration of design work.
2. To invalidate the Order of the Chairman of the Urban Development Committee of the Republic of Armenia dated 03.11.2015 No. 26-N on approving the construction norms of the Republic of Armenia dated 12-01-2022 “Norms of duration of design works” and to invalidate the Order of the Chairman of the Urban Development Committee of the Republic of Armenia dated January 27, 2022 No. 01-N.

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Ա.Խ. Մարկոսյան¹, Վ.Գ. Խաչատրյան², Հ.Վ. Թոքմաջյան³

¹Հայաստանի պետական տնտեսագիտական համալսարան

²Քաղաքագիտական, իրավագիտական, տնտեսագիտական հետազոտությունների և կանխատեսումների ՀԿ

³Ակադեմիկոս Ի.Վ. Եղիազարովի անվան ջրային հիմնահարցերի և հիդրոտեխնիկայի ինստիտուտ

Վերջին ժամանակաշրջանում շինարարության բնագավառում իրականացվում են մեծածավալ բարեփոխումներ: Արձանագրելով իրականացվող նորարարությունների արդյունավետության բարձր մակարդակը՝ անհրաժեշտություն է առաջացել գործող նորմատիվային բազայում կատարել որոշակի շտկումներ և ապահովել իրավական ակտերով սահմանված դրույթների պահպանությունը:

Նախագծանախահաշվային փաստաթղթերի մշակման և կարգավորման գործընթացների վերլուծությունն ի հայտ բերեց մի շարք հիմնարար խնդիրներ, որոնք պայմանավորված են ինչպես նորմատիվ բազայի որոշակի բացերով, այնպես էլ գործնականում տարածված իրավաչափության խախտումներով: Հայաստանի Հանրապետության գործող նորմատիվ և իրավական դաշտը, չնայած իր կառուցվածքային տրամաբանությանը, հաճախ անտեսվում է նախագծման և գնման գործընթացներում, ինչի արդյունքում լրջորեն վտանգվում են շինարարական ծրագրերի արդյունավետությունը, որակը և հանրային շահի պաշտպանությունը:

Մասնավորապես, հաճախ դիտվում է նախագծման տևողության արհեստական կրճատում և ֆինանսավորման նվազեցում՝ հակառակ գործող նորմատիվ ակտերում սահմանված նվազագույն շեմերի: Այս իրավիճակում նախագծող կազմակերպությունները կարճ ժամկետներում և սահմանափակ ռեսուրսներով ստիպված են լինում իրականացնելու բարդ, տեխնիկապես պատասխանատու աշխատանքներ, ինչը մեծացնում է սխալների, գնահատման շեղումների և անվտանգության ռիսկերը:

Վերլուծությունը ցույց է տալիս, որ նախագծային սխալների համար ամբողջ պատասխանատվությունը, որպես կանոն, դրվում է նախագծող կազմակերպության վրա, մինչդեռ պատվիրատուի՝ պայմանների խախտմամբ մրցույթ կազմակերպելու դերը հաճախ անտեսվում է: Այս իրավական անհավասարակշռությունը լրջորեն խաթարում է կառուցապատման գործընթացի ինստիտուցիոնալ կայունությունը:

Հետազոտման արդյունքում մշակվել է առաջարկությունների փաթեթ՝ ուղղված կարգավորման նորմատիվ շեմերի ամրապնդմանը, պատասխանատվության համաչափ

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բաշխմանը, նախագծման ժամանակացույցի և արժեքի իրատեսական պլանավորմանը: Հատուկ ուշադրություն է դարձվել շինարարական նորմերի մի շարք դրույթների վերանայման անհրաժեշտությանը, ինչպես նաև համապատասխան իրավախախտման սահմանմանն ու վարչական պատասխանատվության մեխանիզմների ներդրմանը:

