Protecting the Environment Through Public Procurement Law – The Case of Poland

Renata Kozik ¹, Izabela Karasińska-Jaśkowiec ¹

¹ Politechnika Krakowska im. T. Kościuszki ul. Warszawska 24, 31-155 Kraków, Poland

E-mail address: rkozik@izwbit.pk.edu.pl

Abstract. The article presents the results of studies whose aim was to analyse public procurement procedures in the context of environmental protection, especially wastewater infrastructure, performed in the selected Polish municipalities. The selection criterions were the time of public procurement procedure - from 2009 until 2015 and that the contract was co-financed by the European Union funds. The contracting authorities responsible for awarding specific contracts, were asked series of detailed questions about the environmental criteria and requirements contained in the tender documents for the construction contracts related to the wastewater infrastructure. The aim of the detailed study was to determine whether the actions taken by the contracting authorities in a tender procedure for the construction or operation of wastewater infrastructure include environmental issues. Authors examine also the applicable public procurement law regulation in Poland and Europe in the context of sustainable development and environmental protection. The study of public procurement law was to check whether the law regulation fully takes into account the environmental aspects of the planned investments. On this basis, conclusions have been made that laws are consistent and do not constitute an obstacle to awarding a contract positively affecting the environment.

1. Introduction

Public procurement is a legal way to control the spending of public funds by, among others, municipalities as local government authorities. Due to the role of public funds in the economy, the system of public procurement is one of the elements of environmental policy in the European Union (EU), including Poland. In Poland the current legal framework for public procurement gives possibilities for supporting the sustainable development of environment as well as its protection in investment processes (e.g. construction works). The sustainable public procurements should include ecological requirements throughout the supply chain and product life cycle (so called green procurements). Authors undertook an original study which aim was to determine the extent of the green procurements carried out in Polish municipalities. A large research sample have been performed by authors in which constructions of wastewater infrastructure carried out by municipalities have been investigated taking into account the concept of sustainable development. The choice of the research subject was not accidental. Research concerns constructions which, by definition, have a significant impact on the environment. The green public procurement has rarely been described in the literature. The basic concepts were described by Kalumbanga [1] and Walker, et al. [2]. The process and legal basis of
green public procurement in Poland were studied by Kozik [3] and Kozik and Karasińska-Jaśkowec [4].

2. European Union financial support for the wastewater infrastructure

In the period 2009–2015, co-financing the construction of water and sewage infrastructure could be obtained by being a beneficiary of the Operational Programme “Infrastructure and Environment”, sixteen Regional Operational Programmes territorially corresponding to individual provinces and the Rural Development Programme. One of the main priorities of cohesion policy in Poland in 2007-2013 were investments for the overall improvement of the environment amounting to 17.8 billion EUR, which is 27% of overall EU support (European cohesion policy in Poland, 2009, http://ec.europa.eu). The total investment in the period 2001-2014 in Poland amounted to nearly 68.3 billion PLN, and for the construction, expansion and modernization of municipal wastewater infrastructures nearly 14.8 billion PLN was allocated, [5].

In the research the provinces were sorted in relation to the amount of EU fund allocated for sewage infrastructure. From the list the sample that consisted of five provinces were chosen for the analysis. Two provinces from the top and two others from bottom of the list. The fifth province was this one with the medium allocated EU funds.

3. Quantitative studies of proceedings concerning investments related to the construction or reconstruction of sewage infrastructure

In the selected period 113,136 projects were completed, including 3077 in the field of environmental protection, of which 411 projects were defined as the construction or extension of the wastewater infrastructure. In total, the present study involved 70 wastewater infrastructures (of total number 411, which is about 17%), from 70 municipalities and 172 related tender procedures, for a total amount of 1,244,242,504.75 PLN. The study involved wastewater infrastructures, whose construction or extension took place in the period from 2009 to 2015 and were co-financed by the EU. From the 172 procedures, 88 concern the execution of works, and 19 concern design and execution of works.

Contracting Authority in the majority (96.5%) declared that awarding the contract did not take into account issues related to sustainable development, i.e., it did not use the so-called green procurement (Fig. 1). At the design stage for the execution of works in 35.2% cases, the contracting authority declared that the projects were consulted with a specialist in environmental protection, and the remaining 64% did not. In the case of proceedings, the subject of which was the design and execution of works, the situation is similar, 36.8% of projects were consulted with a specialist in environmental protection, and in 57.9% a specialist was not involved (Fig. 2).

![Figure 1](image1.png)  ![Figure 2](image2.png)

**Figure 1.** Taking into account the issues related to sustainable development

**Figure 2.** Consulting design with a specialist in environmental protection
On the question whether contractors were required to submit an environmental management plan (EMP) for the construction of infrastructure and sewage management, with special emphasis on reducing the environmental impact. 87.5% answers were negative for execution of works and 73.6% negative answers for design and execution of works (Figure 3). Another question concerned the implementation of appropriate measures to protect the environment during the construction. In this case there were only 30% positive answers in case of execution of works and 52.63% positive answers in the design and execution of works contracts, see Figure 4.

Contracting authority in most cases (63.6% of execution of works and 57.9% of the design and execution of works) did not require a declaration that during the construction, materials/substances harmful to the environment, e.g. products containing sulphur hexafluoride (SF6) would not be used (Figure 5). On the question of whether the contractor has experience in the construction of sewage infrastructure, with particular emphasis on reducing the environmental impact of contracting 60.2% respondents answered negatively (execution of works). Only in 6.8% of cases such an experience was required. In design and execution of works contracts, the number of positive and negative responses was equal and amounted to 31.6% (Figure 6). The results are similar with the experience of designers.

