



Republic of Macedonia

Municipality Mavrovo - Rostushe

Project Appraisal Document

“Reconstruction of two local roads in the
Municipality Mavrovo - Rostushe”

World Bank

Municipal Services Improvement Project

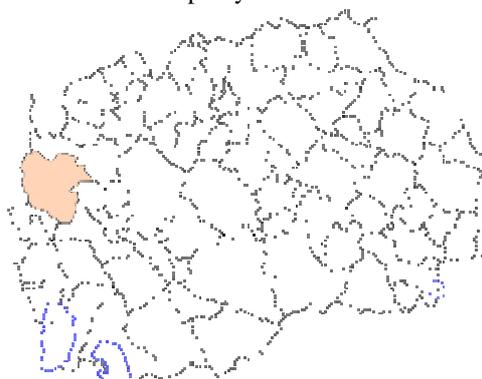


1. PROJECT DESCRIPTION

1.1 General Information on the Municipality of Mavrovo - Rostushe

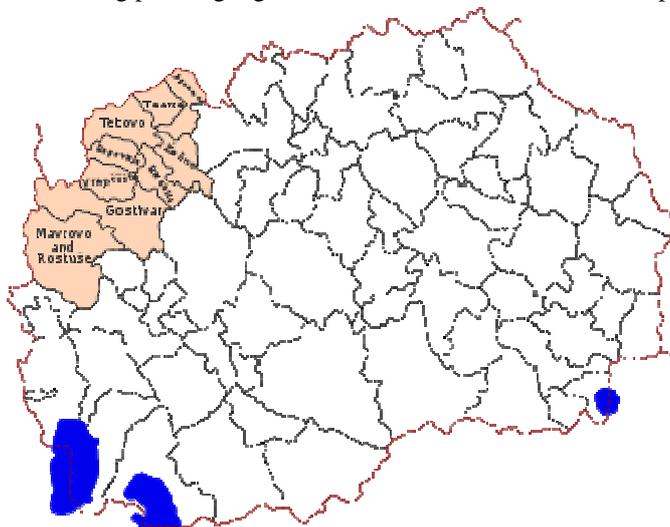
The Municipality of Mavrovo - Rostushe is one of nine constituent municipalities of the Polog planning region of the Republic of Macedonia. The Municipality is situated on the north-western part of the Republic of Macedonia, between 41°41" latitude and 20°41" and 9°18" longitude (picture 1), spreading on an area of 856km² on an average altitude of around 1,159m.

Picture 1. Municipality of Mavrovo - Rostushe



Source: State Statistical Office

Picture 2. Polog planning region with its eleven constituent municipalities



Note:* 1. **Mavrovo - Rostushe, 2. Gostivar, 3. Tetovo, 4. Tearce, 5. Bogovinje, 6. Brvenica, 7. Vrapciste, 8. Zelino and 9. Jegunovce.

Source: Centre for development of the Polog planning region

The border line with the Republic of Albania is on the western part of the Municipality of Mavrovo - Rostushe, the borderline with the Municipality of Gostivar is on the northern part, with the Municipality of Debar is on the south-western part, the borderline with the Municipality of Drugovo is on the south-eastern part, while the borderline with the Municipality

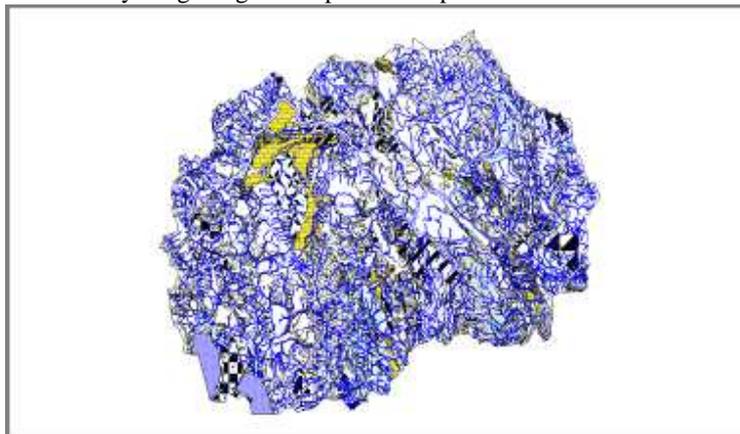


of Zajas is on the eastern part. The municipality is considered largely rural municipality comprising 42 local communities (rural villages): Adzievci, Belicica, Bibaj, Bituse, Bogdevo, Boletin, Cerovo, Duf, Galicnik, Grekaj, Jance, Kicinica, Krakornica, Lazaropole, Leunovo, Mavrovi Anovi, Mavrovo, Nicpur, Nikiforovo, Nistrovo, Niviste, Novo Selo, Orkjushe, Prisojnica, Ribnica, Rosoki, Rostushe (where the municipal seat is found), Selce, Sence, Skudrinje, Sretkovo, Susica, Tanuse, Trebiste, Tresonce, Velebrdo, Viduse, Volkovija, Vrben, Vrbjani, Zirovnica and Zuznje.

