

PROJECT APPRAISAL DOCUMENT

GRANT APPLICATION

MUNICIPALITY OF DOLNENI

**PROCUREMENT OF COMBINED DIGGER FOR THE TRENCH AND MINI DIGGER WITH
RUBBER BANDS**

September 2020

MUNICIPALITY OF DOLNENI

I. PROJECT DESCRIPTION

A. Background

The Municipality of Dolneni is located in the northwestern part of the Pelagonija valley at an altitude of about 600 meters. It was established with the Law on Territorial Division and the Law on Local Self-Government dated 1996 and was expanded with the incorporation of the Municipality of Zitoshe with the last Law on Territorial Organization of the Republic of Macedonia on 2004. The Municipality of Dolneni covers an area of 412.43 km² and it can be divided into two different areas. The larger part, which occupies 2/3 of the area, is a plain with 90% of arable land, and the second part, which covers 1/3 of the total area, is a hilly-mountainous area, partly covered with pastures and forests (oak, beech, ashtree, etc.).

The municipality of Dolneni consists of 37 settlements, which according to the 2002 census live 13,805 inhabitants, but this number today is certainly higher and exceeds 14,000 inhabitants. These are the following settlements: Belo Pole, Brailovo, Vranche, Gorno Selo, Gostirazni, Debreshte, Desovo, Dolgaec, Dolneni, Drenovci, Dupjacani, Zabjani, Zitoshe, Zabrcani, Zapolzani, Zrze, Kostovni, Loshenci, Loshino, Koshino, Malo Mramorani, Margari, Nebregovo, Novoselani, Pestalevo, Rilevo, Ropotovo, Sarandinovo, Sekirci, Senokos, Slepche, Sljeje, Sredorek, Strovija, Crnilishte and displaced Dabjani.

All settlements are rural, half of the total population lives in several settlements with between 1,000 and 3,000 inhabitants, while the rest of the population is housed in other settlements with between 100 and 400 inhabitants. The administrative center of the municipality is located in n.m. Dolneni. The population in the municipality has a mixed ethnic composition, the most dominant being Macedonians with 36.84%, Albanians with 27.65%, Turks with 19.14%, Bosniaks with 15.41% and others with 0.6%.

According to the 2002 census, there were 13,805 inhabitants in the Municipality of Dolneni.

The Municipality of Dolneni has participated in the Second MSIP in 2019. The Municipality and the Ministry of Finance signed a sub-loan agreement on 11.12.2019 in the amount of 22.775.081,00 MKD. This sub-loan was used for two sub-projects which refer to Reconstruction of existing streets 3, 4, and 5 in the settlement of Crnilishte and Reconstruction of the riverbed of the existing drainage channel (dry ravine) in the settlement of Crnilishte including sidewalks. The contract was signed with the contractor in the amount of 17.945.031 MKD.

After the successful implementation of 10% of the sub-loan projects and completion of the Urban Audit, the municipality obtained the right to apply for a Poverty and Social Inclusion grant.

Municipality of Dolneni on the bases of the signed contract for loan acquires the right to use the social inclusion grant up to a maximum of 27% of the total contract amount or Denars 4,845,158.00. The funds from the grant are used for: Procurement of combined digger for the trench and mini digger with rubber bands of public hygiene in the Municipality of Dolneni.

The project was presented to the Municipal Council at its session in April 2020, 08-591/3. The decision on project implementation was welcomed by the municipal Council comprising representatives of different political parties.

B. PROJECT DESCRIPTION

This project assumes purchasing of trench digger for the municipality of Dolneni for the maintenance of public hygiene and cleaning activities during four seasons.

The Municipality of Dolneni needs to invest in public services in general. Infrastructure, use of environmental and sanitary services, maintenance of the banks, cleaning of the canals and riverbeds would allow the locals to have better access to the regional road and the agricultural areas they cultivate. In order to improve public services is needed some mechanization.

The vehicle that should be purchased are:

1. Combined digger for the trench
2. Mini trench digger with rubber bands

Current situation

The mapping of the population as per the final UA draft of Dolneni (fully served with public services, not fully served and irregular housing) reveals that settlements: **Vrance, Strovija, Rilevo** are mostly with irregular housing settlements meaning that larger part of the population of these settlements is excluded of some of the services like local road, communal services, electricity. The other settlements are fully served with public services or not fully served with public services.

The scoring of settlements as per the accessibility of public services thus, as per the draft UA of Dolneni is illustrated in the next table.

