

Case study:

Gender-responsive waste management service delivery in the City of Bijeljina

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This Case Study is part of NALAS project "Promoting e-learning and regional knowledge base development on gender-responsive budgeting", supported in the framework of UN Women project "Promoting Gender Responsive Policies and Budgets: Towards Transparent, Inclusive and Accountable Governance in the Republic of North Macedonia", financed by Switzerland and Sweden. The views expressed in this publication are those of the authors and do not necessarily represent the views of UN Women, the United Nations or any of its affiliated organizations.

Introduction

The Case study “Gender-responsive waste management service delivery in the City of Bijeljina” is intended to showcase the benefits of engendering waste management practices and how such an approach makes citizens involved in the planning processes, identification of their needs and thus contributes to improving the quality of the overall service, and increasing customer satisfaction with it.

This intervention also aimed to test the earlier developed NALAS Methodology for gender mainstreaming in waste management, and introduce a gender-sensitive approach within the waste management practice of the Public Utility “AD Komunalac” from Bijeljina, Republic of Srpska, Bosnia and Herzegovina.

The Case study should show how even very small investments, if well planned and based on the attitudes and needs of citizens, or different categories of service users, can make a difference and initiate a change in the perception of service users and the commitment of service providers. It ultimately adds to the reaching EU waste management standards and contributes to the overall improvement of local environmental protection.

It is structured so that through steps from the situation analysis in SWM and the status of women and men in the municipality, to the preparation of the initial questionnaire and survey, to focus group discussions shows how to identify measures to improve waste management services by introducing a gender perspective. Also, how such an investment intervention and the improved service need to be communicated to ensure acceptance by the citizens. The Case Study was implemented in the period between May 2021 and June 2022 in the City of Bijeljina as a regional pilot local self-government. The initial plan was to implement the process within a period of 7 months, however, due to Covid-19 circumstances, the process was prolonged to 13 months in total.

The Case study is intended for decision-makers and practitioners in both local authorities and the utility companies in the economies of the SEE, but also to local government associations and other stakeholders that are contributing to raising overall capacities to provide engendered waste management services at the local level.

The Case study “Gender-responsive waste management through waste selection and recycling in the household” is part of the NALAS project “Promoting e-learning and regional knowledge base development on gender-responsive budgeting”, supported in the framework of the UN Women project “Promoting Gender Responsive Policies and Budgets: Towards Transparent, Inclusive and Accountable Governance in the Republic of North Macedonia”, financed by Switzerland and Sweden. It has been prepared by Marija Risteska and Miodrag Gluscevic; NALAS gender and SWM consultants respectfully.

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Methodological approach

The methodological approach used in the process of gender mainstreaming waste management process in Bijeljina was outlined in a Methodology paper of NALAS¹ and implemented in 7 phases/steps.

Phase 1. Acquiring political support, Baseline Assessment and preparatory activities - obtaining political support is one of the most important preconditions for the successful implementation of an activity or initiative at the local level. To acquire political support at the beginning of the process the project team met with the Mayor of Bijeljina who together with the General Manager of the PUC “AD Komunalac” gave consent and supported the implementation of the waste management engendering pilot project in the City of Bijeljina. The support was formalized and given in the form of the Support Letter [Annex 1].

In addition to gaining political support, preparatory activities for the implementation of the pilot project included the engagement of two local experts, a solid waste management expert and a gender expert who, together with regional experts, were to lead the pilot project implementation process in the field. To ensure gender balance in their perspectives in managing the process the local experts were male and female. For the engagement of the two experts, NALAS has developed terms of reference that are presented in [Annex 2] as an example to follow.

One of the first steps undertaken by the local experts was to conduct a Baseline Assessment of Gender Mainstreaming and Waste Management activities in the City of Bijeljina [Annex 3]. It included desktop research and an analysis of the official statistics in terms of demographics and service delivery. In addition, the main local policy documents regulating gender and waste management as well as the institutional framework in the City were analyzed. Based on the analysis the possibilities for the application of the NALAS Methodology were mapped, i.e., the stages in the waste management process that are suitable for the application of the gender mainstreaming measure were considered.

