Taking Advantage of Voluntary Associations of Municipalities for Financing Public Investment Project

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Abstract. Due to the settlement structure of the Czech Republic which is quite extensive, there is a large number of small municipalities on its territory, which do not have the possibility to finance larger investment projects aiming at the development of their area. Therefore, it is important, if not essential, for such municipalities to join into associations with other municipalities. The article deals with the characteristics of possible forms of inter-municipal cooperation with a more detailed focus on taking advantage of voluntary associations of municipalities. The data from the municipal association register shows that a substantial part of municipal associations was created for the purpose of building drinking water supply, sewerage systems or waste water treatment plants. Although this purpose is still up-to-date, the aim of this article is to show how to take advantage of the associations of municipalities also for other investment projects and to propose an optimal way of financing. The main aim of this article is to find out if it is possible to take advantage of the associations of municipalities for financing investment activities of municipalities. Furthermore, based on the analysis of the current state of the register of associations municipalities in the Czech Republic, it tries to propose optimal ways of financing such activities. Based on the analysis of several investment projects financing in municipalities, the research evaluates whether joining of municipalities into voluntary associations and the implementation of construction works via these associations is generally beneficial for them. The resulting proposal described in the article can serve municipalities as a well-arranged guide to the organization and financing of their investment plans.

1. Introduction

Cooperation represent a very important relationship in all areas of human society, helping to achieve the desired results and objectives more easily and effectively. Cooperation is essential for reducing regional disparities and promoting regional development [1]. The Czech Republic has, compared to other European countries, a quite extensive settlement structure, which is influenced by both physical-geographical factors and the consequences of historical changes.

Co-operation of municipalities should therefore effectively, economically and in cooperation with each other provide high-quality public services. Such cooperation should be beneficial for municipalities in the long term, for example in terms of possible financial savings in joint purchases of services, or in terms of improving the performance of public administration by sharing administration of the procurement process, collecting local fees, or in terms of improving public services by joint provision of services in the field of tourism, primary education or social services. [2]
2. Cooperation of municipalities

According to the Czech Statistical Office [3], the Czech Republic has a total of 6,257 municipalities, which in terms of the possible democratic participation in governance and the proximity of self-government to its citizens, can be seen as very positive. However, from a different perspective, the Czech Republic has 3,419 municipalities with less than 500 inhabitants and a further 1,366 municipalities with less than 1,000 inhabitants. The distribution of municipalities according to their population is shown in the following table:

| Municipality population | Frequency | [%] | Cumulative [%] |
|-------------------------|-----------|-----|----------------|
| < 500                   | 3419      | 54.64 | 54.64         |
| 500 > 1 000             | 1366      | 21.83 | 76.47         |
| 1 000 > 5 000           | 1195      | 19.10 | 95.57         |
| 5 000 > 10 000          | 147       | 2.35  | 97.92         |
| 10 000 > 50 000         | 112       | 1.79  | 99.71         |
| 50 000 > 100 000        | 12        | 0.19  | 99.90         |
| 100 000 > 500 000       | 5         | 0.08  | 99.98         |
| 500 000 > 1 000 000     | 0         | 0.00  | 99.98         |
| 1 000 000 > 1 500 000   | 1         | 0.02  | 100           |

High fragmentation of municipalities brings above all the problems of limited economic possibilities and/or poor quality of public services and also the inability of the smallest municipalities to carry out large investment projects, to provide availability of basic services and good office management. In such small municipalities, inter-municipal cooperation is mostly the only option to run investment projects beyond the capabilities of one municipality providing comfort and needs of the population and they also represent a tool for the development of such a municipality. For municipalities with a larger population, inter-municipal cooperation is a great tool for the development in the field of education, tourism and culture [4].

