

IMPROVING THE SYSTEM OF GROUPING DIRECT AND INDIRECT COSTS OF THE ESTIMATED COST OF CONSTRUCTION IN THE REPUBLIC OF KAZAKHSTAN

A. Khassen

Post-Graduate Student of Study of the Department «Economics, construction organization and property management» at the Belarusian National Technical University, Minsk, Belarus, e-mail: armanix79@mail.ru

Abstract

The article describes the system of estimated standards that exists in the EAEU countries. The author proposes new approaches to the grouping of items of direct and indirect costs included in the estimated cost of construction. The elements of costs, cost items, articles of estimated cost, which together form the estimated cost of construction at the present time, are singled out. A new system for grouping cost elements of the estimated cost of construction has been proposed and the economic essence of these changes has been disclosed. The new structure of cost items of the estimated cost and the corresponding methodological recommendations for the calculation of direct and indirect cost items of the estimated cost for the construction of buildings and structures are proposed for implementation in the Republic of Kazakhstan.

Keywords: estimated standards, estimated cost of construction, elements and cost items, direct and indirect costs.

СОВЕРШЕНСТВОВАНИЕ СИСТЕМЫ ГРУППИРОВКИ ПРЯМЫХ И КОСВЕННЫХ ЗАТРАТ СМЕТНОЙ СТОИМОСТИ СТРОИТЕЛЬСТВА В РЕСПУБЛИКЕ КАЗАХСТАН

А. А. Хасан

Реферат

В статье описана система сметных нормативов, существующая в странах ЕАЭС. Автором предложены новые подходы к группировке статей прямых и косвенных затрат, включаемых в сметную стоимость строительства. Выделены элементы затрат, статьи затрат, статьи сметной стоимости, которые в совокупности формируют сметную стоимость строительства в настоящее время. Предложена новая система группировки элементов затрат сметной стоимости строительства и раскрыта экономическая сущность этих изменений. Новая структура статей затрат сметной стоимости и соответствующие ей методические рекомендации по расчету статей прямых и косвенных затрат сметной стоимости на строительство зданий и сооружений предложены к внедрению в Республике Казахстан.

Ключевые слова: сметные нормативы, сметная стоимость строительства, элементы и статьи затрат, прямые и косвенные затраты.

Introduction

The procedure for the formation of the estimated cost of construction, which has developed in the EAEU countries, was formed back in Soviet times. The estimated cost of construction is the amount of money required for the construction of an object, the amount of which is determined on the basis of design materials using estimated standards, which are a single estimated and regulatory framework.

As in all other types of economic activity, the procedure for forming the cost of construction provides for the allocation of direct and indirect costs. A significant difference in pricing in construction is that the estimated cost of construction is calculated by the design organization on the basis of a system of estimated standards and is used by the customer and contractor to assess the volume of investments, during procurement procedures, and to pay for the work performed. Taking into account the fact that the estimated cost of construction is the main tool for managing all the cost characteristics of construction, it can be said that the procedure for the formation of cost items and items of the estimated cost of construction is of paramount importance for improving the system of estimated rationing.

Main part

In all EAEU countries, estimated standards are a set of regulatory documents on pricing in construction, which are the basis for determining the estimated cost, which includes:

- regulatory documents, guidelines, instructions and recommendations for determining the cost of construction of facilities, determining the cost of other works and costs associated with construction (the cost of design work, engineering surveys, engineering services);
- estimated norms for work in construction, established on the accepted meter of volumes of construction work (direct costs);
- estimated norms for certain expenses and costs in construction, expressed as a percentage of the accepted accrual base (indirect costs);
- aggregated estimated norms and corresponding aggregated cost indicators for assessing the cost of construction in the early stages of project consideration;

- estimated prices for construction resources included in direct costs;
- estimated prices for the transportation of goods for construction;
- prices for design and survey work for construction;
- prices for the construction of buildings and structures, formed on the basis of aggregated estimated standards and / or cost indicators of analogous objects.

Estimated norms play a decisive role in the system of estimated standards. They form the cost of direct and indirect costs, form the basis of the estimated cost of construction.