	Settlements	Ranking
1	Dabjani	0
2	Kutlesevo	0
3	Margari	0
4	Slivje	0
5	Vrance	1
6	Strovija	1
7	Rilevo	1
8	Sarandinovo	2
9	Zabjani	2
10	Zrze	2
11	Kostinci	2
12	Mramorani	2

13	Gornoselo	2
14	Dolgaec	2
15	Sredorek	2
16	Belo Pole	2
17	Gostirazni	2
18	Drenovci	2
19	Zabrcani	2
20	Kosino	2
21	Lokveni	2
22	Nebregovo	2
23	Novoselani	2
24	Slepce	2
25	Dupjacani	2
26	Brailovo	3
27	Zapolzani	3
28	Sekirci	3
29	Senokos	3
30	Dolneni	6
31	Pestalevo	6
32	Ropotovo	6
33	Desovo	10
34	Lazani	12
35	Zitose	14
36	Crniliste	14
37	Debreste	15

The ISPI table of the Dolneni's UA presents 37 settlements. The quantitative scores per each settlement are ranging from 1 (poor) to 15 (good). Namely, following the ISPI table, the municipality has scored each and every settlement for the access of services of the

population from these settlements. The settlements ranked zero and one were excluded from the further analyses for the reasons already explained. The services taken into consideration by the municipality of Dolneni are local roads with asphalt, water supply, sewage, electricity, communal services, access to superstructure objects for the purpose of education, health, culture, and public administration. These scores were grouped into four main pillars: housing, roads, ecology, and sanitary services, and superstructure objects. Then, each of the scored settlements was given a proper ranking by a pillar (ranking from 0 to 4). By summing up the assigned ranks by pillars, each settlement could have final quantitative scores from 0 to 15 depending on the access to and the quality of the supply of the proper services.

The following settlements/neighborhoods are most deprived as per the ISPI analysis with quality of life given the underserved public services: **Vrance, Strovija, and Rilevo** with the lowest ranks as per the draft UA of Dolneni.

In the next photos, we present selected parts of the settlements of Dolneni from the most deprived settlements as scored by the ISPI analysis of the first UA draft. Photos were taken during the physical verification of these most vulnerable settlements in Dolneni by the local consultant.



Source : Canals and riverbeds in the municipality of Dolneni

According to all that has been done so far, maintaining public hygiene and cleaning activities on roads, streets, canals, and riverbeds in these settlements is a priority. The investment in

communal services in settlements such as Vranche, Strovija, and Rilevo as well as in other settlements are in the measures of the municipality determined in the strategy for local economic development to prevent the internal emigration of the population within the municipality of Dolneni.

We appreciate that the investments in the communal sphere in these settlements will contribute to the improvement of living conditions as well as to the reduction of migration within the municipality itself, as well as outside it, providing the population with better communal services and providing a better quality of life. If these utilities were to be provided in the above-mentioned settlements, the living population would also have better and easier access to their fields and arable land.

At the moment, the maintenance of the local roads and streets is in municipality jurisdiction, and it's very hard to do it because of the lack of vehicles, specialized for this purpose.

The local roads in a lot of the villages, need to be maintained more regularly, considering that they are very hard reaching roads and constantly destroyed in wintertime and by rain. Even though not a lot of people are living in these villages, the roads to them need to be maintained, because they are very important for developing the rural tourism or the people that live in those villages that these roads connect, have livestock or other obligations.

The maintenance of the streets means cleaning the snow in wintertime, cleaning channels, penetration of polish roads, leveling roads, etc. So far, the municipality for this purpose uses a backhoe loader that is owned by Pelagoniski Planski Region, and also for a lot of different current needs, but it uses it for a maximum of two months per year, considering that the same backhoe loader is used by 9 municipalities in total, which is not even nearly enough time to meet the needs of the municipality.

This is also where a combined trench and mini trench are required and needed. Besides this, the equipment is needed for cleaning the wild dump sites, cleaning the river beds and canals, excavating wells, excavation of canals, holes, digging canals, cleaning of places for illegal landfills, cleaning of riverbeds and canals, etc.

The handling and the maintenance of the machines that will be purchased will be done by the CSE Dolneni. So far, the municipality makes a public procurement tender for winter maintenance of streets and roads, considering that it does not have its own equipment for this. 10.000-15.000 EURO from the municipality's budget is spent every year for this purpose, but so far, the communication with the selected contractor is not very good and the winter cleaning is not realized with the desired dynamics.

