

VALUATION OF SPECIALIZED PROPERTIES – SUBMERGED LANDS

Daniela LĂCĂTUȘU (married RĂBOJ), Assist. PhD. Stud. Eng. – Faculty of Geodesy, Technical University of Civil Engineering Bucharest, lacatusu_dani@yahoo.com

Alexandra Nadia DABIJA, Assist. PhD. Stud. Eng. – Faculty of Geodesy, Technical University of Civil Engineering Bucharest, alexandra.dabija@yahoo.com

Dumitru ONOSE, Prof. PhD. Eng. – Faculty of Geodesy, Technical University of Civil Engineering Bucharest, balanta7@hotmail.com

Abstract: *This article aims to highlight the evaluation methods for lands covered by water, as well as the factors which we shall be considered when the valuation report is drawn up to in order to establish tax charges or rents. In a real estate market, the most important condition is for the market to be transparent and the evaluation of lands covered by water involves a thorough knowledge of the physical, legal and economic nature.*

Keywords: *real estate market, submerged lands, valuation methods*

1. Introduction

In Romania, the evaluation of real estate properties is made by certified evaluators. The valuation reports are prepared in accordance with the current evaluation standards and information provided by the real estate market. For a real estate market, the most important condition is for it to be transparent.

In this article are highlighted valuation methods based on specific assumptions and considerations. The choices made should be motivated in the valuation report based on information obtained from the real estate market. These motivations are intended to increase the quality of the valuation report. For this type of lands, upon the inspection of the property shall not be considered any other type of arrangements. When drawing up the valuation report, the authorized evaluator shall comply with the following conditions: current evaluation standards, accuracy, consistency and transparency of the report.

According to the definition, lands which are permanently under water are represented by minor riverbeds of rivers, natural lakes and artificial basins at the maximum retention level, fathoms and channels from the Danube Delta, the bottom of internal waters and of territorial and contiguous sea [1].

Water classification, from a cadastral point, can be made as follows:

- considering the administration approach;
- by location;
- by economic designation.

From an economic perspective and considering the uses of water, we mention the following ones: shipping, production of electricity, irrigation, tourism etc.

In this article, we will deal only with waters whose economic designation, refers only to current uses.

Usually, this type of lands are not traded on the real estate market, except for the case of agglomerations, when the lands end up being owned by associations or, for example are given in concession.

The situations in which these lands can generate income, exist if they are rented or given for concession, and from this point of view, the offer is very low.

The lands covered by water, can be evaluated individually or depending on neighbouring lands.

If on the real estate market exist, properties which are considered to be comparable properties (with similar characteristics) then, in order to make the land valuation, can be used the market comparison approach. If the market comparison approach cannot be applied, then the market value of property is determined considering the income it can produce, either through rental or through other type of incomes.

The following situations may occur during the evaluation:

- the property is leased to a farmers' association, to be used and to obtain income, for a determined period;
- the property is leased to an individual, in order to obtain an income, for a determined period;
- properties which are not in the vicinity of urban or rural areas and their possible use would involve higher costs than the generated income.

When determining the market value, it is necessary for the valuer to consider the existence of benefits which might add value to the property (e.g. location in proximity of a rural or urban area, roads).

As for these types of properties, there aren't usually enough market data in order to determine the market value, therefore hypothetical methods shall be applied, which may differ according to the legislation of each country.

2. Valuation methods

The principles for which is established the market value of lands covered by water, are essential in the evaluation process. We consider that the property's type shall not be an influential factor thus, when drafting the valuation report, shall be taken into consideration the existing level of supply and demand, and also shall be made a study on the best use of the evaluated property.

The first step in evaluating a property is to determine its purpose. From the most common situations, we mention:

- the property that is to be assessed is considered to be an income generating property; the form of the obtained income shall be specified;
- Its history of previous uses;
- whether it has cadastral documentation and the specification of all physical and legal characteristics.

From a legal perspective, the submerged lands are considered properties of public interest, this being the reason why for such properties there is no real estate market. The requests for valuation reports are made either for concessions, situation in which it is wanted to establish a rent for concession or for investments. Without this information, the credibility of financial institutions for establishing rents or tax fees will decrease. One of the problems encountered is to establish taxes without a database obtained from the market, cadastral documentation, topographic plans, legal documents, legislation.

Over time, were developed several methods to evaluate the submerged lands, this being closely related to the legal nature of the property and its physical characteristics. These methods have been adapted, depending on the designation, the water level use and current legislation.

2.1 Mass valuation Method

Authorized evaluators use this method when they have to value several neighbouring properties. This method involves the valuation of a group of properties, by using the same standardized procedures. It can also be applied for combined properties (the property consists both of lands occupied by water, but also of dry lands). The principle underlying this method is that the presence of water represents an increase in the value of the property. In this case the valuer estimates the market value of the land by considering both lands, with and without water.

The overall valuation must comply with current valuation standards, and all data found in the valuation report must be motivated and in accordance with reality.

The purpose of this method is to determine the market value of a sample of properties with similar characteristics.

2.2 Sale's Comparison Method

This method is most often used in order to determine the market value when we have information about properties recently traded, also called comparable properties. This method involves comparing the assessed property (subject property) to the properties recently traded or currently trading (comparable properties).

We may encounter situations where for comparable properties may exist sources of income, which we have to consider when determining the market value. A market analysis is recommended.

The use of this method involves the following:

- obtaining information which can support the valuation report, it is recommended to use information regarding both free and enhanced lands;
- when we don't hold information on lands covered by water, the market value can be assumed by using information about sites, provided that the use of this method is justified by reasoning;
- It is advisable to consider all factors influencing the market value of the property (area, location, neighbourhood, road access etc.).