Phase 2. Development of the Piloting Action Plan and Public Communication Plan. The Methodology for the incorporation of gender aspects in waste management at the local level gave a general concept of systematic inclusion of gender equality issues in the field of waste management. Therefore, it is necessary to develop a concrete implementation action plan for engendering of local services. A Piloting Action Plan [Annex 4] was devised by a team of local experts in Bijeljina that includes necessary steps and time dynamics for piloting the Methodology, and a Communication Plan with project's stakeholders. Communication with the citizens or project partners and other stakeholders is a key element for the successful identification and implementation of a measure for the engendering of waste management services. The communication plan is an important and necessary part of the action plan which provides a description of the communication actions, responsible party, the audience, time frame and frequency of communicating, as well as, the channel of communication.

Phase 3. Development of a Questionnaire and conducting of a Survey. Following desktop analysis, a survey questionnaire was developed for primary data gathering on different aspects of the service delivery and the perception of the citizens/customers in the City of Bijeljina. Data was gathered through a questionnaire [Annex 5] consisting of the different question groups covering aspects that included perception of the practices in waste management, different roles family members have in different phases of the waste management process, their needs and expectations as well as the level of satisfaction with waste management services of the City of Bijeljina. 602 citizens responded on the questionnaire during the survey.

Phase 4. Analysis of gathered primary data. In this phase gender analysis of gathered primary data was conducted focusing on the determining gaps and possible inequalities between women and men in the context of the waste management service. The analysis showed that there are no significant differences

¹ Kristina Hadji Vasileva, Miodrag Gluscevic (2020), *How to include gender in solid waste services*, NALAS

between women and men in terms of challenges in solid waste management in the City of Bijeljina. However, the analysis depicted differences between women and men in their behaviour and in the roles they played in waste generation, recycling, onsite handling, and disposal. This allowed for also identifying opportunities for strategic use of the role of women and men in the solution devised to address the needs and expectations of citizens towards a better quality of waste management services. Considering that there are differences in the way women and men look at waste as well as that recycling and reusing of wastes have critical gender dimensions, the gender analysis was critical to inform the next phase of model design.

Phase 5. Problem-solution method in designing a model for waste management. Based on previous analyzes, including a gender analysis of the questionnaire, and the identified differences between women and men as well as the determined challenges for solid waste management, the team applied a problem-solution method in designing - a model for waste management. The proposed model was related to the introduction of primary waste selection in the neighborhood of multi-apartment buildings where residents use common containers for waste disposal. The designed model differs from the traditional approach to waste management which leans toward the generalization of user groups and stakeholders but recognizes the gender differences (i.e. women were more involved than men in the generation and treatment of household waste as well as in disposal) and used them as parameters for designing the model.

Namely, the model aimed at resolving the odour, neatness, and hygiene around the containers which were recognized as one of the biggest problems for both women and men, and to use the different roles of women in the household have to decrease waste generation and commence with waste selection and recycling that will lead to decreasing the waste disposal volume on the landfill and eventual minimization of scents coming out of degrading bio-waste.

The proposed model is based on the introduction of containers for separate collection of different waste fractions [Photo log] followed by a campaign primarily aimed at women as carriers of activities related to the generation, handling, and disposal of waste in the households.

The model design was presented and discussed in two focus groups with two dozen neighbourhood members to test its relevance and applicability. For this purpose, a Focus Group Discussion Guide [Annex 6] was developed including guidelines for the organization of the discussions and the questions to be asked. The focus groups, one made up of women and the other made up of men, were held on the premises of the City Administration of Bijeljina and showed interest, readiness, and acceptance of the new model by future users.

Phase 6. Implementation of a pilot model of engendered waste management service in Bijeljina. This phase was about the implementation of a pilot project that is, the conduction of an engendered model of waste management in Bijeljina. An implementation plan was devised, the design of the technical solution was developed [Annex 7], equipment was purchased including new containers (for mixed waste and containers for recyclables), works for remodeling onsite handling and waste gathering was conducted. Inadditoin, an information/promotion campaign designed, and educational activities implemented in a pilot neighborhood of “1st December” in Bijeljina.