Also, there are procurements for cleaning and penetrating dirt roads, cleaning wild dump sites, construction machinery and cleaning river beds and canals that makes the yearly expense of the municipality for these purposes around 75.000 EURO.

So far, this project was not a priority for the municipality, considering that priority was paving and building local streets, but as the needs grow for such machinery, the municipality decided to purchase them. In order to overcome this situation, the Council of the municipality of Dolneni adopted a decision for the purchasing of these specialized vehicles.

By investing in service opportunities, as well as job assistance, connecting to the construction network, sewerage, utilization of canals, wells, etc., you can get better access to the Internet.

With an investment to improve public services, as well as for smaller construction works, for connections to the water supply network, sewerage, for excavated canals, wells, etc., the costs of the municipality would be greatly reduced.

Overall, the supply of the necessary machines to provide quality public services to the population will contribute to a better quality of life and well-being of all residents in the municipality of Dolneni.

Also, people will have better roads to reach their villages, their fields, illegal landfills will be cleaned quickly and efficiently, people will have much cleaner roads and clean environment.

The main objectives of public services are:

- Improving public hygiene and communal services in the municipality
- Reduction of maintenance costs, cleaning of roads and penetration of field roads

- Easy access to every village in the municipality and to make it easier for farmers to reach their fields.
- Roads, riverbeds, and canals will be cleaned on time, field roads will be cleared on time, streets will be cleaned which will improve public hygiene.

Current situation for sub-project purchasing of a combined digger for the trench

CSE Dolneni own a:

1, Dump truck, Year of production: 2003. Donation through the LEAP project .The vehicle is depreciated and defects begin to appear.

2..Garbage truck

Year of production: 1995

Purchased with own funds.The vehicle is quite depreciated and begins to appear defects and problems in performing the activities for which it is intended

3. Litter truck with containers of 3 m³ and 5 m³

Year of production: 2010

Donation through the Swiss Development Agency

The vehicle is quite depreciated and defects are starting to appear on it.

4. Digger for the trench;

Year of production: 1985

Purchased with own funds.The excavator is very old, defects occur very often, worn out, there is no power, it is not possible to plan a more extensive work, network expansion, etc., ie we mostly use it to repair defects, but it is also a problem due to frequent excavator defects the excavator is practically completely non-functional.

All of these vehicles are very old and require a lot of maintenance costs.

The municipality does not own in function a mini trench digger with rubber bands .

Future situation for sub-project purchasing of a combined digger for the trench.

The combined digger for the trench is needed for cleaning the wild dump sites, cleaning the river beds and canals, excavating wells, excavation of canals,holes, digging canalscleaning of places for illegal landfills, cleaning of riverbeds and canals,etc.

The municipality's budget will save every year with the supply of the necessary matchfor cleaning and penetrating polish roads, cleaning wild dump sites, construction machinery, and cleaning river beds and canals takes around 75.000 EURO.The supply of the necessary machine to provide quality public services to the population will contribute to a better quality of life and well-being of all residents in the municipality of Dolneni.

Current situation for sub-project purchasing of amini trench digger with rubber bands

The municipality does not own a mini trench digger with rubber bands. All vehicles CSE Dolneni owns are very old and require a lot of maintenance costs.

Future situation for sub-project purchasing of amini trench digger with rubber bands

With mini trench digger with rubber bands regular cleaning of the canals, especially in small settlements, it would provide local and better access to the regional road and the agricultural areas they cultivate.Thecosts would be lower for Improving public hygiene and communal services in the municipality.

Overall, the new machines will contribute to a better quality of life and the well-being of all residents in the municipality of Dolneni. It will contribute to traffic safety, a sense of security for pedestrians, traffic capacity, and comfort at times of rainfalls for all traffic participants. Also, the people will have better roads to reach their villages, to their fields, the wild dumpsites will be cleaned fast and efficient, people will have much cleaner roads and a clean environment.

These vehicle investments shall reduce the cost of fuel consumption and vehicle repairs and maintenance. Regarding noise standards, new generation trucks and machines shall comply with the legislative norms.

As mentioned above, the municipality will oblige the CSE Dolneni to work and take care of the vehicles.

