



Project 2007CB16IPO008-2013-3-008 «Joint promotion of agriculture waste composting - AGROCOMP», co-funded by Bulgaria-Turkey IPA Cross-border Programme

CCI № 2007CB16IPO008

Contract: 2007CB16IPO008-2013-3-008-3

”Providing consultancies for studies, assessments, analysis, design” – phase 6

**FINAL ASSESSMENT OF THE COMPOSTING IMPACT
ON THE POLLUTION LEVEL IN POMORIE MUNICIPALITY**



Contracting authority: “Europe and We” Association, town Pomorie

Contractor: Bulgarian-Austrian Consulting Company JSC.



The present project is implemented by “Europe and We” Association, Bulgaria with the partnership of Pinarhisar Chamber of Agriculture and is co-funded by the EU through Bulgaria-Turkey Cross-border Programme 2007 – 2013 CCI number 2007CB16IPO008





INTRODUCTION

The present assessment is implemented in the framework of study under project "Joint promotion of agriculture waste composting", funded by the European Union through the Bulgaria - Turkey IPA CB Programme CCI number 2007CB16IPO008. The study aims to assess the effectiveness of the composting process, the benefits of composting at level of local pollution, expected long-term impact on nature and the environment. In particular, this activity will contribute to the overall assessment of the effectiveness and success of the project "Joint promotion of agriculture waste composting".

"Europe and We" Association is a leading partner in the project, implemented in cooperation with the Turkish partner Panarhisar Chamber of Agriculture, town Pinarhisar, Kirklareli province.

The study, which is the base of this assessment, was conducted by the consulting team of Bulgarian-Austrian Consulting Company Jsc. Hired by "Europe and We" Association. Parallel study is conducted in the Turkish target region (Pinarhisar Municipality, Kirklareli province) by the project partner. As a result of the parallel studies in both target regions of the project a cross-border report on the composting effect on the pollution level in Pomorie and Pinarhisar Municipality will be developed, which will support the overall assessment of the effect from the project implementation.



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PROJECT OBJECTIVES

The overall objective of project "Joint promotion of agriculture waste composting" is to improve the quality of life in the cross-border region through effective use and protection of common natural resources. The project promotes composting as a tool to fight waste volumes and the impact of climate change in the cross-border region.

The specific project objectives are:

- Reducing the negative impact of agriculture on the environment by promoting agriculture waste composting;
- Reducing the impact of climate change on the environment through the development of a joint action plan for agriculture waste management and development of environmentally friendly behavior in the cross-border region.

METHODOLOGY

The consulting team of Bulgarian-Austrian Consulting Company Jsc. Was engaged in the implementation of the assessment. The company proposed a methodology for the activity implementation, developed the questionnaire form, performed a study on-the-spot and prepared a summary, analysis and assessment of the study results.

The aim of the study is to assess the efficiency of the composting process, the impact of composting on the level of pollution in the target region, the expected long term effect on nature and the environment. In Pomorie Municipality agriculture has a significant role in the local economy. As a result, there are many waste from agricultural activities. Composting of biodegradable agriculture waste is a proper and responsible decision on waste management, but still the information about the benefits of composting is not enough. Within the project, a number of activities are implemented in order to raise awareness among farmers about the benefits of composting and encourage environmentally friendly behavior to agricultural waste generated.

The implementation of this contract began with a study and identification of farmers in Pomorie Municipality, generating large amounts of waste, assessment of their awareness and motivation to compost biodegradable waste. A methodology was developed for assessment and selection of farms within the two target municipalities - Pomorie and Pinarhisar, where to install demonstration composting platforms. On the basis of the methodology were evaluated and selected 12 (10 + 2 spare) farms - 6 in each region, as in





10 that have received the highest scores, demonstration composting platforms were installed. The selected farmers went through specialized training, during which to learn about the basic principles of composting and work with demonstration platforms. In the two target regions Monitoring groups were created to monitor the composting process in the municipality. This assessment is based on reports from the observations and discussions of the Monitoring groups.

This report aims to assess the effect of composting on the environment through questionnaire to the target groups and analysis of the work of the Monitoring Group in Pomorie. In particular, the study will contribute to the overall general assessment of the effectiveness of the project implementation and the success achieved.

Territorial scope: Pomorie Municipality, Burgas District, Republic of Bulgaria

Period of implementation: November-December 2014.

Target groups: farmers in whose farms demonstration composting platforms are installed, farmers, members of the Monitoring Group, formed under the project, representatives of local and regional authorities, RIEW, NGOs, businesses representatives, public.

Methodology for activity implementation:

- Development of "outgoing" questionnaire to assess the effect of composting;
- Discussion and approval of the questionnaire by the Contracting Authority and its partners;
- Establishing contacts with respondents that filled in the questionnaire;
- Summary, processing and analysis of data collected;
- Review, summary, analysis and assessment of the work of the Monitoring Group of the Bulgarian target region (field work and monitoring the composting process and working meetings of the Monitoring Group to discuss the progress in composting);
- Development of the final assessment of composting effect on the pollution level in Pomorie. Municipality.

Data collection method: descriptive. The study is based on obtaining primary data through the questionnaires – the respondents read the questions and write the answers.

Total number of questionnaire forms completed: 42.

Team on-the-spot: 2 interviewers.



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Summary, analysis, assessment, report: 1 expert.

I PART: QUESTIONNAIRE STUDY

QUESTIONNAIRE STRUCTURE

The questionnaire contains questions related to the assessment of awareness about biodegradable waste composting and the efficiency of the composting process. The questions are divided into two sections: (1) Comprises 9 general and guiding questions for expressing opinion and effectiveness assessment; (2) Contains 4 questions to provide general information about the recipient. The questionnaires are anonymous.

RESULTS ANALYSIS

1. Did you participate in any project activities?

Almost half of the respondents - 45% participated in the info days under the project, 36% took part in the seminar, 26% in the Round Table. 12% said they had received a demonstration composting platform and other 7% - that they participated in other events and / or project activities. 10% of the respondents did not participate in project activities. The results analysis shows that percentage of participants in info days is biggest. All farmers that received composting vessels, and those involved in the main project events were involved in completing the questionnaire and gave their assessment of the composting effects in individual aspect, as well as an overall assessment of the effect on the pollution level of the environment in the region. The study also included respondents who were not involved in any of the project events, so we consider that their opinion is independent and objective /Fig. 1/.