At present, in the field of pricing in construction, upon detailed consideration in the EAEU countries, a number of problems have emerged, the key of which is the outdated base of estimated norms and the discrepancy between the estimated cost of construction and the market value emerging in construction. As a result, the contractor performs some work with excess profits, while others at a loss. At the same time, as noted by K.A. Guriev, V.S. Gladkikh «The effectiveness of the process of estimating the estimated cost of construction and installation works directly depends on the elements that form this cost» [1].

O.A. Gorelova, referring to the State Program of the Russian Federation «Development of Industry and Increasing its Competitiveness» (approved by Decree of the Government of the Russian Federation of April 15, 2014) No. 328 notes that "... the formation of a single economic and technological space within the Eurasian Union predetermines new conditions for the development of construction organizations, especially in the face of fierce competition for consumers and resources» [2].

That is, improving the system of grouping direct and indirect costs of the estimated cost of construction should be an effective tool to ensure transparency of competition and management of construction costs.

The problems of obsolescence of estimated norms, their inconsistency with actual costs, are considered by such authors as E.A. Gukov [3], G.A. Vlasova, N.V. Knyazeva, T.A. Shindin [4], M.Yu. Somov [5], D.V. Chipurnov [6] O.S. Golubova [7]. All authors, speaking about the improvement of approaches to the formation of the estimated cost of construction, emphasize the need to use the resource pricing method, update prices, and prices for resources, practically do not mention that

the pricing system in construction should be transparent, focused on increasing the competitiveness of construction organizations, create conditions for a comparative analysis of the advantages of technologies and methods of production, take into account the key areas of price competition: the efficiency of the use of labor resources, machines and mechanisms, materials, production management and the rate of commercial profit. A complex multi-item system of estimated rationing and pricing in construction blurs these areas of competition, forming an approach to a banal price reduction without substantiating why this price is reduced, what factors of production ensure its reduction.

The system of estimated rationing developed by the author for the Republic of Kazakhstan is based on a new approach to the formation of estimated norms, which makes it possible to assess the impact of each type of resource used in construction on the final cost of construction work, increase the efficiency of planning in construction, and ensure the reliability of construction cost estimates in design and estimate documentation.

In the Republic of Kazakhstan, as in many post-Soviet countries, the Soviet system of regulatory documents was adopted as the basis for estimates in construction, based on which in 2001 an estimate and regulatory framework was created using the base-index method. However, as time has shown, the application of this method does not meet the requirements of either state authorities, or organizations - customers in construction activities, or contractors.

A distinctive feature of building economic relations in the Republic of Kazakhstan is that estimated norms are not mandatory for all business

entities operating in construction. They are obligatory only for construction organizations that carry out the construction of facilities financed in full or in part with the involvement of budget funds and sources equivalent to it. In addition, all construction organizations operating in construction in the Republic of Kazakhstan are private commercial organizations aimed at making a profit from construction activities. Therefore, it is especially important for them not only to calculate the price for state control of the reasonableness of spending funds, but to ensure effective cost management that will allow them to plan their activities, to assess the impact of each type of resource on business results.

An innovation of the methodological approach to the estimated rationing in the Republic of Kazakhstan is the transformation of direct and indirect cost items taken into account in the composition of the estimated norms, clearly shown in Figure 1.

In contrast to the currently existing approaches that have developed in the EAEU countries, the grouping of costs proposed by the author is based on the principle of combining elemental and aggregated costs, corresponds to the criterion of uniformity of cost elements in each article and corresponds to the traditional approach, which consists in the fact that the cost of construction includes the costs of labor resources, operation of machines and mechanisms and materials.

To identify differences, compare the existing and the systems proposed by the author, Figure 2 shows a grouping of costs that corresponds to the approach that has developed in the EAEU countries.