GOALS OF THE PROJECT

The main goals of this project are:

- Improvement of public hygiene in Vrance, Strovija, and Rilevo
- Lowering the costs of cleaning the roads and penetrating the field roads in these settlements
- Easy access to each of these three villages in the municipality during the winter and make it easier for farmers to reach their fields

GOAL	Improvement of public hygiene and cleaning of riverbeds and canals and roads in Vrance, Strovija, and Rilevo
PROBLEM	Low level of public hygiene, low level of successful maintenance of the streets and roads in the three settlements
MEASURES	<ol style="list-style-type: none"> 1. Solving the problem with cleaning of the roads and riverbeds and canals in the three settlements 2. Cleaning the roads 3. Modernization of the municipality fleet of vehicles

Owning these three vehicles will have many benefits for the residents of the settlements. The roads will be cleaned on time, the riverbeds and canals and roads in the roads in Vrance, Strovija, and Rilevo field roadswill be cleaned and that will improve public hygiene, and all of this will cost less than making a public procurement tender.

The roads will be cleaned on time, the riverbeds and canalsimprove public hygiene, and all of this will cost less than making a public procurement tender.

II.SOCIAL IMPACT OF THE PROJECT

The methodological approach is based on the concept that corresponds to implementing a sociological study using the Five Input Parameters approach. These five input parameters are:

- Social and gender diversity,
- Institution, rules, and behavior,

- Stakeholders,
- Participation,
- Social risk.

The sociologic study was performed on the spot and included observations, meetings with focus groups, and interviews. In addition, it included face-to-face interviews with five top officials of the municipality (the Mayor, three advisors, and the director of the public enterprise).

Social and gender diversity

The main priorities of the Municipality of Dolneni are set out in the "Strategy for Rural Development of the Municipality", and they refer to the improvement of the quality of life of the local population, as well as communal services are amongst the highest priorities of the municipality. Residents of different social groups (minorities, gender, language, and social and economic status) living in the settlements are subject to this assessment. The direct project beneficiaries are inhabitants (of which 51% are male and 49% are female), while indirect beneficiaries are people in the local farms, industrial facilities, tobacco producers, dairy producers, farmers, and livestock breeders and other people that use the arable land and property owners from the surrounding villages.

Institutions, rules, and behavior

The Law on Local Self Government (Official Gazette of the Republic of Macedonia 5/2002), among other issues, regulates the municipal competences. The law states that the maintenance of public hygiene is a communal activity.

Having this in mind as well as the current situation, the municipality is taking the initiative to resolve the problem of the low quality of public hygiene of the streets and roads in Vrance, Strovija, and Rilevo. The municipal Council provides full support and has the right to seek from the Mayor up-to-date information about the progress of the project. A meeting was held with the representatives of all communities in the municipality. At this meeting, the Mayor presented the current situation and enlisted the support of the population from all three local communities to take further steps to solve the environmental problem with the help of MSIP funds.

Stakeholders

The number of employees in the municipality of Dolneni, CSE Dolneni, residents in the settlements Strovija, Vrance and Rilevo and their gender are shown in the following tables:

Organization	Number of -employees	Male	Female
Municipality of Dolneni	<u>253..0</u>	<u>21</u>	<u>4</u>

Organization	Number of Employees	Male	Female

CSE Dolneni	<u>27</u>	<u>26</u>	<u>1</u>
-------------	-----------	-----------	----------

Settlements	Number of citizens	Male	Female
Vrance	<u>105</u>	<u>65</u>	<u>40</u>
<u>Rilevo</u>	<u>69</u>	<u>36</u>	<u>33</u>
<u>Strovija</u>	<u>35</u>	<u>20</u>	<u>15</u>

The main stakeholders are citizens. Although the citizens are not organized and face plenty of other problems, they regard public cleaning and environmental issues as a priority.

Regarding the project, consultations were held with residents in all settlements, which were attended by almost all residents. A total of 85 residents attended the settlement of Vranche, of which 60 men and 25 women. The settlement of Rilevo was attended by a total of 50 residents, of which 39 men and 11 women, In the settlement of Strovija, a total of 30 residents attended, including 22 men and 8 women.

The non-governmental organizations, as an influential party, approve the project only due to public cleaning. Otherwise, they give a higher priority to projects related to environmental protection.

Another significant stakeholder in this project is the Mayor. The mayor is informed about the problems with the public cleaning every day through frequent citizen's complaints. The political parties, through their participation in the municipality council, expressed their interest in this project, because they are also informed by the citizens, as well as because of their personal living experience.

The municipality council is powerful and therefore its support is significant.