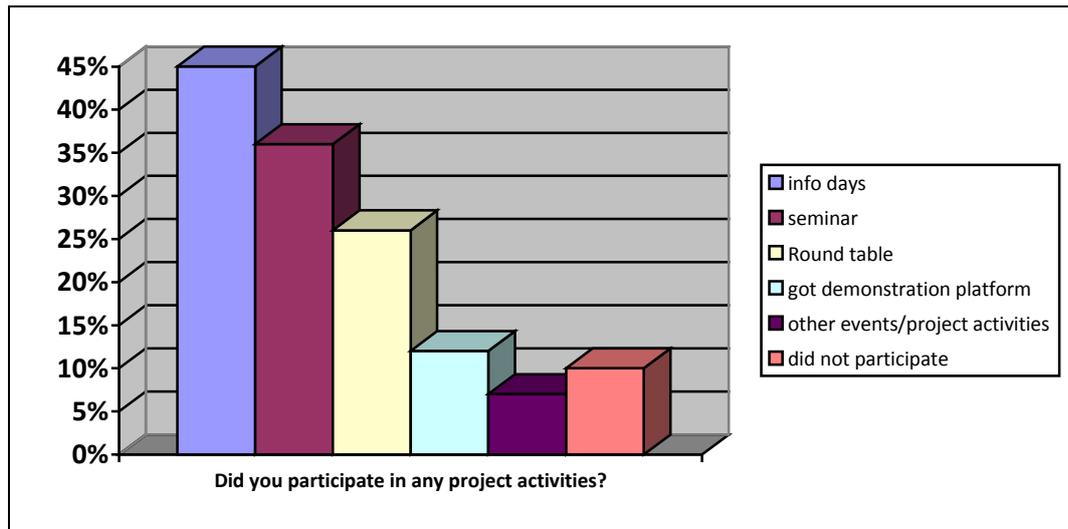


Fig. 1

Conclusions:

1. The majority of the respondents participated in the events / activities implemented under the project "Joint promotion of agriculture waste composting."

2. Do you think the information presented about composting and its benefits was presented comprehensive and accessible in the project framework?

37 of the respondents - 88% responded that the information on composting and its benefits was comprehensive and accessible, 7% said that the information was understandable but insufficient, and 5% (2 people) can not decide. No respondents think that the information was not comprehensive or accessible. The analysis of the responses indicates an overall positive assessment and satisfaction with the quality and quantity of information presented /Fig. 2/.

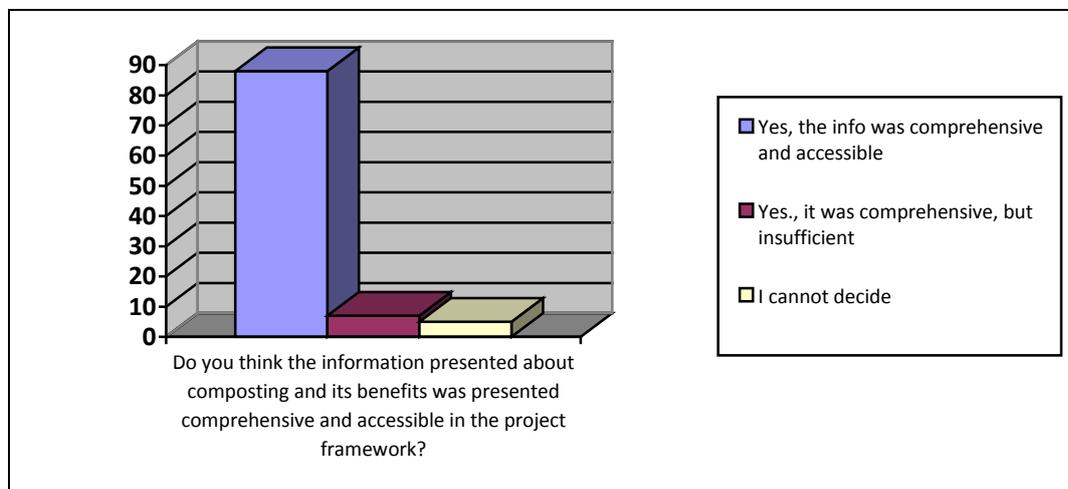


Fig. 2

Conclusions:

1. The majority of the respondents expressed their satisfaction with the quality and quantity of the information presented about composting and its benefits

3. In your opinion, does the amount of waste disposed decrease after realizing the agricultural activities under the project?

Over 2/3 of the respondents - 69% consider that the amount of agriculture waste disposed has decreased (36%) or influenced (33%) after the implementation of project activities. 14% think that there is no decrease in the quantities of agriculture waste disposed and 17% cannot decide. It is noteworthy the high percentage of respondents expressing a positive assessment on the subject. Considering that over 83% of the respondents are farmers and based on the analysis of the responses to this question, it is logical to conclude that after the project the amount of agriculture waste disposed has decreased /Fig. 3/.

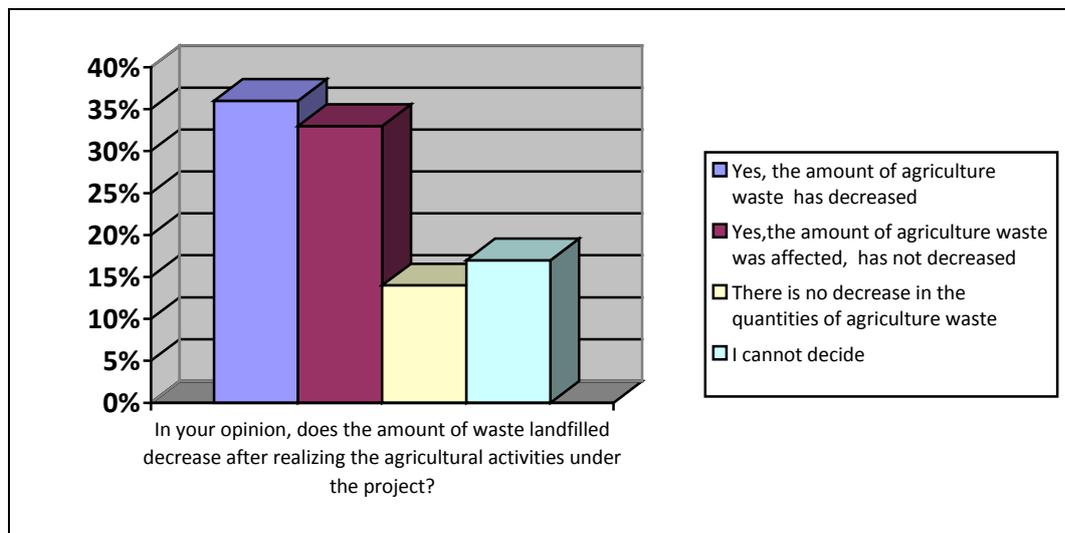


Fig. 3

Conclusions:

1. Over 2/3 of the respondents think that the amount of agriculture waste disposed decreased or was impacted after the project implementation.