Another group of questions concerns requirements for the specific parameters for this type of constructions. The answers are presented in the Figures 7-10. Contracting entities were also asked whether in the process of tender evaluation contractors could award additional points for offering better characteristics than those required in the tender documents. About 95% of contracting entities did not
grant any extra points. The detailed questions were concerned whether the tender procedure imposed requirements regarding the following parameters: energy consumption and energy efficiency of the plant (equipment) – 11 questions (Figure 7); efficiency requirements for sewage treatment – 16 questions (Figure 8); special requirements related to water consumption – 15 questions (Figure 9); requirements related to flue gas treatment – 4 questions (Figure 10). As seen in Figures 7-10, in most cases, the contracting entity did not specify ecological requirements for the analysed parameters.

Figure 7. Energy consumption and energy efficiency of the plant

Figure 8. Efficiency requirements for sewage system

Figure 9. Requirements concerning water consumption

Figure 10. Requirements concerning flue gas treatment

4. Legal provisions and sustainable development
One of the most important legal documents in the field of water management is Council Directive of 21 May 1991 concerning urban waste water treatment and adopted on 23 October 2000 (Directive 2000/60/EC). In 2003, in Poland the Ministry of Environment in Poland in cooperation with municipalities adopted a long-term program for Municipal Wastewater Treatment. Amendments were made to the Water law of 18 July 2001 (Journal of Laws No 115, item 1229, with subsequent amendments.), Environmental law of 27 April 2001 (Journal of Laws No 62, item 627, with subsequent amendments) and Act on collective water supply and discharge of wastewater of 7 June 2001 (Journal of Laws No 72 2001, item 747, amendments - Journal of Laws No. of 2015 item 139).

In the analysed period, the Public Procurement Law (Act of 29 January 2004, Journal of Laws No 19, item 177, with subsequent amendments) stayed in accordance with the following: the so-called Classic Directive (2004/18/WE) concerning the coordination of the procedures of granting public contracts for construction works, deliveries and services; the so-called Utilities Directive (2004/17/WE) that coordinates the procurement procedures of entities operating in the water, energy, transport and postal services sectors; the so-called Remedies Directives (2007/66/WE, 89/665/EWG, 92/13/EWG);
and the so-called Defence Procurement Directive 2009/81/WE that coordinates contracting procedures for construction works, deliveries and services by institutions and entities ordering in the defence and security sectors, changing the 2004/17/WE and 2004/18/WE Directives. The Directives allow to include environmental issues in the subsequent stages of the public procurement procedure, such as: at the description of the object of contract stage (Art. 23 Dir. 2004/18/WE); at the contractor selection stage (Art. 45, 48 and 50 Dir. 2004/18/WE); at the stage of optimum tender selection through the environmental evaluation criteria (Art. 53 Dir. 2004/18/WE); at the stage of determining terms and conditions (Art. 26 Dir. 2004/18/WE), see Kozik [3] and Kozik and Karasińska-Jaśkowec [4].

The PPL provisions allow to exclude the contractors (Art. 24 paragraph 1 point 3-8) who have committed a crime against the environment. In order to prove that a bid fulfils the orderer’s requirements, the contracting entity may demand, for instance (Art. 25 paragraph 2 PPL), a certificate issued by an independent entity dealing with certifying the compliance of the contractor’s activities with European standards of environmental management if the contracting entity indicate environment management measures which the contractor is to use while executing the construction works or services contract, referring to the environmental management system and audit (EMAS) or environmental management standards based on European or international standards certified by bodies operating under the laws of the European Union, European or international standards concerning certification. The contractor may also submit equivalent certificates issued by entities established in another Member State of the European Economic Area or other documents confirming the use by the contractor of equivalent quality assurance measures and equivalent environmental management measures. The contracting entity may also withdraw an accurate description of the contract by indicating the functional requirements. These requirements may include the description of the impact on the environment (Art. 30 paragraph 6). In the tender evaluation process, the current legal regulation allows to use other than price criteria that take into account environmental aspects (Art. 91 paragraph 2).

5. Conclusion

The analysis of the "green" public procurement shows that there is still some untapped potential in the field of environmental protection in Poland. As illustrated by the research, even such ecological and environmentally friendly investments such as sewage treatment infrastructure, do not constitute investment where environmental, ecological, economic aspects are sufficiently taken into account. Environmental clauses continue to be used by public institutions in Poland marginaly. The scale of their consideration in relation to the existing possibilities is far too small. Municipal authorities are responsible for a range of municipal services for living in the community. Such elements of public utilities include water and sewage management. Public bodies, including local government authorities that generate the greatest number of procedures as well as financial resources, do not display in this aspect the adequate care for the environment.

References
[1] Kalubanga M, 2012. Sustainable procurement. Concept and Practical Implications for the Procurement Process, *International Journal of Economics and Management Science*, 2012;01:01-07
[2] Walker H, Niemczyk J, Johnsen T, Spencer R. Sustainable procurement: Past, present and future, *Journal of Purchasing and Supply Management*, 2012;18 (4):201–206
[3] Kozik R, 2014. Green Public Procurement criteria for construction contracts. *Technical Transactions. Civil Engineering*, 2014;80:73- 80
[4] Kozik R, Karasińska–Jaśkowec I. Green public procurement – legal base and instruments supporting sustainable development in the construction industry in Poland, *International Conference On the Sustainable Energy and Environment Development* (SEED’2016) AGH UST Krakow, May 17th-19th, 2016. books of abstract: 165
[5] http://www.igwp.org.pl/, online 05/2016