Social risk

There are no threats and high social risks associated with this project, due to the simple reason that the project is supported by all stakeholders.

Citizens engagement

These sub-projects were generated through an adopted practice of the municipality of communicating with the local citizens. Many of the citizens on the meetings that officials from the municipality have with them, were complaining about dirty roads, unreachable locations all around the municipality, especially during wintertime, too much garbage in wild created dump sites, floods created by unclean river beds and canals and a lot of other problems with similar nature. This is where the idea of buying these machines came from.

The municipality has a well-established practice of citizen engagement activities in monitoring the project implementation process. This includes informing them through social media, Facebook, Twitter, Instagram, municipal bulletin board, designated citizen's hours for meeting with the Mayor of the municipality, and also every citizen can get information about the implementation of the municipal projects every day by the municipality staff.

The project is expected to influence the overall wellbeing in the municipality, and it is expected the local citizens to give full support during the implementation of the project.

Conclusion about the potential success of the project and recommendations

The project should be socially successful for the following reasons:

- The project focuses on public hygiene and therefore is useful for the health of the citizens
- The project is part of the municipal priorities and the priorities of the majority of citizens,
- Most of the stakeholders are motivated by this project,
- Considering the ethnicities, none of the other ethnicities is concentrated so much as to prevent the project realization in case of their discontent,
- The project does not bear a high financial burden in comparison with the budget and the population is not put into a position to contribute financially, so there is no cause for conflict on this point.

III. ENVIRONMENTAL IMPACT OF THE PROJECT

The project main goal is to improve the existing low level of public hygiene in the municipality of Dolneni: cleaning of the roads, streets, and maintenance of the roads (marking, building) as well as modernization of the CSE Dolneni equipment fleet.

The procurement of 2 vehicles aiming to improve public hygiene across the Municipality of Dolneni will have a very positive impact on general hygiene management in the municipality. The project consists of procurement of the following vehicles: a) Combine digger for the trench and b) mini trench digger with rubber bands.

The project activity (purchase, delivery and running of the basic equipment for public hygiene) has very low limited adverse environmental impacts mainly possible to happen if the regular annual pre-registration test and regular maintenance and repair are missing and those impacts will be short term, with local significance, possible to occur and very low intensity. The potential impacts are mainly on health and safety of the workers, air quality due to emissions of GHGs, and other pollutants (CO, HC, PM, and NOx), soil/water pollution if any oil leakages occur and noise disturbance if the technical specifications of the new vehicles are not in compliance with the national legislation.

In order to prevent and reduce possible environmental and occupational safety risks, the procurement of the new vehicles for CSE Dolneni from Dolneni should be in accordance with the following standards:

- I. Minimum engine requirements aiming to limit the ***air pollutant emissions*** within the national level standards, as follows:
 1. Combined digger for the trench: Diesel engine minimum EU Stage IIIa,
 2. A mini trench digger with rubber bands: Diesel engine minimum EU stage IIIa.
- II. EU Directive 2000/14/EC (*noise specification* - noise level lower than 103 dB (A)); To comply with this, the Bidder shall propose vehicles which will possess Compliance Letter

in line with the *Rulebook for the closer types of specific sources of noise and terms and conditions which should be fulfilled by the facilities, equipment, installations, and devices that are used in the open space in respect of the emitted noise and the standards for noise prevention* (Official Gazette No. 142/2013).

- III. The driver/s involved in driving the new vehicles should be also trained on environmentally friendly driving to increase fuel efficiency, to maintain the vehicle clean and in good running condition.

The regular maintenance of the vehicles during the **operational phase** is crucial for the minimization of environmental and occupational safety risks. The Dolneni staff and the municipal staff are responsible for the implementation of the mitigation measures during the operational phase (running of the vehicles) and they are responsible for monitoring as well. The following Environmental Mitigation and Monitoring Plans propose the mitigation measures and parameters to be monitored in order to minimize the adverse project OH&S, environmental and health impacts.

