



The state policy on the protection of soil resources in Bulgarian agriculture and agricultural territories - theoretical-practical aspects and problems

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Abstract. *According to the norm of Article 4 of the Law on Soils, the state policy on conservation, sustainable use and restoration of soils on national level is carried out by the Minister of Environment and Water, the Minister of Agriculture and Food, the Minister of Health and the Minister of Regional Development and public works. Other interested ministers and heads of departments participate in the implementation of the state policy on soil resource protection according to their competences. On regional level, the policy on conservation, sustainable use and restoration of soils is carried out by the regional governors, and on local level - by the mayors of municipalities.*

The report examines basic legal aspects in the regulation of the state policy on the protection of soil resources in agricultural territories and some problems of practical nature.

Keywords: soil resource, state policy, agricultural territories, conservation, ministries

Introduction

In the text of Article 2, paragraph 1, paragraph 2 and paragraph 5 of the Law on the Protection of Agricultural Lands (www.lex.bg), agricultural lands are qualified as the main national wealth, which is used only for agricultural purposes.

The purpose of agricultural land is for the production of plant produce and livestock grazing in a manner that does not harm soil fertility and health.

The protection from damage, restoration and improvement of the fertility of agricultural lands also applies to agricultural lands included in the construction boundaries of settlements, as well as to forest territories that are used for the production of plant products for livestock grazing (www.lex

.bg).

The fertility of agricultural lands is subordinated to the fertility of soils and soil resources. According to point 10, paragraph 1, of the additional provisions of the Law on Soils, „fertility of soils“ is the ability of soils to create conditions for plant development. Soil functions are disturbed by the accumulation of harmful substances or an anthropogenic source, which factors cause „soil pollution“ (item 5, paragraph 1 of the additional provisions of the Law on Soils) (www.lex.bg).

„Anthropogenic factors“ are factors that can cause soil damage as a result of human activity (item 1, paragraph 1, additional provisions of the Law on Soils).

The norms for permissible content of harmful substances in soils are determined according to the regulation of Article 2 of Ordinance No. 3 (2008)

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on the norms for permissible content of harmful substances in soils (www.lex.bg), based on the risk to the environment and human health on three levels: precautionary concentrations, maximum permissible concentrations and intervention concentrations.

In this regard, unfavorable changes occur in the structure and physico-chemical properties of soils, leading to disruption of their basic functions (item 17, paragraph 1 of the additional provisions of the Law on Soils), and as stated in item 20, paragraph 1 from the additional provisions of the Soils Act, “functions of soils” is their ability to perform ecological, economic, social and cultural functions.

The protection of the soil cover, respectively of the soil resource, is directly related to the preservation and maintenance of soil fertility in agricultural lands.

Therefore, it is also an important structural element of the state’s policy regarding the agrarian sector, respectively the policy of the Ministry of Agriculture and Food.

For example, according to the text of Article 4, paragraph 1 of the Law on the Protection of Agricultural Lands (www.lex.bg), the Ministry of Agriculture and Food provides the owners and users of agricultural lands with official information on the protection of the soil cover and its ecological functions from impairment.

The object of research in the article is the normative framework that encompasses and determines legal norms dealing with the matter of soil resource conservation in Bulgarian agriculture and the state policy on the conservation of soil resources in agricultural territories, which normative framework includes: the Law on Soils, the Law on Conservation of agricultural lands and Ordinance No. 3 (2008). on the standards for permissible content of harmful substances in soils, which normative documents are borrowed from the legal portals www.mzh.government.bg and www.lex.bg.

The article examines some aspects of the state policy on soil resource protection in the agricultural territories of the Republic of Bulgaria and the functions of the state bodies that implement this policy.

For the purposes of the study, summarized results of the author’s empirical research on the topic “Protection of the soil resource in the context of the state policy conducted by the Ministry of Agriculture and Food” are presented.

Material and methods

For the purposes of the study, the following were used:

- Literary sources of Bulgarian authors;
- Normative sources (accents from the current legislation);
- Analytical toolkit (normative and analytical methodological apparatus) and survey based on the author’s empirical research indicated above.