Phase 7. Evaluation of results. An end-line survey was conducted to gain insight into the citizens' experiences in the implementation of the new model of waste management, their satisfaction, and the possible impact it had on the roles of family members in waste management. The evaluation questionnaire [Annex 8] was used to assess whether the model has transformed gender roles in the community and to what extent improved waste management experiences of the population in the neighborhood where it was piloted.

The identified problem(s)

The survey (Phase 3) on solid waste service delivery and the perception of the citizens/customers was conducted among 602 citizens of Bjelina - 357 (59,3%) women and 245 (40,7%) men. It was conducted over a period of four weeks in the context of COVID-19 pandemic via an online survey by including 194 respondents (32,2%) and direct interviewing by engaging two interviewers for approaching 408 respondents which are 67,8% of the total number of respondents. For the online survey, the same questionnaire was posted on the Google Forms platform. The direct link to the questionnaire was sent by e-mail to all addresses in the mailing lists of customers of the PUC "Komunalac", the City of Bijeljina (Department of Local Economic Development) and the NGO sector that support the project. Additionally, banners with links were placed on the front pages of web portals of the City of Bijeljina and the PUC "Komunalac".

The Survey showed that the largest share of residents (85.4%) believe that waste is a problem in their community. Hence, the differences between men and a woman are not large as 49.0% of the total number of women, while 46.5% of men said in the study that waste is a problem for them.

Mainly, the complaints provided to the question of "what is the biggest problem with waste collection and disposal" are related to unpleasant odours spreading from the regional landfill, which is not within the jurisdiction of the utility company AD "Komunalac". Nevertheless, this problem can be indirectly related to waste collection, because the city has not established a system of primary selection, i.e. separate waste collection, so all communal waste, including biodegradable fraction, ends up in the landfill. In addition, another problem recognized through the survey is the lack of a system of separate waste collection and recycling.

The survey depicts considerable gender differences, especially in the roles women and men play in each phase of waste management. For example, in buying household goods that directly contribute to waste generation, the research showed that women, or more precisely the adult females in the family most commonly (57.2%) purchase goods for the household, which is the case with 30.8% of the adult male. Similarly, the waste disposal in bins in the household is most commonly done by adult women (53.3%), while this is the case for only 27.6% of the adult male. The trend of women having a more important role in waste management continues when the waste selection was assessed. The survey showed that 60.8% of adult females do the selection of waste, which is the case with 28.4% of males.

Finally, women are key in bringing out waste to the waste tray (bin/container), because most commonly (57.0%) of adult females do this in the household the research showed, while this is the case with 24.1% of males. Therefore, the research showed that women have a bigger role in waste management, and in any new model design they should be used as a targeted resource for the improvement of the waste management process.

In conclusion, problems identified through the baseline survey and the analysis of the results refer to the absence of source separation of household waste, and insufficient awareness of the importance of different gender roles in households when it comes to waste management.

The solution - Engendered Model of Waste Management

The objective of the solution – the engendered model of waste management – is based on the utilization of the different gender roles of women and men to implement a new waste management process based on awareness-raising, capacity building, waste selection, and recycling that will decrease waste generation, and the waste disposal volume on the landfill and eventually minimize scents coming out of degrading bio-waste.

To this end, the model was developed to address the main problems: lack of separate waste collection, and absence of recycling. While the priorities of women and men were similar, the roles of women and men in waste management in the household were different which is why women were specifically targeted as a group in the pilot model implementation.

The pilot project was proposed to be implemented in a restricted territory, a neighbourhood with a limited number of users (up to 50 households). The selection of the pilot neighbourhood was done in an agreement between the Bijeljina City Administration, and utility AD “Komunalac”. It was selected based on several criteria such as that the neighbourhood included a block of multi-apartment buildings that use common containers for waste disposal, that there was an association of tenants, that there was an adequate location that could be quickly rearranged, and that residents of the neighbourhood participated in the baseline survey. Following these criteria, a neighbourhood “1st of December” was chosen for the implementation of the pilot project.