4. In your opinion, does the amount of waste disposed decrease due to their composting?

Although this question is directed only to farmers that received demonstration composting platforms within the project, the respondents are more than 5 (9 people total), probably due to lack of understanding and/or the fact that some respondents share their experience from composting. The answers to the question show the following results: 67% of the respondents believe that as a result of composting the quantities of agriculture waste has decreased significantly, 1 respondent thinks that waste quantities are affected, but insignificantly and 2 other people cannot decide. Assuming that all the respondents that answered to this question compost their biodegradable waste, the high percentage of positive responses is indicative. It clearly confirms the benefits of biodegradable waste composting - both for the agriculture and personal farms and the environment as a whole - through composting the level of pollution is decreased and it is contributing to a cleaner and protected natural environment /Fig. 4/.

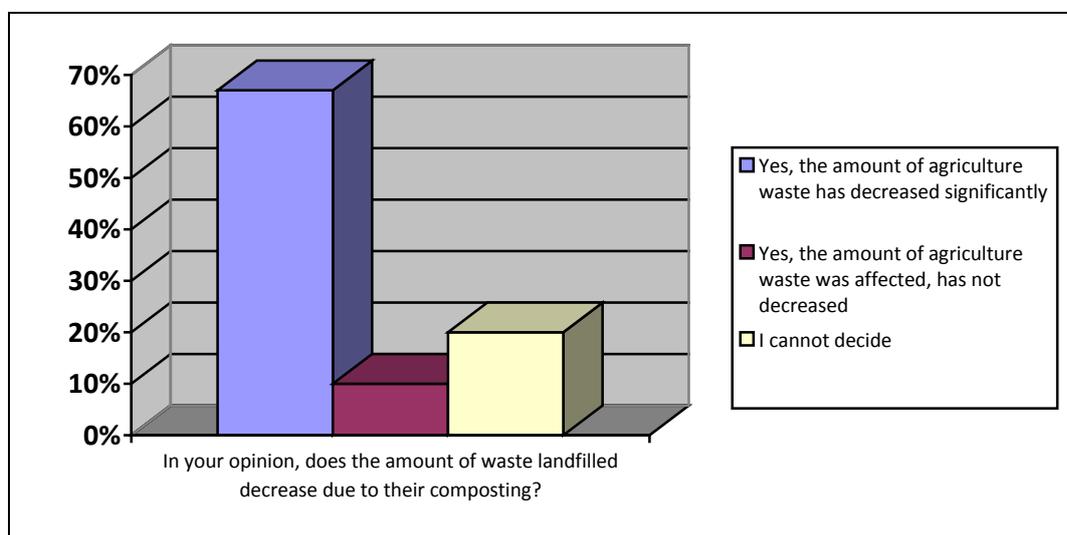


Fig. 4

Conclusions:

- 2/3 of the respondents think that the amount of agriculture waste disposed decreased due to composting which is a very high percentage supporting biodegradable waste composting.

5. How do you think the implementation of information and demonstration activities within project "Joint promotion of agriculture waste composting" influenced the waste disposed in your municipality?

The positive answers to this question exceed 100%, as most of the respondents gave more than one answer. Half of the respondents (50%) said that the implementation of project "Joint



promotion of agriculture waste composting" had positive impact on the level of waste in the municipality, because people are informed and this led to a change in their attitude to waste. Other 24% think that people began to compost due to the project, which contributes to reducing the amount of disposed waste. 29% believe that in this way people are motivated to treat their waste in an environmentally friendly way. 7% of the respondents think that the implementation of information and demonstration project activities had an insignificant effect on municipal waste as people, even though informed, will not start to treat their waste in an environmentally friendly way if they are not motivated. Only one of the respondents expressed a negative opinion, considering that the project did not affect in any way the behavior of people, yet one cannot decide. The responses analysis shows the support for composting as a way to deal with biodegradable waste and the trust that respondents have to environmentally friendly organic waste treatment. Almost all respondents think that the project "Joint promotion of agriculture waste composting" had a significant effect on the level of waste disposed in Pomorie Municipality. /Fig. 5.

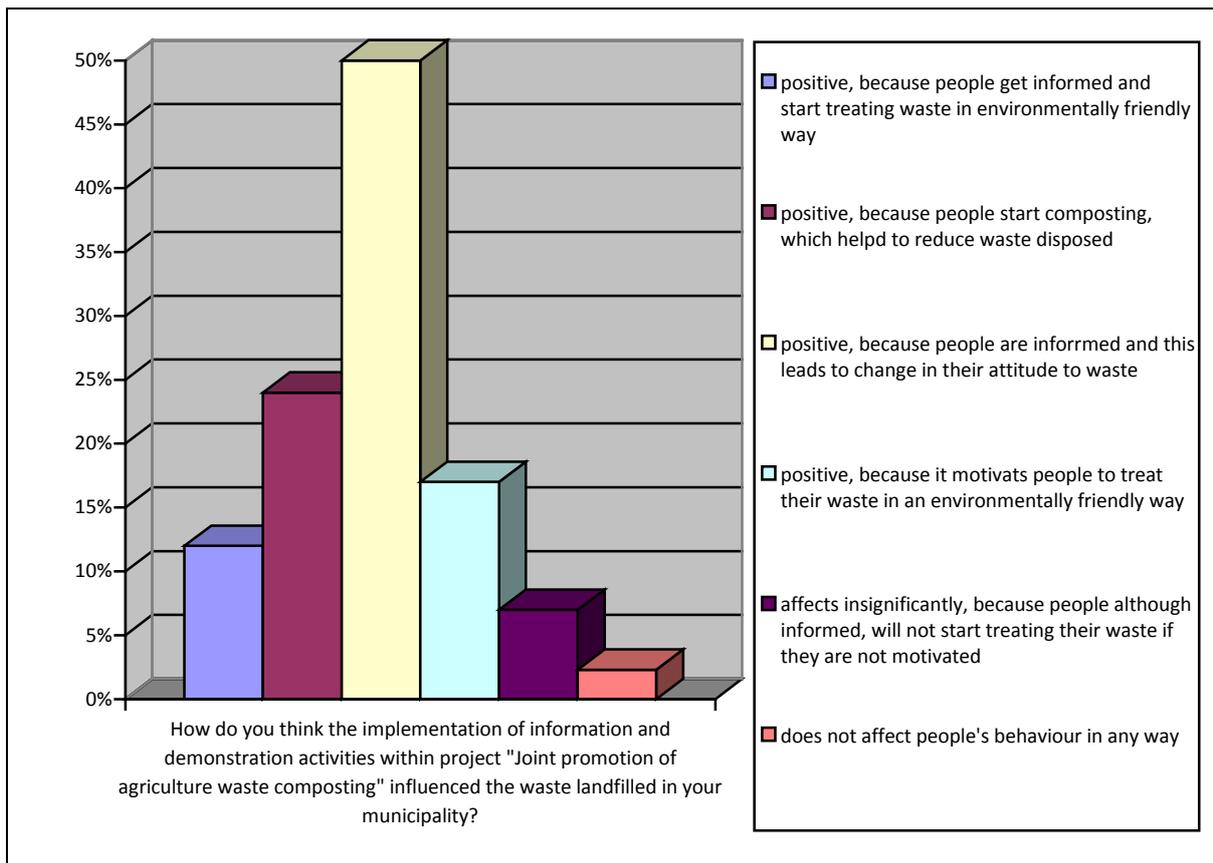


Fig. 5

Conclusions:



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1. Almost all respondents are think that the project "Joint promotion of agriculture waste composting" had a significant effect on the level of waste disposed in Pomorie Municipality.
2. There is a strong support and confidence in composting as an environmentally friendly way to deal with biodegradable waste.