Results and discussion

A normatively regulated obligation in the text of Article 3 of the Law on the Protection of Agricultural Lands (www.lex.bg) of the owners and users of agricultural lands is to protect them from erosion, pollution, salinization, acidification, swamping and other damage, and to maintain and increase their productive qualities.

The protection of the soil resource, as the main component of agricultural lands, is also a state policy with specific parameters and directions, as well as the state policy on the protection of agricultural lands and the state environmental policy. Some authors associate ecological management with achieving sustainability in any organization, but they derive ecological management as a result of management policy and other factors (Aleksieva, 2019).

A similar theory is developed by other authors, who connect the successful implementation of the policy of the European Union, in the conditions of the integration of the environmental policy in the other sectoral policies (Yordanova, 2019).

According to the norm of Article 1, Paragraph 2 of the Law on Soils, soils are national treasure, a limited and practically irreplaceable natural resource, and their protection is a priority and duty

of state and municipal bodies and of individuals and legal entities (www.lex.bg).

The principles on which the protection, use and restoration of soils are based, regulated in the text of Article 3 of the Law on Soils, are:

- a/ eco system and integrated approach;
- b/ sustainable use of soils;
- c/ priority of preventive control;
- d/ implementation of good practices in the use of soils and so on.

The main executors of the state policy on soil resource protection are the Minister of Environment and Water and the Minister of Agriculture and Food. The Minister of Environment and Water exercises the following functions, regulated in the norm of Article 5, paragraph 1 of the Law on Soils, namely:

- a/ develops a National Program for the protection, sustainable use and restoration of soils;
- b/ ensures public participation in decision-making in relation to the protection, sustainable use and restoration of soils;
- c/ manages soil monitoring;
- d/ prepares an annual report on the condition of the soils and so on.

The Minister of Agriculture and Food, through also normatively regulated functions in Article 6 of the Law on Soils, implements the state policy related to the soil resource, namely:

- a/ organizes activities for the protection, sustainable use and restoration of agricultural lands;

b/ develops and keeps up-to-date the information system for soil resources;

c/ carries out control;

d/ provides information to the Minister of Environment and Water within the scope of his competence;

e/ participates in the development of the National Program for the protection, sustainable use and restoration of soils.

Other bodies implementing the state policy regarding the soil resource are the Minister of Regional Development and Public Works, the Minister of Health, the Regional Governors and the Mayors.

For the purposes of the research, as already indicated, an author's empirical research was conducted through a survey on the topic "Protection of the soil resource in the context of the state policy carried out by the Ministry of Agriculture and Food". The survey was carried out among 102 people - agricultural producers from the South-West planning region of the Republic of Bulgaria.

Methodologically, the survey was carried out in the field using the "face-to-face" method, with the anonymity of the respondents preserved.

The summary results of the survey are presented below in the presentation.

The survey covers two sections, namely:

Section I: Profile of the respondent

1. Surveyed farmers from the South-West planning region - 102 people - 100%

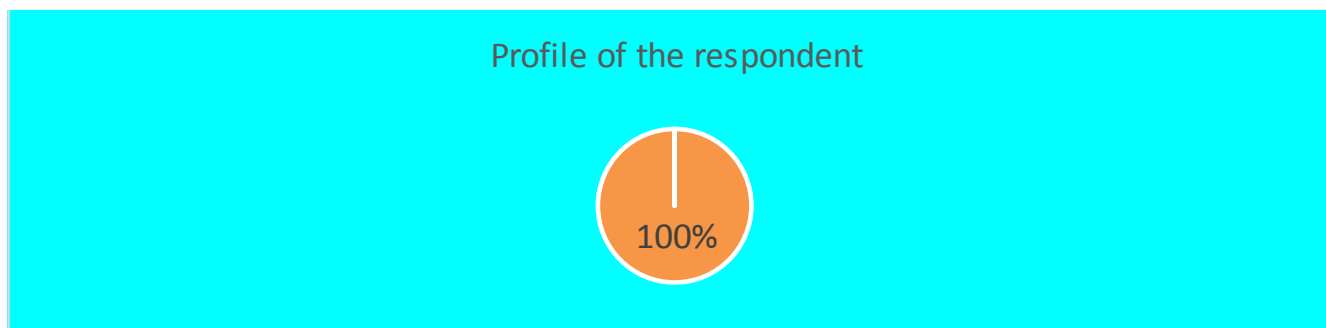


Figure1. Surveyed farmers from the South-West planning region

2. Gender structure:

a/ men – 61 people or 59.80%

b/ women – 41 people or 40.20%

Gender structure

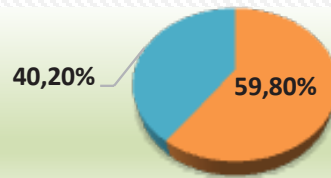


Figure 2. Gender structure

3. Age structure:

a/ up to 30 years old - 21 people or 20.59%;

b/ up to 40 years old - 38 people or 37.25%;

c/ up to 50 years old – 25 people or 24.51%;

d/ over 50 years old – 18 people or 17.65%

Age structure

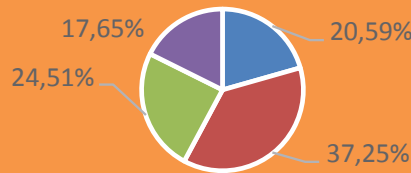


Figure 3. Age structure

4. Cultivates agricultural land as:

a/ owner – 64 people or 62.75%;

b/ user – 38 people or 37.25%

Cultivates agricultural land as

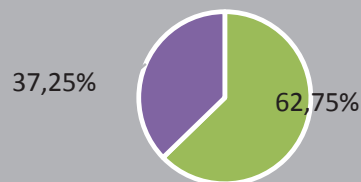


Figure 4. Cultivates agricultural land as

Section II: Specialized questions

1. Question: As an owner/user of agricultural land, are you satisfied with the information provided

by the Ministry of Agriculture and Food related to the soil (land) resource:

a/ yes – 83 people or 81.37%;

b/ no - 19 people or 18.63%.

As an owner/user of agricultural land, are you satisfied with the information provided by the Ministry of Agriculture and Food related to the soil (land) resource

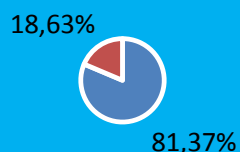


Figure 5. As an owner/user of agricultural land, are you satisfied with the information provided by the Ministry of Agriculture and Food related to the soil (land) resource

2. Question: The information satisfies you because it is:

a/ detailed, current and advisory - 41 people or 49.40%;

b/ because I apply it in agricultural activity - 42 people or 50.60%.

The information satisfies you because it is



Figure 6. The information satisfies you because it is

3. Question: The information does not satisfy you because:

a/ I don't always have access to it - 12 people

b/ I don't always find a consultant to read the information - 7 people or 36.84%

The information does not satisfy you because

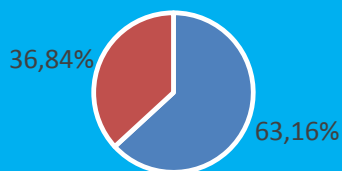


Figure7. The information does not satisfy you because

4. Question: In your agricultural practice, do you use data from the information system of agricultural soil resources:

a/ yes - 78 people or 76.47%;