Նախագծման գործընթացների կայունության և որակի ապահովման համար անհրաժեշտ է միաժամանակ բարելավել իրավական բազան, բարձրացնել պատվիրատուի հաշվետվողականությունը և ուժեղացնել անկախ փորձաքննության ինստիտուտը: Այդպիսով հնարավոր կլինի ստեղծել արդյունավետ և վստահելի կառուցապատման միջավայր՝ միևնույն ժամանակ պահպանելով հանրային շահը, անվտանգությունը և ֆինանսական պատասխանատվության հավասարակշռությունը:

Բանալի բառեր. նախագծանախահաշվային փաստաթղթեր, շինարարական նորմեր, տեխնիկական կանոնակարգ, նախագծման տևողություն, գնահատման մեխանիզմներ, ռիսկայնության աստիճան:

**ПРОБЛЕМЫ РЕГУЛИРОВАНИЯ ПРОЕКТНО-СМЕТНЫХ ПРОЦЕССОВ
В РЕСПУБЛИКЕ АРМЕНИЯ: СОПОСТАВЛЕНИЕ НОРМАТИВНОЙ БАЗЫ,
ПРАКТИЧЕСКОГО ПРИМЕНЕНИЯ И РЕКОМЕНДАЦИЙ**

А.Х. Маркосян¹, В.Г. Хачатурян², О.В. Токмаджян³

¹Армянский государственный экономический университет

³ОО по политическим, правовым и экономическим исследованиям и прогнозам

³Институт водных проблем и гидротехники им. акад. И.В.Егизарова

В последнее время в строительном секторе были реализованы масштабные реформы. Отмечая высокую эффективность внедренных нововведений, возникла необходимость внесения определенных корректировок в действующую нормативную базу и обеспечения соблюдения положений, установленных правовыми актами.

Анализ процессов разработки проектно-сметной документации выявил ряд задач, которые обусловлены как отдельными пробелами в нормативно-правовой базе, так и распространенными нарушениями законности в процессе закупок на проектирование, в результате чего эффективность, качество и защита общественных интересов строительных проектов подвергаются серьезной угрозе. В частности, зачастую происходит искусственное сокращение сроков реализации проекта и объемов финансирования, что противоречит минимальным пороговым значениям, установленным действующими нормативно-правовыми актами. В этой ситуации проектные организации вынуждены выполнять сложные, технически ответственные работы в сжатые сроки и с ограниченными ресурсами, что повышает риск ошибок, в том числе – риски безопасности.

A.Kh. Markosyan, V.G. Khachaturyan, H.V. Tokmajyan

PROBLEMS OF REGULATION OF PROJECT ESTIMATION IN THE REPUBLIC OF ARMENIA. COMPARISON OF REGULATORY BASE, PRACTICAL APPLICATION AND RECOMMENDATIONS

Анализ показывает, что вся ответственность за ошибки проектирования, как правило, возлагается на проектную организацию, при этом роль заказчика в организации тендера с нарушениями, зачастую игнорируется. Этот правовой дисбаланс серьезно подрывает институциональную стабильность строительного процесса.

В результате исследования был разработан пакет рекомендаций, направленных на ужесточение соблюдения порогов нормативных показателей, справедливое распределение ответственности и реалистичное планирование сроков и стоимости проектирования. Особое внимание было уделено необходимости пересмотра ряда положений строительных норм, а также определения состава соответствующего правонарушения и введения механизмов административной ответственности.

Для обеспечения стабильности и качества процессов проектирования необходимо одновременно совершенствовать правовую базу, повышать ответственность заказчика и укреплять институт независимой экспертизы. Это позволит создать эффективную и надежную строительную среду, соблюдая баланс общественных интересов, безопасности и финансовой ответственности.

Ключевые слова: проектно-сметная документация, строительные нормы, технический регламент, срок проектирования, механизмы оценки, степень риска.

Submitted on 31.03.2025

Sent for review on 02.04.2025

Guaranteed for printing on 29.04.2025