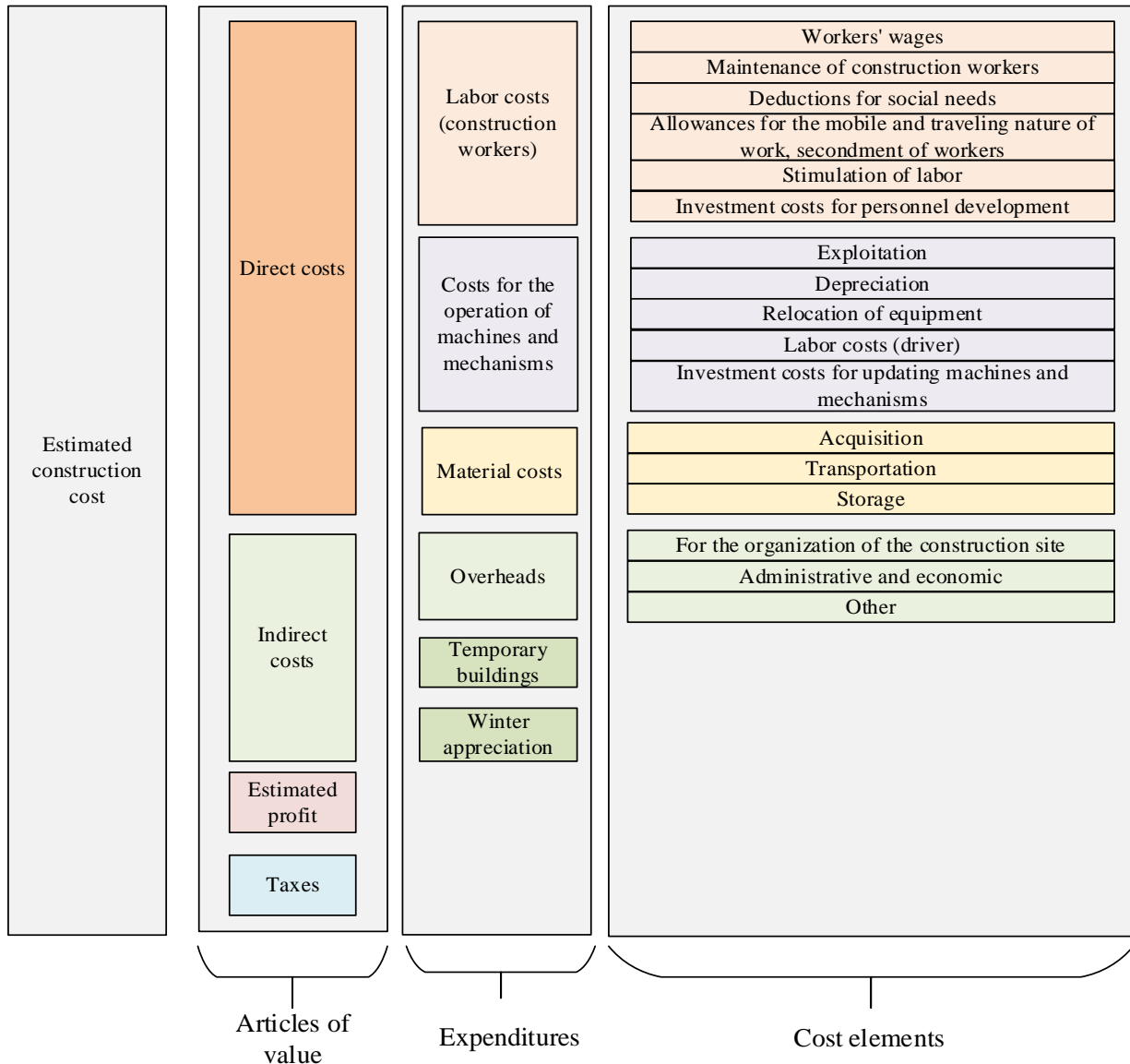


Figure 1 – New system for grouping cost elements of the estimated cost of construction