6. In your opinion, what is the real impact on the environment by agriculture waste composting?

The answers with a positive assessment of the real effect again exceed 100%, as most of the respondents gave more than one answer: the majority, 33% of the respondents think that the real effect of composting is the production of compost which significantly increases soil fertility. 26% of the respondents believe that as a result of composting waste from agriculture activity burning of agriculture waste decreased. 24% believe that the number of illegal dumpsites decreased. Other 24% share the opinion that due to the composting agriculture waste generated is utilized in an environmentally friendly way.

9% of the respondents cannot tell what is the effect of composting. It is noteworthy, however, the lack of negative answers - none of the respondents believes that composting has no positive effect on the environment. The answers to this question clearly show the conviction of the majority of respondents in the benefits of biodegradable waste composting and specifically waste from agricultural activity. Considering that 83% of the respondents are farmers, the fact that they appreciate the benefits of compost to increase soil fertility is indicative of the real effect of composting. Since most of the respondents were involved in one or another way in project activities, we can conclude that, thanks to the implemented project activities the awareness of farmers increased and as well as their readiness to compost waste from agriculture activity /fig.6/.



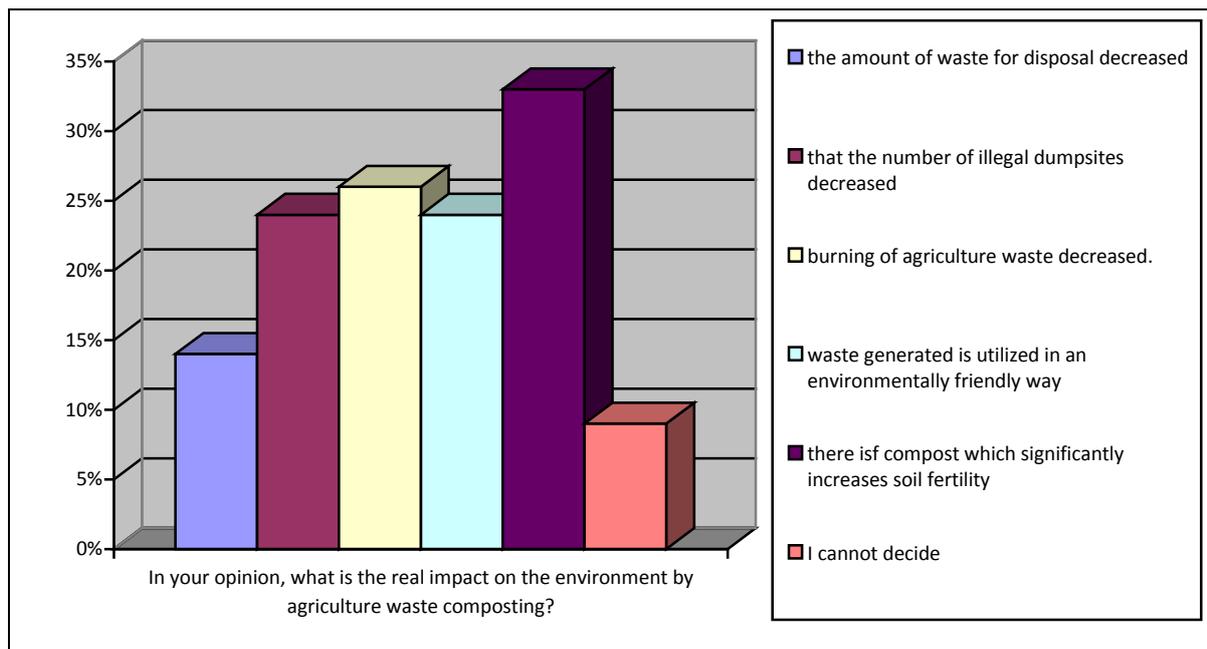


Fig. 6

Conclusions:

1. The majority of respondents think that biodegradable waste composting has a significant positive effect on the environment;
2. 1/3 of the respondents think that biodegradable waste composting contributes to increasing soil fertility;
3. As a result of the implemented project activities the awareness of farmers increased and as well as their readiness to compost waste from agriculture activity;

7. In your opinion, does composting help to protect the environment?

76% of the respondents strongly believe that composting significantly helps to protect the environment. 21% believe that it helps environment protection, but has insignificant effect. There is only one negative response to this question. The analysis indicates strong support for composting as a form of natural resources preservation and environmentally friendly practice. /Fig. 7/.