2.1. Forms of cooperation

Forms of cooperation represent a certain legal and organizational structure of the cooperation system. The most appropriate structuring is a combination of structuring by territory and cooperating entities, of which the individual forms of cooperation have different contents of activities performed [5]. Municipalities may cooperate among themselves only in performing their autonomous competence, which is specifically carried out by:

- Concluding a contract to perform a specific task;
- Creating a voluntary association of municipalities;
- Establishment of a joint legal entity (company, cooperative, etc.). [6]

The forms of inter-municipal cooperation are more evident from Figure 1. The Figure distinguishes 4 types of cooperation actors.
2.2. Voluntary associations of municipalities

Voluntary associations of municipalities are the most basic and most common forms of municipality cooperation, directly mentioned in the Act on Municipalities, in the Czech Republic. They are usually established for a territorially coherent area, for example consisting of two neighbouring municipalities, or for an area limited by natural, technical or historical and other important elements. However, associations are founded on the basis of a common aim, whose members do not have to be municipalities that are territorially related. [5]

Only municipalities may be a member of an association of municipalities, no other legal or natural persons may enter the association of municipalities. Association of municipalities can only perform tasks falling within the independent competence of municipalities and activities for the protection and promotion of common interests, these are mainly common tasks in the areas of education, social care, healthcare, culture, public order, environmental protection, tourism, municipality cleanliness, networks of technical equipment, transport services and administration of municipal property. The joint performance while carrying out some of the above-mentioned tasks may reduce the administrative burden on municipalities, which can be really effective in small municipalities.

Voluntary associations of municipalities have a number of common features, yet they are a very diverse group differing, for example, by the purpose, intensity or content of cooperation. Depending on the purpose, two types of association of municipalities can be distinguished, namely:

- Monothematic associations of municipalities,
- Micro-regions/polyfunctional associations of municipalities.
Monothematic associations are established in order to carry out very narrowly defined activities. The most common reasons/activities are construction of technical infrastructure, operation of water mains, sewerage system with WWTP (Waste Water Treatment Plant), gasification, waste disposal, or associations established for the development of tourism. The duration of monothematic associations is usually limited to the duration of the purpose of their establishing. [5]

Microregions, or polyfunctional associations, unlike monothematic associations, cover a relatively compact area with distinctive socio-economic and geographical belonging and strive for the overall development of the area in a conceptual way.

All associations, whether monothematic or polyfunctional, are created by entry in the registers of associations of municipalities of the region in which the association is located. By entering the name of the association, registered office, subject of its activity, identification number, authorities and persons exercising its powers together with the Association Foundation Agreement, including the Association Statutes into the register, the association becomes a legal entity and from that moment it has to keep accounting according to the Accounting Act. [7]

3. Funding options of the public investment project
The issue of financing at the municipal level encounters an obstacle, which is the lack of funds. One of the ways how to deal with the lack of funds is the cooperation of municipalities. Subsequently, it was examined from which financial resources investment and operational activities of individual associations of municipalities are paid. Based on an analysis of the budgets of individual associations of municipalities and a questionnaire survey, it was found out that the associations made substantial use of the contributions from individual members, however, they mainly financed investment activities from subsidy sources. They used subsidies from both the EU funds and from the state and regional budgets. Subsidies from the state budget and the National Fund for the 2014-2020 period are focused on the financial support for 10 national operational programmes in the total amount of almost € 24 billion [8].

Individual regions support voluntary associations of municipalities activities in many areas, for example by announcing programmes from which they can draw funding. These include, for example, promoting water management and drought prevention, improving the quality of tourist centre services, promoting cycling and cycling transport, developing cultural and heritage preservation, promoting activities to improve health and quality of life, and many others [9].

One of the regions of the Czech Republic - the Moravian-Silesian Region - was chosen for a more detailed analysis of the financing of voluntary associations.

Associations are not obliged to publish details of their income, yet the vast majority of voluntary associations share this information accurately and transparently on the official website of their official notice boards in the interests of maximum transparency.

According to the Act on Municipalities, associations are legal entities and it is therefore their duty to publish their budgets in the Commercial Register. Even the fact that it is legally their obligations did not force some associations to do so and for some associations there were not traceable budgets, records of economic review, members of the association, etc. Only 4 associations out of the total 43 voluntary associations did not publish any information.