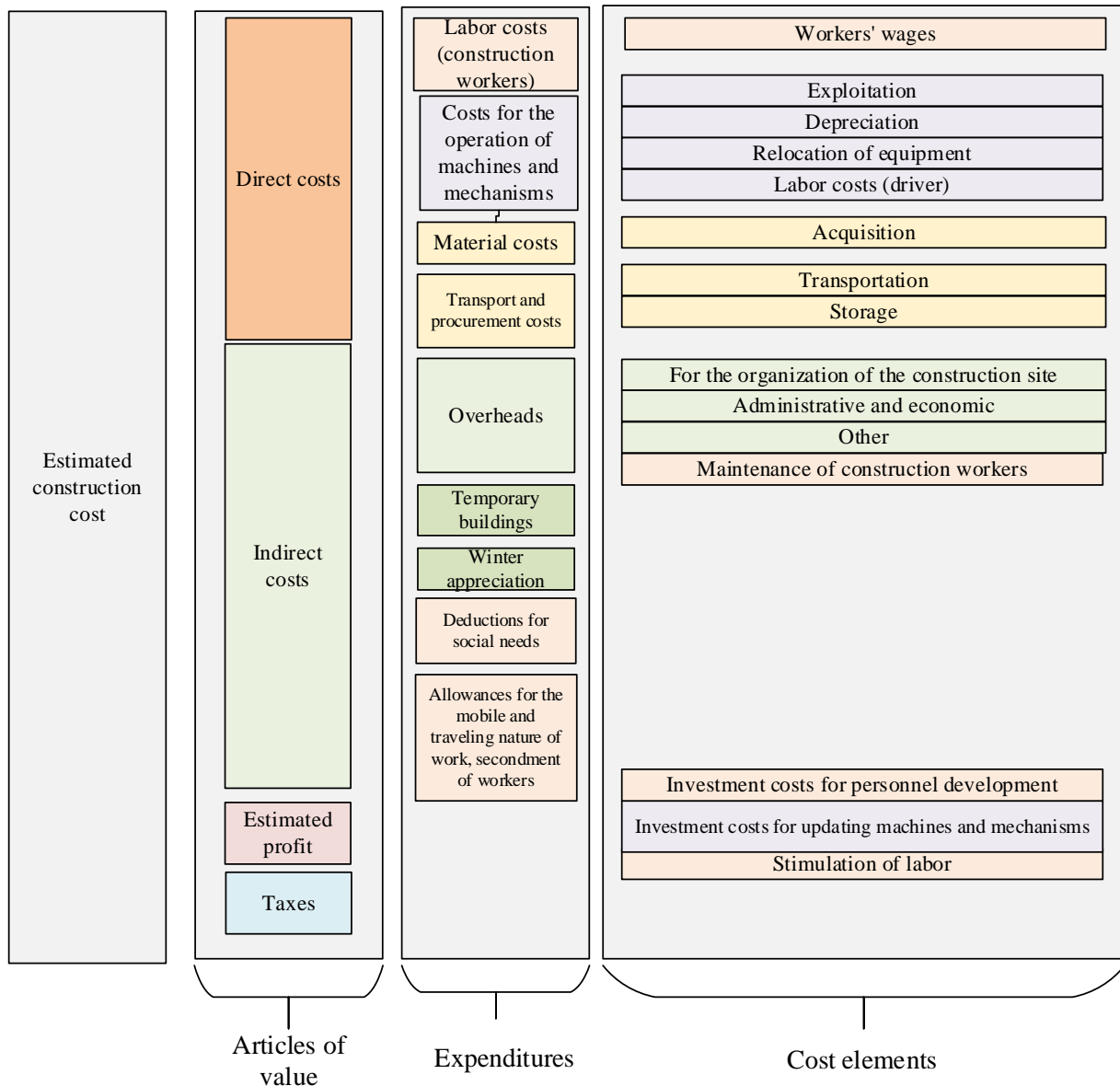


Figure 2 – The existing system in the EAEU countries for grouping cost elements of the estimated cost of construction

It should be noted that Figures 1 and 2 detail the elements of direct costs. Elements of indirect costs and estimated profit are represented by those components that are proposed to be regrouped. Articles, the composition of which does not change, are presented without details.

The new grouping of costs improved by the author takes into account:

1. Transformation of the article "Wages of workers" into the article "Costs of labor resources (construction workers)". It is proposed in this cost item to take into account not only the basic wages of workers, as it is taken into account in the Russian Federation, and the price of a man-hour wage, as in the Republic of Belarus, but the total amount of labor costs, including:
 - a) the average price of a man-hour of labor of workers;
 - b) the cost of servicing construction workers:
 - severance pay (compensation) paid in the event of termination of the employment contract (contract);
 - additional payment up to the average monthly earnings in case of temporary transfer to an easier, lower-paid job due to damage to health as a result of an accident at work or an occupational disease;
 - other payments and additional payments stipulated by the legislation;
 - the cost of providing sanitary and hygienic and cultural and living conditions at the construction site;
 - health and safety costs;