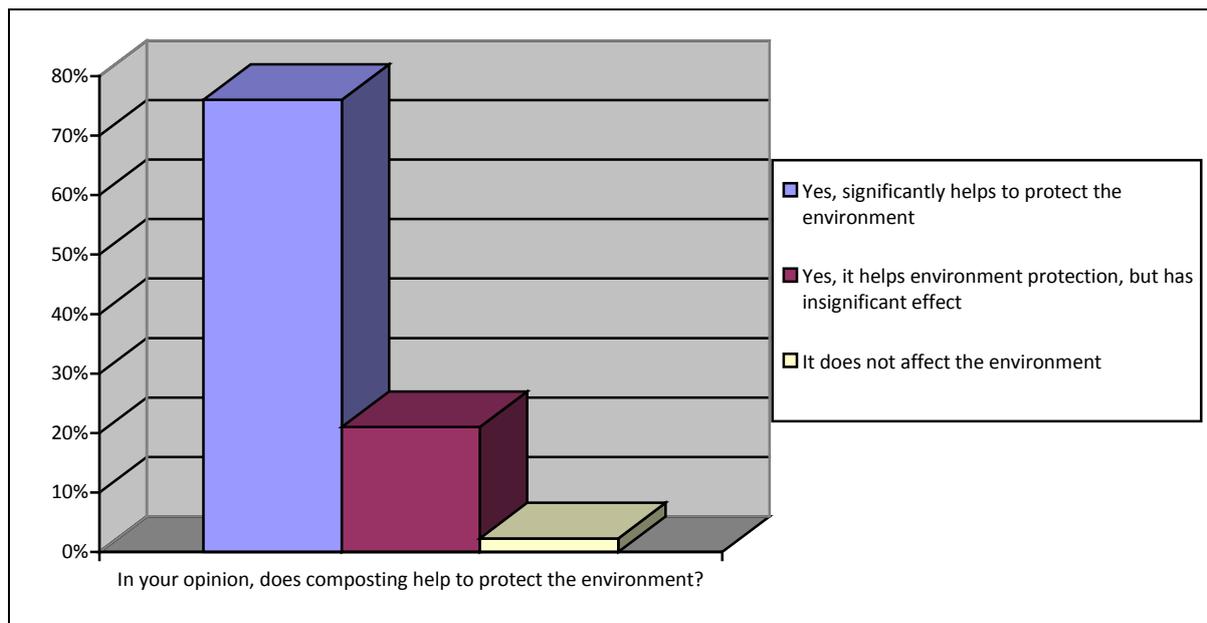


Fig. 7

Conclusions:

1. The majority of respondents believe that biodegradable waste composting helps protection.

8. How did the implementation of project "Joint promotion of agriculture waste composting" influence your attitude towards waste and environment protection?

21% (1/5 of the respondents) said that the project encouraged them to begin to separating waste of plant and animal origin and compost it. I.e. except the 6 farmers selected that took specialized training and in whose farms demonstration composting platforms to be installed, yet another 10 people were intrigued and stimulated by the project to start composting separately collected biodegradable waste. This exactly is the true, real benefit from the project implementation! Even persons who are not direct project beneficiaries and have not received demonstration composting vessels are sufficiently informed and were motivated to start composting.

Other 38% of the respondents said that they have learned new information about agriculture waste and the benefits of composting, which will help them to be more reasonable to waste. To a greater or lesser extent, these respondents were also positively affected by the project because they changed their attitude towards waste and their generating. For another 21% the positive effect of the project implementation lies in the fact that although not yet composted waste is not disposed at the end of the settlement. 7% of respondents have



stopped burning their agricultural waste. The last 2 answers demonstrate a change in the attitude towards the environment and tendency to composting.

17% of the respondents said that as a result of the project they are more informed, but continue to dispose their waste in the container. Since these respondents anyway still make some effort to legally deal with waste - disposal in the container rather than burning or disposal at unregulated landfill, we can assume that if people are further stimulated in one form or another, they can also start composting. It is noteworthy that there are no negative responses to this question. The responses indicate a strong positive impact of the project on the perception and behavior of respondents in biodegradable waste treatment. /Fig. 8/.

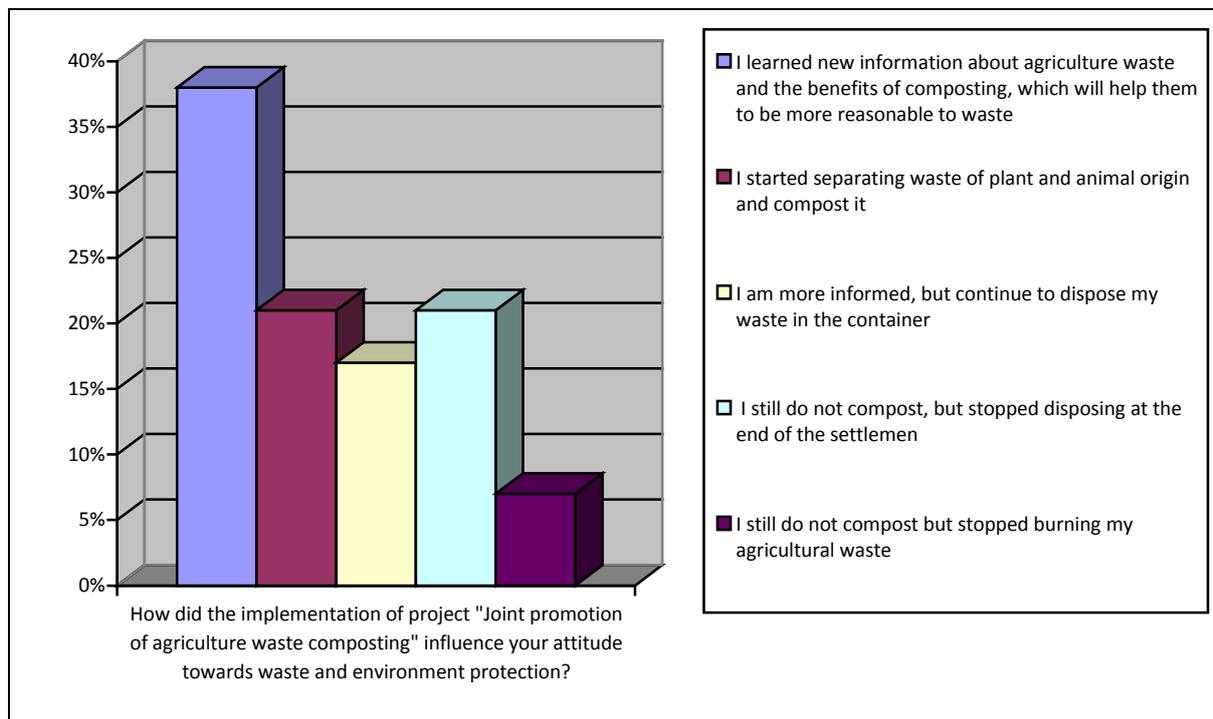


Fig. 8

Conclusions:

1. The majority of respondents were positively affected by the project implementation and have changed their attitude/behavior to the ways of waste treatment and to environment protection.
2. There are respondents who started composted without being direct project beneficiaries (without having received a demonstration composting vessel).
3. An insignificant incentive for already informed people is necessary, but still not enough motivated farmers to start composting biodegradable waste from agricultural activity.



9. Did you try composting your vegetable and animal waste?

21% (1/5 of the respondents) answered positively and emphatically - "Yes, and it worked"! Half of the respondents - a total of 50% tried, but no positive result. Of these, 31% tried, but still do not have ready compost, and the remaining 19% tried, but it did not work. Indicative is the fact that over two thirds of the respondents (over 71%) tried to compost their biodegradable waste. Those who were more stubborn and insistent, tried hard and complied with the strict rules for composting already received ready compost. Those who may have missed something during the cycle of composting are allowed to delay the process, because they still do not have ready compost. Even those 19% who replied hastily that failed composting, sooner or later will enjoy good results. But the fact is that the more stringent we are in compliance with the instructions for proper composting, the faster we will get a quality compost. 17% of the people said they were not trying to compost waste of plant and animal origin, because they do not have enough time and the other 10% - because they believe that composting is difficult. None of the people thinks that there is no sense in composting. We believe that even those 27% who have not tried to compost, with extra motivation will try this ecologically friendly technology for waste treatment. Since they have not attempted, they are still not convinced that composting is not so difficult, and is even easy and enjoyable. The responses to this question demonstrate a high degree of motivation and willingness to compost, and the success achieved is a guarantee of continuing good practice and its promotion among other farmers and households /Fig. 9/.