A. ENVIRONMENTAL MITIGATION PLAN

Potential impact	Impact scale	Proposed mitigation measures	Responsibility
Project activity: Procurement and delivery and put into operation of 2 roads cleaning vehicles as basic equipment for maintenance of public hygiene for Municipality of Dolneni			
<p>Possible adverse health impacts on workers and inhabitants due to:</p> <ul style="list-style-type: none"> Non-compliance with strict OH&S standards <p>No training delivered to the driver/s</p>	<p>Local/within the Municipality of Dolneni</p> <p>Long term</p> <p>/major</p>	<ul style="list-style-type: none"> The preventive measures need to be implemented when the new vehicles are delivered: <ul style="list-style-type: none"> Check all technical specifications of the delivered vehicles and compare with the technical requirements established before the tender procedure Check the fuel quantity, lubrication oil quantity, braking, and steering system at the spot and lighting system as well Review the producer manual and driving manual recommendations for smoothly running of the vehicles (nomination of the responsible person within the CSE Dolneni) Delivery of short running training to drivers of the vehicles for the most economically running Delivery of training for regular maintenance of the vehicle as well Implementation of the Occupational Health & Safety measures for prevention of COVID -19 for the workers and participating municipal staff, during the procurement process 	<ul style="list-style-type: none"> Contractor –Bidder Director of the CSE Dolneni Municipal staff
Project activity: Put the vehicles into operation			
<p>Environmental and health impacts to workers and inhabitants due to:</p> <p>Improper putting into operation (running),</p> <p>The non compliance with noise requirements will cause noise disturbance to the workers and citizens of the Municipality of Dolneni</p>	<p>Local/within the Municipality of Dolneni</p> <p>Long term</p> <p>/major</p>	<p>Perform the procedure of homologation of the vehicle at the Faculty of Mechanical Science</p> <ul style="list-style-type: none"> The technical specifications provided by the vehicles supplier should be checked according to standards, general and specific safety requirements, and all fitted devices like rear protection devices, warning light, speed limitation device, braking, and anti-blocking system, electrical and hydraulic system, etc. Noise emissions to be lower than 102 dB (A) measured according to the requirements of EU Directive 2000/14/EC; Check the Statement of conformity Perform the annual approval test at the authorized compliance body issuing the registration card for the vehicles, trucks, and machines 	<ul style="list-style-type: none"> Contractor –Bidder Director of the CSE Dolneni Municipal staff
Project activity: Regular operation of the vehicles			

MSIP

MUNICIPAL SERVICES IMPROVEMENT PROJECT

<p>Improper or lack of regular maintenance could increase the environmental and occupational safety risks and health risks to all citizens due to the following:</p> <p>a) low fuel efficiency, b) higher emissions of GHGs and other pollutants (CO, HC, PM, and NOx) c) increase in noise level d) water and soil pollution as a result of possible oil leakages</p>	<p>Local/within the Municipality of Dolneni</p> <p>Long term/ major</p>	<p>Regular maintenance and repair of the new vehicles, machines and trucks and delivery of the spare parts on time by the professional service company</p> <ul style="list-style-type: none"> - Implementation of the Occupational Health & Safety measures for prevention of COVID -19 for the PCE workers/ municipal staff and local population - Signing a contract with the service company for regular maintenance, replacement of spare parts, preventive lubricant oil changes, checks on electronic and hydraulic systems, etc. - Forbidden replacement of motor and hydraulic oil at the parking site to avoid the oil and pollution of waters and soil - Perform regular annual approval test during the annual registration of the vehicle - The CSE “Dolneni” should prepare the fuel consumption and CO2 emissions data report on an annual base - The Report should contain at least the type and amount of diesel and gasoline fuel consumption, the CO2 emissions, the total length of the routes passed and working hours, the distance routes among the local settlements and all settlements covered with public hygiene activities 	<ul style="list-style-type: none"> • Contractor –Bidder • Director of the CSE Dolneni • Municipal staff
---	--	---	--