- the costs associated with the training and retraining of personnel.
 - c) contributions for social needs (including contributions to the social protection fund);
 - d) allowances for the mobile and traveling nature of work, secondment of workers (if it is necessary to perform work outside the permanent place of residence of the worker);
 - e) stimulation of labor (bonus from profit);
 - f) investment costs for personnel development (training, personnel certification, trainings, seminars, social support from profits and additional payments provided for by the collective agreement).
- The article "Costs for labor resources (construction workers)" provides for the full range of costs incurred by the organization in connection with the use of workers' labor. The value of this cost item reflects in value terms the cost of 1 man-hour of work of a construction worker. In addition, unlike the approaches existing in the EAEU countries, in the Republic of Kazakhstan this value is differentiated not only depending on the skill level (worker category), but also on the specialty (masons, assemblers, electricians, plumbers, etc.). This makes it possible to take into account the difference in wages existing in practice for workers of different professions and to ensure that the estimated and actual cost of workers' labor is consistent.
2. Transformation of the article "Expenses for the operation of machines and mechanisms". Without changing the title of this article, it is proposed to include:

- a) the cost of operating machines and mechanisms, taking into account the cost of fuels and other operating costs;
- b) depreciation charges;
- c) the cost of relocating machines and mechanisms from the base of mechanization to the construction site and back;
- d) investment costs for updating machines and mechanisms.

The principal difference of the new approach is the inclusion in the price of a machine-hour of operation of construction machines and investment cost mechanisms that ensure the renewal of construction equipment, which makes it possible to take into account the profit from the operation of equipment in the price, assess the profitability of replacing one type of equipment with another, and also compare technologies that involve the use of various types of construction equipment.

3. Saving the item "Costs of materials", including:

- a) the estimated cost of acquiring materials, products and structures at manufacturing enterprises, or from the first importers who imported materials, products or structures into the customs territory of the state, taking into account customs fees and duties;
- b) the cost of transporting materials, products, structures from the place of production to the on-site warehouse;
- c) the cost of storing materials, products and structures in the on-site warehouse.

This cost item in the system proposed by the author does not undergo any changes, compared with the current practice of grouping costs in budget documents.

4. Transformation of the item "Overhead costs", excluding the cost of servicing construction workers. In this form, overhead costs take into account only the costs of organizing work at the construction site, the administrative and economic costs of the construction organization and other overhead costs and reflect the costs of the organization associated with construction management, which allows comparing contractors by the amount of costs for performing these functions. It is this cost item that reflects the amount of money for which a construction organization is ready to organize construction production and manage construction.
5. Preservation of the economic essence and cost elements of such cost items as "costs for temporary buildings and structures" and "additional costs for work in winter" (winter appreciation). These cost items reflect the specifics of the construction site arrangement and the atmospheric and climatic conditions associated with construction, which are practically independent of the contractor.
6. Transformation of the item "Estimated profit", which in the new approach reflects the commercial benefit of the organization from the construction of the facility, excluding the cost of updating construction equipment and labor costs financed from profit. This approach allows us to compare the effectiveness of construction activities with alternative options for investing capital, to assess the profitability of construction production for the owners of construction organizations.
7. Accounting in the estimated cost of construction of taxes, fees and deductions attributable to costs and paid from the proceeds. Taking into account that there are various taxes, fees and deductions in the EAEU countries, accounting for taxes in the estimated cost allows the customer to provide for the funds that will need to be paid to the contractor, and when choosing a work contractor on a competitive basis, take into account the impact of this cost item on the amounts, payable to the contractor for work performed.

Conclusion

Thus, the cost grouping system proposed by the author creates conditions for revising the structure of the estimated cost of construction, taking into account complex cost items in it, including the entire set of contractor's costs associated with the use of various types of resources: labor of workers, operation of machines and mechanisms, building materials, overhead costs for construction management, costs for temporary buildings and winter appreciation, the estimated profit of the contractor and his taxes. This approach is focused on improving the economic efficiency of construction by creating conditions for comparing and choosing construction technologies and work methods that reduce investment costs.

The methodological support proposed by the author for the development of estimated standards for direct and indirect costs for the performance of construction work is reflected in the guiding document in the construction of the Republic of Kazakhstan - 8.01-14-2022 "Calculation of estimated prices for construction resources".

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