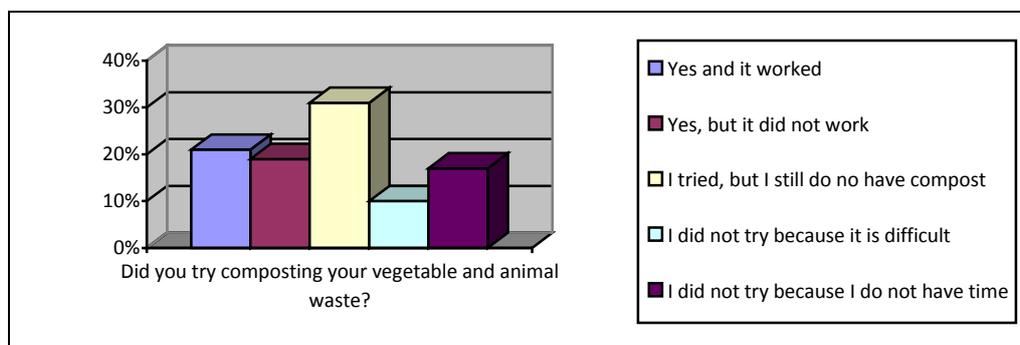


Fig. 9

Conclusions:

1. Over 2/3 of the respondents tried to compost their biodegradable waste;
2. Over 1/5 of the respondents successfully attempted to compost their biodegradable waste;
3. No respondents are negative towards agricultural waste composting;



4. There is a high degree of motivation and willingness to compost, and the success achieved is a guarantee of continuing good practice and its promotion among other farmers and households;

5. An insignificant incentive for those already informed is necessary, but still not enough motivated farmers to start composting biodegradable waste from agricultural activity.

Below are some questions that are intended to provide information on age, sex, education, occupation of the respondents. The information obtained can be summarized and illustrated below by the following graphs:

10. What is your sex?

60% of the respondents are men, 40% are women, which is probably logical in view of the nature of the study and the fact that most farmers are men /Fig. 10/.

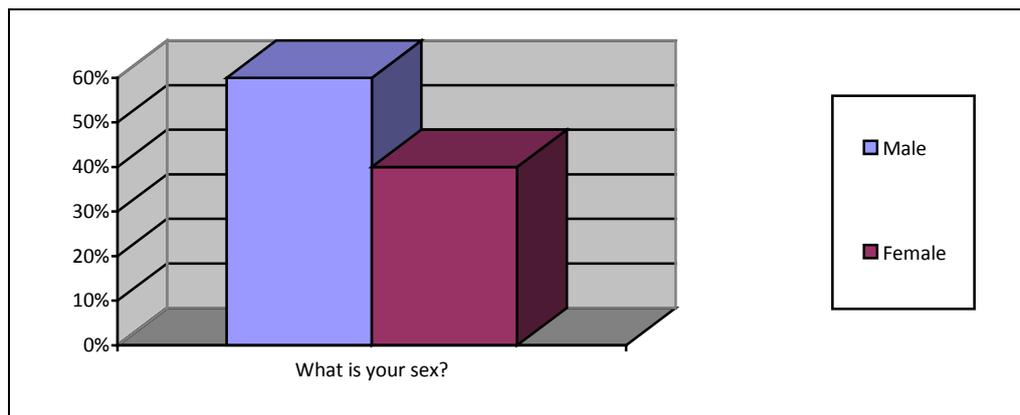


Fig. 10

11. What is your education?

60% of the respondents have secondary education, 38% are university graduates and 1 participant has primary education. It is noteworthy the high percentage of graduates that participated in the questionnaire. The specific information given when completing the questionnaire shows that the majority of the respondents participated in the info activities under the project "Joint promotion of agriculture waste composting" have a positive attitude to composting as a way for environmentally friendly treatment of biodegradable waste, they are motivated and even tried to compost. The high percentage of respondents with higher and secondary education explains the success of composting among farmers and respondents /Fig. 11/.



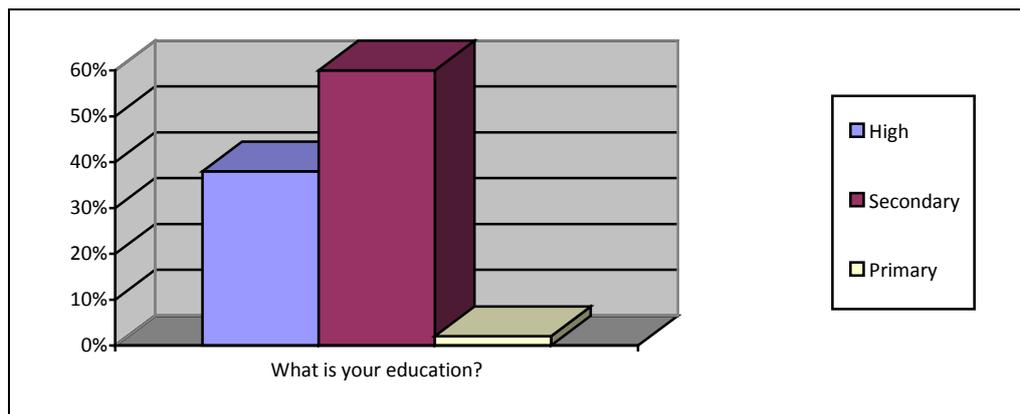


Fig. 11

Conclusions:

1. The majority of the respondents are highly educated people with higher and secondary education.

12. What is your age?

The majority- 31% of the respondents are between 35 and 45 years old. The people between 25 and 35 years old are 17%, 26% are those aging between 45 and 55 years and those over 55 years old. There are no respondents under 25. In view of the fact that 83% of the respondents are farmers, we can conclude that mainly people over the age of 45 are involved in agriculture activities, and those under 25 are not interested in agriculture activities. Nevertheless, the percentage of young people is relatively high - up to 35 years old, involved in agriculture - 17% /Fig. 12/.