b/ sometimes - 24 people or 23.53%

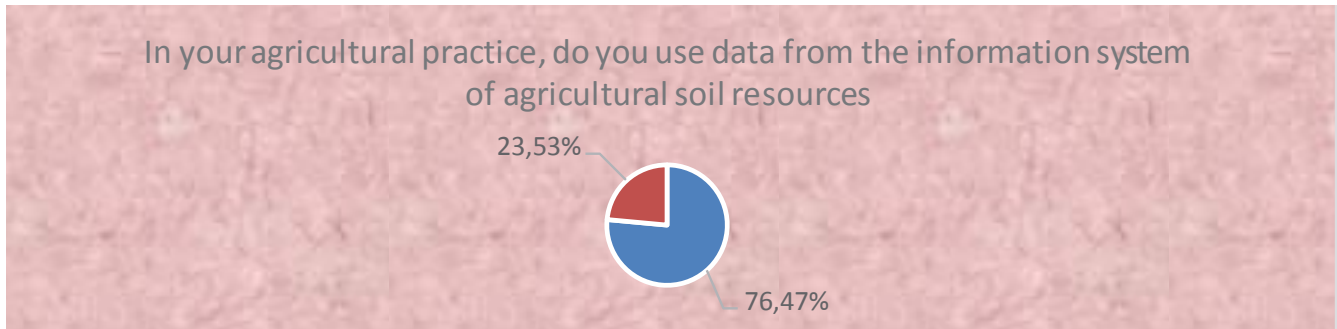


Figure 8. In your agricultural practice, do you use data from the information system of agricultural soil resources

5. Question: Have you been subject to mandatory restrictions on the agricultural land you use: a/ yes -36 people or 35.29%; b/ no - 66 people or 64.71%.

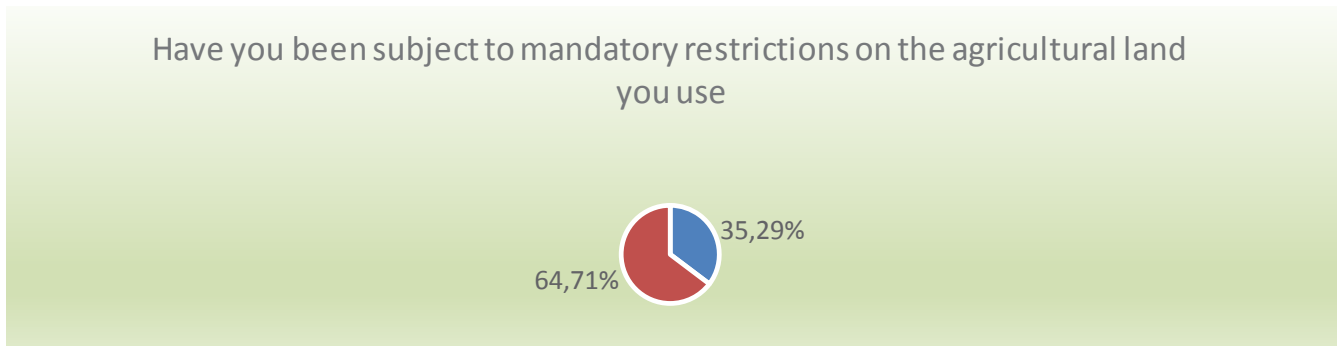


Figure 9. Have you been subject to mandatory restrictions on the agricultural land you use

6. Question: If your answer to the previous question is „yes“, the reasons for this were (more than one answer is possible):
 a/ damage to agricultural land - 31 people or 86.11%;
 b/ violated hygiene norms - 22 people or 61.11%;
 c/ degraded ecological functions of the soil cover - 30 people or 83.33%;
 d/ others - 21 people or 58.33%