The pilot project implementation was realized in two phases: a) Preparation of the location and introduction of containers/bins for source separation, and b) Design, and execution of the education/awareness-raising campaign.

To provide proper conditions, an infrastructure intervention on the waste collection box was envisaged. It involves the construction of a shelter (collection box) that integrates containers for mixed household waste and separated fractions. The shelter also includes a fence that will ensure repulse of the street animals and thus ensure more safe infrastructure for women, boys, and girls.

The infrastructure intervention also envisages a solar-based light that should ensure the safe utilization of the collection box in the evening hours. In addition, the measure anticipates purchasing three new containers for mixed household waste with a pedal to be manipulated by the leg which ensures an easy utilization even by the women, girls, and elderly people. The model also improves the hygienical conditions of the entire collection box. Additional two containers for two fractions were contributed by the PUC “AD Komunalac”. Also, the PUC increased the frequency of transportation of the waste and recyclables for the hygiene of the collection box to be properly maintained.

An Architect has been engaged to develop the technical design and technical documentation [Annex 7] necessary for the construction of the collection box. The Architect also performed as a supervisor of the field works. Based on the technical documentation a local construction company was engaged.

The measure also involved a soft component for educating the citizens on the primary separation of household waste and its disposal in the designated containers. A small-scale promotional campaign will be conducted by approaching the citizens and Communities of Residents through posters and flyers [Annex 9].

The first step in the preparation of the location was to produce a detailed design based on which a bill of quantities and a financial calculation for the procurement of works and equipment were made. Ideally, the conceptual design should be checked with customers and passed through a gender lens to acquire ownership and acceptance of future users. In this particular case, there wasn't enough time to conduct this step, so the design was accepted by the Bijeljina City Administration, and utility AD “Komunalac”. The appearance of the solution and the location is given below within the photo log.

Purchase of goods and equipment was conducted through the public procurement process based on the design and the bill of quantities. In the case of this pilot, only construction services were procured since AD "Komunalac" already had containers for the source separation. The local entrepreneur did the construction and preparation of the location at a high level.

The implementation design also incorporated gender perspectives. For example, the onsite waste disposal installed new containers that were protected from animals with safety nets and lightning was installed to create a better public safety perception of women in the neighborhood considering that they most commonly dispose of the waste of their household in the containers.

The second step was the educational and awareness-raising campaign that aimed to maximize the role women have in a generation, selection, recycling, and waste disposal as demonstrated by the baseline research.

Therefore, the communication and educational materials developed used gender-sensitive language allowing for women to self-identify as key implementers of the measures and include other family members in the new mode of waste generation, disposal, selection, and recycling. This was expected to transform gender roles in the household and have a positive impact on a more balanced share of waste management responsibilities among family members.

Informative sessions and training/education were based on the flyer and other info/educational material that was developed (see photo log) by the project team and accepted by the Bijeljina City Administration, and utility AD "Komunalca".

The information campaign was conducted for two weeks and included a door-to-door campaign, distribution of flyers in mailboxes, and posting of info-materials on billboards in the neighborhood and other visible places (see photo log). The campaign commenced parallel to the finalization of the site, this is crucial for the success of the intervention.

Monitoring and evaluation of the pilot intervention need to be done in two ways. One involves examining citizens/customers' satisfaction through a short door-to-door survey, and the other by assessing the amount of waste sorted over a period of time. A door-to-door survey was conducted by a couple of interviewers who used a questionnaire created for that purpose.

The evaluation of the improvement of waste sorting/recycling will be monitored in regular iterations by AD "Komunalac".

Results of the satisfaction survey

The end-line satisfaction survey was conducted after two weeks of application of the model. We recommend more time to be allocated for implementation, but even this limited time allowed for first impressions to be formed and therefore assess the model's success and its impact on gender equality. Participants in the survey were fairly balanced (with 56% of surveyed women and 44% men) and were asked if they are satisfied with the new way of collecting waste. Interestingly, the model was positively assessed by all women in the survey sample and 86.36% of men, while 4.55% of the men were not satisfied and 9.09% of surveyed men expressed having no opinion. Women had a higher degree of satisfaction, as 80% of them liked the selection of waste process as compared to 60.87% of men.