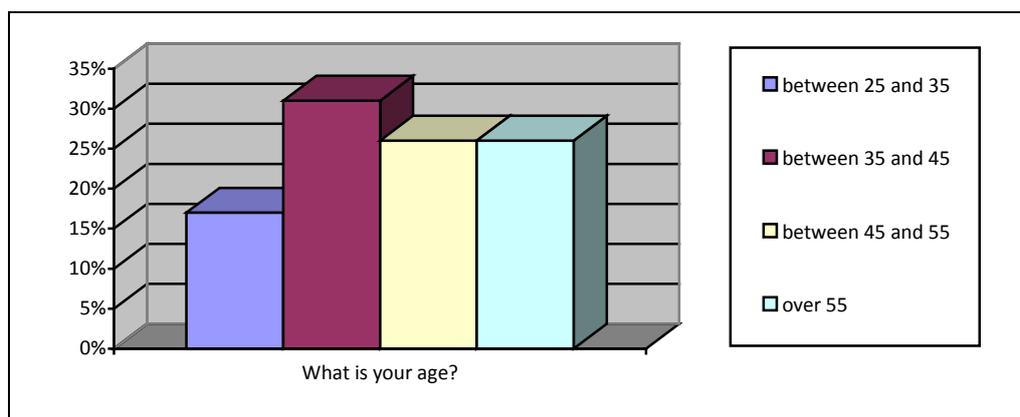


Fig. 12

Conclusions:

1. The majority of the participants involved in agriculture, are older than 35.



13. Are you agriculture producer?

83% of the respondents are positive, and the remaining 17% - not. In view of the above answers, facts and their analysis, we can consider that even those who are not producers are involved in agriculture to some extent and in environmental protection. We believe that the answers received show a high level of motivation among agriculture producers and other respondents to the compost and to change attitudes and behavior towards waste and environment /Fig. 13/.

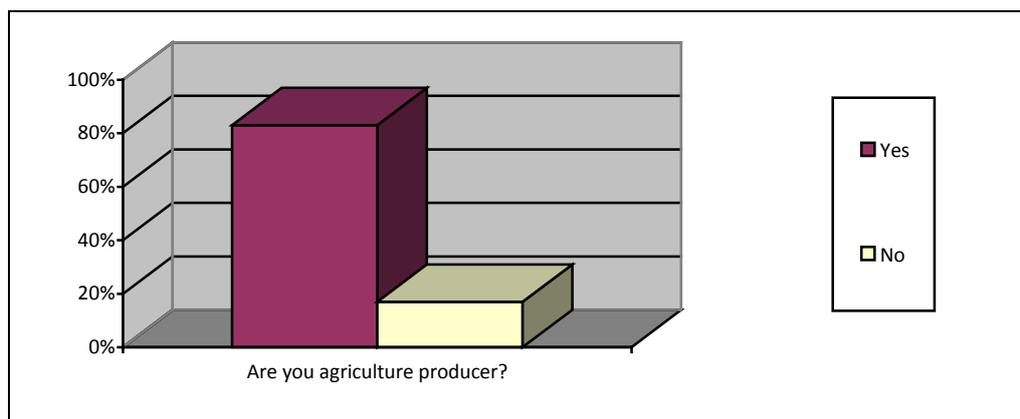


Fig. 13

Conclusions:

1. The majority of the participants are agriculture producers;
2. The majority of the respondents are engaged in agriculture activities even if they are not agriculture producers.

II PART: REVIEW, ANALYSIS AND ASSESSMENT OF THE WORK OF THE MONITORING GROUP IN POMORIE MUNICIPALITY

The Monitoring Group of the composting process was established on 30.05.2014 during a Round table under project «Joint promotion of agriculture waste composting - AGROCOMP». Then were discussed and approved the following members of the Monitoring Group of the composting process in Pomorie Municipality:

Members:

1. Donka Kitanova– Project coordinator of AGROCOMP
2. Emiliya Kuneva – representative of the Municipal Agriculture Office, Pomorie
3. Nikolay Kapriev – representative of Pomorie Municipality, ecology expert



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4. Tanya Gramatikova – representative of Pomorie Municipality, agriculture expert
5. Mariyka Dzhingova – farmer

Alternative members:

1. Valko Zlatev – farmer
2. Slavey Kanariev – farmer

During the Round table and given the busy schedule of the representatives of competent public institutions, and the fact that the participation in the Monitoring groups is voluntary and unpaid, in terms of facilitating the monitoring process of composting, the participants decided that monitoring can be applied both locally and by applying the so-called cameral method. I.e. the presence of actual pictures of the platforms is enough to be discussed at the regular meetings of the Monitoring Group. The decisions of each meeting of the Monitoring Group are recorded in reports describing the progress made in composting and recommendations, if necessary.

Then Monitoring Group of Pomorie Municipality held a total of 3 monitoring visits of the installed demonstration composting platforms. Made during the working meetings the progress in the composting process, the problems encountered and difficulties were discussed.

The first meeting of the Monitoring Group was held on **29.08.2014**. During the meeting, the coordinator of project "Joint promotion of agriculture waste composting - AGROCOMP" and a member of the Monitoring Group presented a summary to the other participants of the visits to the 5 farms where demonstration composting platforms were installed. Photos of the platforms were presented, brief summary of the progress which was discussed by the participants. The participants in the meeting discussed the information presented, photos and reviews. All agree that the five farmers selected have responsibly adopted the idea of composting as a way to deal environmentally with waste generated by agriculture. The main aim and principles of composting were comprehended, the knowledge gained during the specialized training for composting and work with demonstration platforms, the skills are applied in practice in everyday work. All members of the Monitoring Group think that the progress made in composting is very good, and the compost as a result will be of high quality and can be used to improve soil fertility.



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The second meeting of the Monitoring Group was held on **03.10.2014**. During the meeting, the project coordinator and member of the Monitoring Group presented a summary to the other participants of the visits to the 5 farms where demonstration composting platforms were installed. Photos of the platforms were presented, brief summary of the progress which was discussed by the participants. The participants in the meeting discussed the information presented, photos and reviews. All agree that the five farmers are using the composting platforms as intended and take care of them as good farmers. All of them have responsibly adopted the idea of composting as a way to deal environmentally with waste generated by agriculture and see a real product of waste, something they can use to improve the effectiveness of their work. The members of the Monitoring Group believe that due to composting the quantities of agriculture waste decreased and there is responsibly dealing with them, helping to protect the environment. The progress made in composting is very good, and the compost as a result will be of high quality and can be used to improve soil fertility.