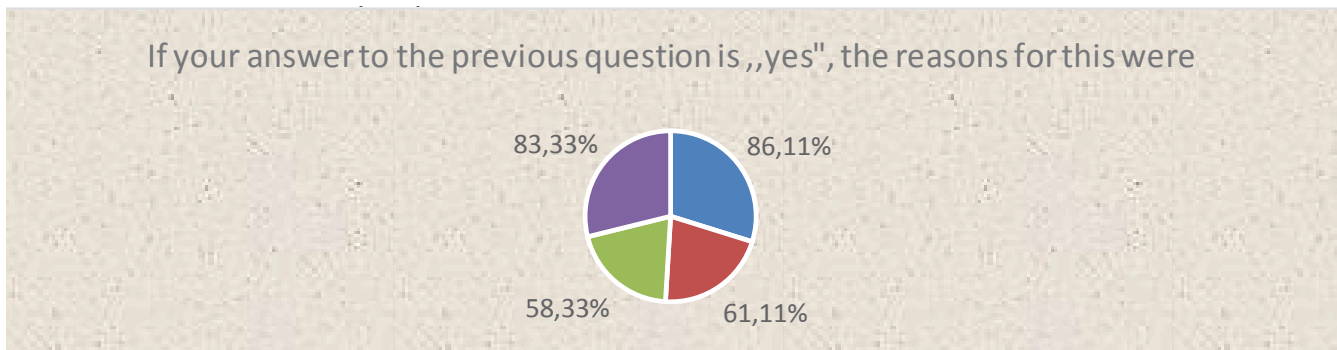


Figure 10. If your answer to the previous question is „yes“, the reasons for this were

7. Question: Do you approve of these restrictions in terms of their benefits: a/ approve – 43 people or 42.16%; b/ do not approve - 59 people or 57.84%

Do you approve of these restrictions in terms of their benefits

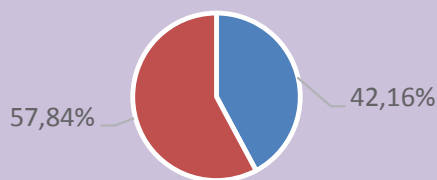


Figure 11. Do you approve of these restrictions in terms of their benefits

Conclusion

The summary results from the second section of the survey, shown in the presentation, give grounds for forming the following conclusions:

1. Most of the respondents - 83 people or 81.37% expressed satisfaction with the information they receive from the Ministry of Agriculture and Food about the soil resource in the country;

2. This satisfaction is related to the assessment of such qualities of information as detail, relevance and consultability - 41 people or 49.40%, but most of all, with the applicability of this information in the practice of agricultural producers - 42 people or 50.60 %.

In this regard, 78 people or 76.47% indicated that they use data from the information system of agricultural soil resources;

3. Dissatisfaction is expressed by 19 people from the surveyed farmers or 19 people or 18.63%, which dissatisfaction they associate with lack of access to information - 12 people or 63.16% and a problem with finding a competent person - a consultant to interpret and analyze the information received from the Ministry of Agriculture and Food - 7 people or 36.84%;

4. In the cases of imposed mandatory restrictions on the use of agricultural land by 36 people or 35.29%, the reasons for these restrictions, if more than one answer is possible, are: damage to the agricultural land - 31 people or 86.11%; degraded ecological functions of the soil cover - 30 people or 83.33%, violated hygiene standards - 22 people or 61.11% and others;

5. A positive point is that for the majority of

surveyed farmers - 66 people or 64.71%, no mandatory restrictions were imposed on the use of the agricultural lands they cultivate;

6. Restrictions on the use of agricultural land due to the reasons stated above, as a function and element of state policy, are not met with approval by 59 people or 57.84%, who apparently believe that there is no particular benefit from these restrictions, but 43 people or 42.16% approve the restrictions on the use of agricultural lands, which is also related to their protection, respectively the protection of the soil resource.

The presented results of the survey and the current regulations related to the state policy on the protection of the soil resource in the Republic of Bulgaria confirm the conclusion that this policy, from the point of view of the functions of the state bodies authorized in the relevant laws, is extremely important for the protection of soil resource and soil fertility as the main component of agricultural lands.

In this regard, it is not by chance that some authors indicate as negative statistics the fact that Bulgaria is one of the eight member states of the European Union in which, for the period 2010-2018. there is an increase of over 30% in emissions of chemical fertilizers and manure (Nenova, 2022) - a fact that poses challenges to the state policy on soil resource protection.

In this sense, the state policy on the protection of the soil resource can also be qualified as an environmental policy in the agricultural sector. Therefore, in relation to the protection of the soil resource, a complex approach must be taken in order to preserve it in the best way for agriculture.

The role of environmental assessments and

environmental impact assessments should not be underestimated when carrying out development measures on agricultural land (Velkovska, 2019), and effective waste management should also be carried out, which accumulate on agricultural lands during these and other similar events.

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