B. ENVIRONMENTAL MONITORING PLAN

MSIP

MUNICIPAL SERVICES IMPROVEMENT PROJECT

What Parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored (frequency of measurement)?	Why is the parameter to be monitored?	Responsibility	
					Delivery and put into operation of the vehicles	Operation of the vehicles
Project activity: Procurement and Delivery of basic equipment for the maintenance of public hygiene: vehicles for cleaning canals and roads						
The environmental and safety protection measures applied before put the vehicles into operation Prevention measures for COVID-19 are in place	On the parking site of the CSE Dolneni Availability of OH&S Plan including measures for COVID-19 prevention	Check the fuel quantity, lubrication oil quantity and breaking and steering system at the spot Test running successfully done Visual check of the implementation of prescribed COVID-19 prevention measures	Immediately after arriving of the vehicle in Dolneni	To prevent health and safety risks – mechanical broken and injuries	Supplier Director of the CSE Municipal appointee	
EU Stage IIIa technical specifications Noise level specification of the vehicles Lights, electronic and hydraulic system, braking and anti- blocking system and tires	At the homologation site (Homologation attest) The approval test site at the authorized body for annual registration (Registration card of the vehicles)	Review the technical specifications of the vehicles Mechanical and electronic checks	At the beginning of the running phase Before put into operation (running)	To minimize the adverse environmental and health impacts	Supplier Director of the CSE Dolneni	
Standard technical operational parameters of this kind of vehicle (protective steering, brakes, fuel consumption)	Pre-registration inspection at the authorized body for annual registration	Monitoring of the technical specifications Approval test Report showing that the vehicles are in compliance with safety requirements, environmental requirements related to noise, exhaust emissions and fitted devices	Annually	To ensure safety running of the vehicles and minimization of the environmental and health impacts		Director of the CSE with the technical team
Announcement of the frequency and start-up of vehicle's running and collection	Through the public announcement via social media and announcement table in the municipality building of Dolneni	Visual/audio check	Before start-up of running the vehicle's	To increase the public awareness about the new waste management practice and waste collection frequency		Director of the CSE with technical team Municipal appointee
Project activity: Running of the vehicles						

MSIP

MUNICIPAL SERVICES IMPROVEMENT PROJECT

What Parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored (frequency of measurement)?	Why is the parameter to be monitored?	Responsibility	
					Delivery and put into operation of the vehicles	Operation of the vehicles
Skill of driver/s on modern driving techniques and some improved performances of the new vehicle	At the Dolneni sites	Training records kept Review of the training records	Before official startup of running	To improve the driving techniques and to be familiar with vehicles characteristics and compression system		Director of the CSE with technical team Municipal appointee
Good maintenance practice and repair performed by professional staff	At the service company	Review of reports from the service company	Periodically (six months min.)	To ensure minimization of the environmental and occupational safety risks through high fuel efficiency and decrease of emissions of GHGs and other pollutants (CO, HC, PM and NOx)		Director of the CSE with technical team Municipal appointee
Trend of fuel consumption, annual amount of cleaned canals and roads	At CSE Dolneni site	Annual Report of the CSE	On annual basis reporting in front of the Management board and Municipality Council	To monitor the regular maintenance and to calculate the carbon footprint of the communal enterprise		Director of the CSE with technical team Municipal appointee
Fulfilled Annual Report for CO2 emissions, containing milage and working hours data, as well as CO2 calculations	Local self-government administration	Review of documentation – Working hours evidence Lists	After the realization, the task of cleaning	To improve public cleanliness in accordance with national requirements		Director of the CSE with technical team Municipal appointee

IV. TECHNICAL SOLUTIONS

1. General description of the project

This project assumes the purchasing of two vehicles for the municipality of Dolneni for the maintenance of public hygiene. The vehicles that should be purchased are:

1. Combine digger for the trench
2. Amini trench digger with rubber bands

2. Technical specifications

The vehicles that are foreseen to be purchased have the following technical specifications:

- **Combined digger for the trench characteristics :**
 - *4 cylinder engine*
 - *diesel fuel*
 - *water cooling*
 - *power min.70kv*
 - *exhaust emissions min.EUSTAGE 3A*
 - *Maximum torque min.400 Nm*
 - *4VD drive*
 - *Speed min.4front + 4rear*
 - *Clip hydraulic pump*
 - *Hydraulic pump flow min.130l / min.*
 - *Operating pressure min.240 bar.*
 - *Hydraulic installation*

 - *Machine weight min.8000kg-max.10000kg*
 - *Unloading height min.2600mm*
 - *Capacity of front bucket (load) min. 1m3*
 - *Rear telescopic arm*
 - *Digging depth min.5500mm*
 - *Maximum horizontal reach with a telescopic arm min.7000mm*
 - *Capacity of the rear basket min.0,15m3*

 - *Cabin ROPS and FOPS*
 - *Air conditioner*
 - *Depreciation seat*
 - *Rotating light*
 - *Built-in front and rear working lights min 8*
 - *ISO9001*
 - *ISO14001*
 - *ISO45001*

- **Amini trench digger with rubber bands characteristics:**
 - *Engine type min.3 cylinders*