The third meeting of the Monitoring Group was held on **23.10.2014**. During the meeting, the project coordinator and member of the Monitoring Group presented a summary to the other participants of the visits to the 5 farms where demonstration composting platforms were installed. Photos of the platforms were presented, brief summary of the progress which was discussed by the participants. The participants in the meeting discussed the information presented, photos and reviews. All agree that the five farmers are using the composting platforms as intended and take care of them as good farmers. All five farmers have made significant progress in the process of composting, as the compost mass is at advanced stage of decomposition/decay/maturation. All farmers expressed satisfaction with the opportunity to utilize waste from agriculture activities and at the same time are pleased to contribute to environmental protection. The members of the Monitoring Group believe that due to composting the quantities of agriculture waste decreased, the costs for waste collection and disposal were reduced, and as a result in a direct and indirect way, there is counteraction to climate change globally. The progress made in composting is very good, very soon the compost will be ready to be used by farmers in the autumn treatment and soil preparation for the new agriculture season.





Conclusions:

1. Farmers in whose farms demonstration composting platforms are installed are using them as intended and take care of them as good farmers.
2. In farms where demonstration composting platforms are installed composting is a successful process and the final product can be used in autumn soil treatment.
3. All farmers expressed satisfaction with the opportunity to utilize waste from agriculture activities and at the same time are pleased to contribute to environmental protection.
4. As result of composting the quantities of agriculture waste decreased, the costs for waste collection and disposal were reduced.
5. The decreasing quantities of agriculture waste disposed, and the reduced costs for waste collection and disposal, have a direct and indirect contribution to counteraction to climate change globally.



MAIN CONCLUSIONS

1. 42 respondents participated in the questionnaire - farmers and other stakeholders of Pomorie Municipality.
2. The objective was to assess the effect of the composting process, the benefits of composting to the level of local pollution and the expected effect on the environment in long term, as well as to evaluate the overall effectiveness and success of the project "Joint promotion agriculture waste composting."
3. The majority of the respondents participated in the events activities implemented under project "Joint promotion agriculture waste composting."
4. The majority of the respondents expressed their satisfaction with the quality and quantity of the information presented about composting and its benefits.
5. Over 2/3 of the respondents think that the amount of agriculture waste disposed decreased or was affected after the project implementation.
6. 2/3 of the respondents believe that as a result of composting the amount of agriculture waste decreases, which is a very high percentage in favor of biodegradable waste composting.
7. Almost all respondents think that the implementation of project "Joint promotion agriculture waste composting" has a significant effect on the level of waste disposed in Pomorie Municipality.
8. There is strong support and confidence in composting as an environmentally friendly way to deal with biodegradable waste.
9. The majority of the respondents think that biodegradable waste composting has a significant positive effect on the environment.
10. 1/3 of the respondents think that biodegradable waste composting contributes to increase soil fertility.
11. As a result of the project activities implemented the awareness and willingness of farmers to compost waste generated by agriculture activity increased.
12. The majority of the respondents think that biodegradable waste composting helps to protect the environment to a greater or lesser extent.
13. The majority of respondents are positively affected by the project implementation and have changed their attitude / behavior to the ways of waste treatment and to protect the environment.



PARTNERSHIP

14. There are respondents who started composted without being direct beneficiaries to the project (without having received a demonstration composting vessel).
15. We need an insignificant incentive for those already informed, but still not enough motivated farmers to start composting biodegradable waste from agriculture activity.
16. Over 2/3 of the respondents tried to compost their biodegradable waste.
17. Over 1/5 of the respondents tried to compost their biodegradable waste successfully.
18. There is a high degree of motivation and willingness to compost, and the success is a guarantee of continuing good practice and its promotion among other farmers and households.
19. The majority of respondents are highly educated farmers with higher and secondary education, aged over 35 years.
20. Farmers whose holdings are mounted demonstration platforms composting, use them as intended and take care of them as good farmers.
21. The majority of the respondents are highly educated people with higher and secondary education aging over 35.
22. Farmers in whose farms demonstration composting platforms are installed are using them as intended and take care of them as good farmers.
23. In farms where demonstration composting platforms are installed composting is a successful process and the final product can be used in autumn soil treatment.
24. All farmers expressed satisfaction with the opportunity to utilize waste from agriculture activities and at the same time are pleased to contribute to environmental protection.
25. As result of composting the quantities of agriculture waste decreased, the costs for waste collection and disposal were reduced.
26. The decreasing quantities of agriculture waste disposed, and the reduced costs for waste collection and disposal, have a direct and indirect contribution to counteraction to climate change globally.



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ASSESSMENT OF COMPOSTING EFFECT ON THE POLLUTION LEVEL IN POMORIE MUNICIPALITY

As a result of the study and the work of the Monitoring Group in Pomorie was prepared assessment of composting effect on the pollution level. The information from the study was analyzed, the results of the monitoring of the composting process were reviewed, summarized and analyzed. As a result, a general assessment composting effect on the pollution level in Pomorie Municipality was developed:

1. The amount of agriculture waste disposed decreased or was affected after the project implementation.
2. The amount of agriculture waste disposed in the target region decreased or was affected as result from composting.
3. The implementation of project "Joint promotion agriculture waste composting" has a significant effect on the level of waste disposed in Pomorie Municipality
4. Biodegradable waste composting has a significant positive effect on the environment in the target region.
5. Biodegradable waste composting helps to protect the environment to a greater or lesser extent.
6. The majority of respondents are positively affected by the project implementation and have changed their attitude / behavior to the ways of waste treatment and to protect the environment.
7. As a result of the implemented project activities the awareness of farmers increased and as well as their readiness to compost waste from agriculture activity.
8. There is a high degree of motivation and willingness to compost, and the success is a guarantee of continuing good practice and its promotion among other farmers and households.
9. In farms where demonstration composting platforms are installed composting is a successful process and the final product can be used in autumn soil treatment, which will bring direct and indirect benefits for the farmer on the one hand, and the environment on the other.
10. As result of composting the quantities of agriculture waste decreased, the costs for waste collection and disposal were reduced.
11. The decreasing quantities of agriculture waste disposed, and the reduced costs for waste collection and disposal, have a direct and indirect contribution to counteraction to climate change globally.





CONCLUSION

In conclusion, we can summarize that the composting waste from agriculture activity is an environmentally-friendly way to deal with biodegradable waste generated. It requires little effort by farmers and no means and you receive an invaluable product with multiple benefits. The effect of composting is undisputed and the results of this study prove it. It is evident that there is a very strong motivation and/or willingness to compost among survey respondents. Few pessimists can easily be persuaded and encouraged to start composting biodegradable waste from the farm and garden.

The overall positive effect of project "Joint Promotion of agriculture waste composting" is clearly visible, and the benefits expected for the environment and the level of pollution will be reported more clearly in long term. The demonstration composting platforms installed are good practice, the promotion and distribution of which will enhance the positive effect of the project. The involvement of local and regional authorities in the ongoing promotion and implementation of biodegradable waste composting, however, is essential for the success of the initiative and turning it into necessity for every farm and home.

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