The results of the pilot showed that the model has improved gender relations as the number of men involved in waste selection increased which decreased the burden of unpaid work for women at home. Namely, less than 30% of men before the implementation of the pilot model were involved in waste selection (28.4% of males to be precise), and after the new model was launched 44% of respondents consider that men were more interested in waste selection and separation than before. In addition to 28% of the survey participants believe that children are more included in waste selection as and waste separation. This inevitably improves the distribution of unpaid work at home and has an impact on the free time women have, especially considering that the baseline survey showed that the waste disposal in bins in the household is most commonly done by adult women (53.3%), and 60.8% of adult females do the selection of waste.

However, the end-line assessment of the pilot also showed that the model should be improved further. The end survey results depict that 20% of the surveyed women think the model should be changed, and 39,13% of men surveyed. In this respect, it is recommended that with continuous evaluation of the waste management process, AD "Komunalac", can imperfect what was implemented.

List of Annexes to the Case Study

Annex 1 - Example of the Support Letters

Annex 2 - Examples of the Terms of Reference for the Local Waste Management and Gender experts

Annex 3 - Baseline Assessment

Annex 4 - Example of Action and Communication Plan

Annex 5 - The Survey Questionnaire

Annex 6 - Focus Group Discussion Guide

Annex 7 - Collection box technical design

Annex 8 - Example of the evaluation questionnaire

Annex 9 - Promotional Materials – flyers, stickers and posters

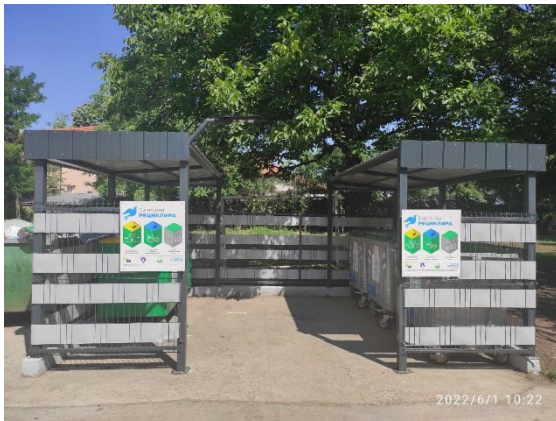
Photo log



The appearance of the site before the implementation of the pilot project



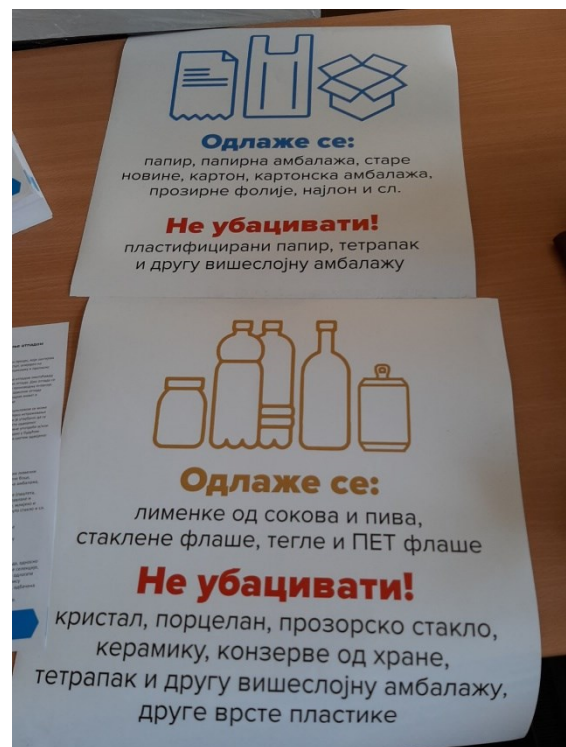
Preparation of the pilot project location



Completed location of the pilot project with containers source separation and instructions for users



Materials for the awareness-raising campaign





Conduct an awareness-raising campaign



Communication with the citizens – an end-line assessment