- *Water cooling*
- *Power min. 11kv @2200rpm*
- *Hydraulic pump min. 15 l / min*
- *Working pressure min. 150-180 bar*
- *Mine excavation force min. 9 KN*
- *exhaust emissions min. EUSTAGE 3A*
- *Rubber tapes*
- *Width of lanes min. 180mm*
- *Height of the lanes min. 300mm*
- *Length of tracks (pigeons) min. 1100mm to max. 1400mm*
- *Minimum operating width. 800mm to max. 1100mm*
- *Dimension of the basket min. 300mm*
- *Width of blade for flattening min. 850 mm - max. 950 mm*
- *Maximum unloading height min. 1800mm*
- *Working weight min. 900 kg - max 1050 kg*
- *Working lights*
- *ISO9001*
- *ISO14001*
- *ISO45001*

3. Conclusions and recommendations

The project was selected at a public debate and is considered to be a priority of the municipality and the majority of citizens. All interested parties were informed, motivated, and support the realization of the project. The project does not discriminate among locations, ethnicities, gender groups, etc. because all the inhabitants are the beneficiaries. The project will positively contribute to the health of citizens by providing a clean living environment and will improve the image of the municipality as a tourist destination. The financial situation of the municipality and the CSE were examined and there are no high risks for loan repayment. The municipal and CSE staff have extensive experience in project management and procurement of 2 vehicles is within the capacity of this team. The project will definitely improve the efficiency of the CSE through optimization of spending: instead of growing outsourcing costs, the CSE will be able to provide the requested services with its own staff and mechanization. Manual work will be replaced with mechanical equipment. The municipality plans to procure these vehicles that are presently outsourced, with the only exception of a special vehicle for cleaning of streets – so far such services were provided manually.

The municipality plans to procure these vehicles that are presently outsourced – so far public services were provided manually.

As a result, access to services will be easier and the time of response to defects or other needs – shorter. Having said that, we recommend the implementation of the project.

IV. Financial data

Estimated value of the project is equal to MKD 4.845.000,00 (EUR 78.780) including VAT. Grant funds available to the Municipality amounts to MKD 4.845.158,00 and will fully cover the project costs. Since the total value of the project does not exceed the grant amount (MKD 4.845.158,00) the municipal co-financing would not be needed.

The project envisages procurement of communal machinery for maintaining the public hygiene and clean-up activities on streets, canals, and riverbeds i.e. **1 (one) Combine digger for the trench and 1 (one) Mini trench digger with with rubber.**

The breakdown of project costs as well as total value of the investment are presented in the following table:

Table 1 Project cost

	Amount	VAT	Total amount	Share
Combined digger for the trench	3.544.068	637.932	4.182.000	86,31%
Mini trench digger with rubber bands	561.865	101.135	663.000	13,69%
Amount in MKD	4.105.933	739.067	4.845.000	100%
Amount in EUR (exchange rate 61.5)	66.763,14	12.017,35	78.780,49	

Source: Project budget

It is assumed that all procedures for procurement and delivery of machinery will be completed within 3 months, which means that all the above investments will be made by the end of 2020.

By implementation of this project, the quality of life in the selected three most deprived settlements (Vrance, Strovija and Rilevo) will be significantly improved as a result of the regularly and timely provided public hygiene services by the municipal communal enterprise.

Currently, the Municipality at the beginning of each year announces a tender for outsourcing services for maintaining the local streets and roads, due to the fact that municipal communal enterprise does not possess appropriate machinery to provide this type of services. For this purpose, the Municipality spends 10,000-15,000 euros yearly from its own budget, while the cleaning of roads is not realized with the desired quality and frequency. Moreover, the road maintenance service is mainly provided in the bigger and more populated settlements while the poorest and less attractive settlements struggle for it.

Therefore, the municipality intends, within this project, to procure the new communal machinery which will be handed over to the municipal communal enterprise "Dolneni" from Dolneni for further use and maintenance. The enterprise will maintain and operate with this machinery within its available technical, financial, and human capacities.

In general, the new machinery will contribute to a better quality of life and well-being of residents in the settlements of Vranche, Strovija and Rilevo. The locals will have smooth and easy access to their agricultural fields and farms, the illegal landfills will be removed quickly and efficiently, people would have much safer roads and overall cleaner environment. Additionally, the investment in communal machinery will reduce the municipal cost of renting

this type of service and indirectly will decrease the household costs for fuel and repairs and maintenance of vehicles.

Prepared by,

**Finance
and Budget**

Sonja Gjorgjioska

Municipality

**of Dolneni
Mayor**

Dzemil Qamili