2.3 Zoning method

The principle of this method is that the value of a property covered by water, which is located close to a dry land, has a higher market value compared to a property located at a considerable distance. This property provides good results when we want to assign a value to the valuated batches. As the distance from the shore increases, the market value of the property decreases. This method is applied for lands situated in the area of ports, which have mainly commercial and industrial uses, and it is required in order to establish the rents' level.

As the number of lots increases, it decreases the precision of estimating the market value. It is recommended to use a maximum number of four parcels, in order to determine the market value. The limited amount of information available in the real estate market leads to results with a low degree of credibility.

The valuation of these lands does not involve determining the value added tax.

In this category of specialized properties are included cliffs, piers, sea waterfront etc. The valuers shall obtain justificatory incomes from a variety of similar uses, if these exist in the real estate market. In the valuation report shall be found information about the current use,

availability, and fixed and variable operating costs for maintaining this current use, as well as details about the displayed interest for the location.

2.4 Extraction method

The extraction method is a method similar to the overall valuation method, where the valuer estimates a total price for both lands, the ones covered by water and the dry ones, by using a direct comparison. After estimating the total value, based on the characteristic data of comparable properties, shall be determined the value of the dry land. Based on the extraction, the evaluator shall determine the value of the land covered by water. This method is easy to apply, provided that there is sufficient information on comparable properties.

2.5 Capitalisation method

Capitalization method is based on the capitalization of the net income obtained from using a property covered by water. This method is applied when there are insufficient data available in the real estate market. The assessor must verify that the value of the obtained revenues corresponds to those of neighbouring properties. There is a risk when using this method, meaning that the income obtained by the property, used in estimating the market value, shall not be determined by hypothetical methods.

3. Market analysis

The main issue encountered when valuating lands covered by water is the lack of information. In situations where information exists, it is limited and varies depending on case. Possible sources of information may be the "Romanian Waters" National Administration, town halls which manage such lands, and cadastre offices. The properties covered by water, can be found in several forms during the evaluation process (lakes, rivers, sea waterfront, marshes, wetlands, etc.) and the analysis involves a detailed study of:

- the depth and physical characteristics of the lands covered by water (shall be requested information on vegetation, fauna, etc. regarding the bottom of lakes, rivers, waterways etc.);
- the influence of waves (it is necessary to highlight the influence that waves have, therefore this analysis is rather more suitable for sea coast and inland maritime waters; whether the banks are organized or not shall be taken into consideration);
- location (from this point lands covered by water may have in their proximity locations used as residential, commercial, industrial, agricultural or for tourism purposes, each of these uses leading to an increase in income, and to make a study on the impact they have on the local market);
- season (it is recommended to make an analysis of the earnings obtained during cold and warm seasons, also a comparison can be made in order to highlight, depending on its use, the income obtained separately during each season);
- the characteristics of the land from the bottom of the sea, lakes and rivers (the evaluator must state whether he is aware of soil contamination, if it is used in industrial purposes, or to mention what revenue or market value increase can have the property being evaluated, if improvements are made);

- the shape and area of lands covered by water (the shape of the land is an important consideration, because it can limit options for use in order to obtain revenue from these lands);
- the development trends that these lands have (there are current cases in which these lands don't have development projects, but they may occur in the near future, or, there are certain current situations, in which these lands have ongoing development and arrangement projects, but which may stagnate in the future).



Fig. 1. Uses of submerged lands [2]

The market value of submerged lands can be affected by the same economic factors (designation, location, real estate market conditions) which also impact the value of the dry lands.

In Romania, the Market Analysis of lands covered by water involves a study on the amount of money received by the institution managing the Romanian waters ("Romanian Waters" National Administration) following the signing of a concession Agreement for a long period (more than 10 years).

In order to determine the property value, by applying the hypothetical method, it is necessary to establish an improved value by capitalizing the income obtained. The income received does not reflect nor influence the enhancements made to the valued property.

In this analysis shall be considered the advantages which the property may have, depending on location, trade facilitation, tourism etc..[3]

4. Conclusions

This article does not cover all the methods, the aim is to familiarize people with this types of investigations. In my opinion valuation of submerged lands is a challenging work and a responsible valuer must test this methods, before present the final value to the client.

Submerged lands are defined as public lands, they cannot be owned by individuals or companies. However, their use can be made by private entities. This use has led to the establishment of evaluation methodologies, in order to determine the rental price for anyone interested in using the water for personal purposes.

Due to the nature of the real estate property, when determining the value, it shall not be used the market comparison method. Regardless of the method applied, for the properties

covered by water we will obtain a value equivalent to a variable percentage, depending on the value of the dry land and its designation. Depending on how high it is the value from the evaluation report, we will know just how important is the purpose of that land.

The evaluation of such types of lands varies from one state to another, depending on the current valuation standards and the law in force. This is the reason why there is no method that can be applied globally, but only generalizations which can be applied to lands covered by water.

5. References

1. Dore, L.W. and Austin, J.L. – *Valuation of submerged lands – Appraisal Journal*, p. 296-300, 2001;
2. Enns, D. – *Property Markets and Monopoly Elements – Canadian Appraiser*, p. 20-23, 2002;
3. [1] Source: <http://www.ct.upt.ro/users/CosminMusat/Topografie1.pdf>
4. [2] Source: <http://www.olx.ro>
5. *Glosar de termnei IVSC*
6. [3] Bene, I.A.M. – *Evaluarea Bunurilor Imobile*, ed. Conspress, 2012
7. *Standarde de evaluare a bunurilor din România, ANEVAR (2014) Drepurile asupra proprietăților imobiliare, ANEVAR, Editura U.T. Pres, Cluj-Napoca*
8. *Evaluarea proprietății imobiliare, ediția a 13-a, ediția în limba română, Appraisal Institute*