The analysis of income of individual associations was focused on contributions from member municipalities, contributions of the Moravian-Silesian Region, contributions from the EU funds and subsidies of the Czech Republic and other income of associations (such as interest income, real estate sales, etc.) and revenue from services (property rent, public transportation provision, or other services).
Figure 2 expresses the individual types of the above-mentioned incomes for the years 2016 to 2018 in a form of a percentage.

| MEMBERSHIP CONTRIBUTIONS OF MUNICIPALITIES | REVENUE FROM SERVICES | REVENUE FROM FUNDS | EU REVENUE | OTHER REVENUE | REVENUE FROM REGIONAL BUDGETS |
|--------------------------------------------|----------------------|------------------|------------|---------------|-------------------------------|
| 39.50%                                     | 27.54%               | 32.87%           | 37.85%     | 20.47%        | 31.04%                        |
| 2016                                       | 2017                 | 2018             |
| 31.33%                                     | 34.24%               | 31.04%           | 18.81%     | 6.90%         | 5.52%                         |
| 27.54%                                     | 34.24%               | 31.04%           | 18.81%     | 6.90%         | 5.52%                         |
| 32.87%                                     | 34.24%               | 31.04%           | 18.81%     | 6.90%         | 5.52%                         |
| 37.85%                                     | 34.24%               | 31.04%           | 18.81%     | 6.90%         | 5.52%                         |

**Figure 2.** Voluntary association of municipalities revenues in individual years in the Moravian - Silesian Region [authors' own work]

It can be seen from the Figure 2 that the largest share of the income of voluntary associations consists of contributions from member municipalities, income from services and also contributions from EU and Czech funds. On the other hand, the lowest contributions come from the region.

The amount of contributions of member municipality to each voluntary association of municipalities is determined according to the population of each member municipality on the basis of an agreement on the amount of contribution per municipality citizen. The highest incomes from membership fees come to such associations, whose members are either municipalities with a large population or associations with a large number of member municipalities. The highest income from services is provided by associations that provide municipal waste collection, water supply, sewerage and waste water treatment plants for member municipalities. Minor part of income from services consists of renting equipment, common premises, providing advice, etc. In other regions, the situation regarding the income of voluntary associations of municipalities is similar.

4. **Analysis of financing of selected investment projects**

The research focused on different types of investment projects within municipalities. Various financing options were proposed for individual projects, including financing the project through the municipality itself or through a voluntary association of municipalities.

4.1. Project 1

The subject-matter of this project was the Odra - Morava - Danube cycle path construction in the Moravian - Silesian Region. The cycle path was financed by a voluntary association of municipalities of the Poodří Region in cooperation with the Ostrava City Council. Furthermore, the implementation and finishing options were considered. The first option is a variant of the construction of the entire cycle path with financing by a voluntary association, as well as a scenario where the municipality will provide financing only for a part of the cycle path lying on the cadastre of the municipality without making use
of the voluntary association. For both variants, several financing options are proposed using EU and Ostrava grants and co-financing or a loan [10]. Although the municipality would manage the financing using the above-mentioned methods, it is disadvantageous for it not to cooperate with the voluntary association in terms of invested financial volumes. See Figure 3 for more details.

Figure 3. The necessity of own funds for the cycle path implementation [authors’ own work]

4.2. Project 2

Project 2 is focused on the construction of the sewerage system and waste water treatment plants in municipalities. The initial proposal was the implementation of the entire infrastructure in only one municipality, then the municipality agreed on the concurrent construction of the sewerage system with the adjacent municipality, while the wastewater treatment plant would be common for both of them. Both municipalities established a voluntary association of municipalities focused on the construction and operation of the sewerage system and waste water treatment plant. In this option, it would be possible to use a grant from the EU fund and also national subsidies. The construction and operation of the individual sewerage system and waste water treatment plants were proposed directly by each municipality separately.

Municipalities would apply for a subsidy from the Operational Programme Environment. In order to co-finance the obtained OPE subsidy, it would be possible to use the subsidy of the Vysočina Region for the infrastructure of water mains and sewerage systems which would be appropriate for both variants. The basic difference in the variants is an increase in the work price by the VAT. Since municipalities are not VAT payers, they cannot transfer it according to Act No. 235/2004 Coll. Furthermore, there is also a difference in the contribution from the Association of municipalities for water supply and sewerage, which is halved. Figure 4 shows an overall assessment of the needs of own investment funds, it is clear that the variant chosen by the municipalities was the most advantageous and it can be concluded that the municipalities manage their funds well. [11]
4.3. Project 3

Project 3, on which the funding is presented, focuses on equipping the already existing classroom in a primary school in the Pardubice Region municipality with technical equipment and software for teaching topics dealing with environmental principles, nature conservation and environmental topics. The use of the classroom is planned not only for school lessons, but also for afternoon clubs for those interested in ecology and environment. There is also a concept of barrier-free access to the second floor where the classroom will be located.

In the first variant financing of municipalities is considered separately, then in the second variant financing by voluntary association of municipalities is considered. As a variant of financing it was proposed for the implementation by the municipality itself - either financing the whole amount by the municipalities or using the loan from the bank. According to the fact that the cost of implementing the investment for the municipality is about CZK 780,000, it is not possible to use the EU subsidy for which a minimum amount of CZK 1,000,000 is required. CZK. Therefore, in the second variant, joining with another municipality, which considers a similar investment, in a voluntary association, was considered. In this variant, the cost would reach approx. CZK 5,200,000. Then the created voluntary association of municipalities would be eligible for applying for an EU subsidy. In the following Figure 5, a comparison of the cost of the project using all financing methods, by both the municipality itself and the voluntary association of municipalities, is provided. [12]

![Figure 4](image-url)

**Figure 4.** The necessity of own funds for construction and operation of sewerage system and WWTP [authors’ own work]

### Figure 5

|                  | VAM Resources | Resources of the municipality |
|------------------|---------------|-------------------------------|
| 23,196,599 CZK   | 44,077,401 CZK | 32,716,201 CZK               |
| Foundation of VAM + regional subsidies + VaK associations of municipalities |                      |                               |
| Without VAM: EU subsidies + regional subsidies + VaK associations of municipalities |                      |                               |

![Figure 5](image-url)

**Figure 5.** The necessity of own funds for the realization of the classroom [authors’ own work]
5. Results and discussions
Possibilities of financing selected projects by municipality itself or by a newly created voluntary association of municipalities were shown in the previous chapters. In all cases, it was found out that joining into municipality associations bring them, among other things, a reduction in their own funds necessary for investment. Although these projects were implemented in different regions, the basic conditions for joining into associations and financing of municipalities are the same, the only difference is in the support from the individual regions.

6. Conclusions
Cooperation is very important for every human activity. It makes it possible to achieve results that independent entities would hardly achieve. Therefore, the inter-municipal cooperation is so important. Municipalities join together to enhance and improve the performance of local authorities, to have better access to financial resources, to maximize development and to provide better living conditions for their citizens.

Voluntary associations of municipalities have found their fixed place in the system of public administration of the Czech Republic. It can be said that this form of cooperation is used for drawing grants from various sources. In many cases it is an investment subsidy for the construction of technical infrastructure. Association of municipalities is optimal for construction projects, because compared to one municipality; it has a better chance of getting grants for construction investments.

The article analyses the use of voluntary associations of municipalities for the development and financing of investment activities in the municipality. Based on the analysis of the budgets of the individual associations of municipalities, it was found that the associations used contributions from individual members to a lesser extent, however, they financed the investment activity mainly from grant sources.

Based on the findings, it can be concluded that voluntary associations of municipalities represent a very important element for the development of the region. Voluntary associations of municipalities can make available financial resources that the municipality would not reach itself and thus facilitate the financing of development projects.

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