This Project that is subject of this Appraisal is intended to be implemented in the local communities of Zirovnica and Velebrdo which are also considered the largest rural villages in the Municipality of Mavrovo - Rostushe.

It is worth mentioning that around 85.4% of the territory of the Municipality of Mavrovo - Rostushe is part of the largest national park of the Republic of Macedonia, i.e. the national park of Mavrovo (spreading on an area of 731 km²). The Municipality's location on the mountains of Bistra and Korab (the highest in the Republic of Macedonia) and the Lake Mavrovo have helped it grow into a leading year-round tourist centre. In addition, the Municipality of Mavrovo - Rostushe is considered the most popular ski-center in the Republic of Macedonia.

Picture 3. Hydro-geological map of the Republic of Macedonia 1:200.000



Source: Civil Engineering Institute – “Macedonia”, Geotechnical department, Skopje 2010

The average annual minimum temperature is -7°C , while the average annual maximum temperature is 21°C , which classifies the area as relatively cold. The area of the Municipality of Mavrovo - Rostushe is considered as highly mountainous with lowland terrain only along the river beds of the ‘Radika’ and ‘Mala reka’ rivers. Thus, the area is characterised by long and snowy winters and short and relatively fresh summers. The number of rainy days per year is 146 on average. In addition, the average quantity of rainfalls is 85mm, which are unevenly distributed throughout the year. The months that are classified as the rainiest are November, December, January, February and March with an average of 51% of the average annual amount, while July and August are considered the least rainy months with an average of around 10% of the average annual amount of rainfalls. The snowfalls happen from October to May. Annually, there are around 120 days on average under snow.



1.2 Demographic profile of the Municipality of Mavrovo - Rostushe

According to the revised 2005 Census, the total number of inhabitants is 8,618 with a natural growth rate of 2.3% for the year of 2011. The total number of households is 1,969, while the average number of households' members is 4.38. Additionally, the total number of dwellings is 4,842. There are 186km of local roads, 4 post offices and 7 primary health protection centres. Additionally, there is one high school and 4 primary schools where 636 children at the age of 6-14 attend. As regards economy, there are 158 active enterprises according to the latest State Statistical Office data. The rate of unemployment is extremely high of 61.6%, while the activity rate is 27.9%. The women activity rate is 22.1%. The main macroeconomic indicators of the Municipality of Mavrovo - Rostushe are provided in Table 1.

Table 1. Main macroeconomic indicators of the Municipality of Mavrovo - Rostushe*

Demography	Municipality of Mavrovo - Rostushe	Polog planning region	Republic of Macedonia
Total Population	8,618	310,853	2,022,547
Rate of natural increase (per mil)	2.3%	3.7%	1.6%
Total number of households	1,969	69,091	506,203
Average number of households members	4.38	4.4	3.6
Total number of dwellings	4,842	78,544	697,529
Percentage of dwellings that are connected to the public water supply system	78.9	n.a	85.5
Percentage of dwellings are connected to the sewerage system	54.9	n.a	59.8
Percentage of dwellings that are connected to the central heating	0.3	n.a	8
Infrastructure			
Local roads(km)	186	1,351	9,300
Number of locations in primary health protection	7	n.a	n.a
Number of Post offices	4	n.a	n.a
Education			
Regular primary schools in school year 2010/2011	4	145	990
Children at age 6-14 that attend school	636	32,517	204,439
Population literacy at age 10 and more	6,967	245,088	1,693,044
Economy			
Number of business subjects – active (as of 31.12.2011)	158	7,100	75,497
GDP per capita (US\$)**	n.a.	1,980	4,328
Fixed capital investment (Denar million)**	n.a.	6,518	82,966
Employment			
Employment rate (Percentage of employed in working-age population – age 15-64)	38.3	30.0	38.9
Activity rate	27.9	43.9	56.8
Unemployment rate (percentage of unemployed from the labour force)	61.6	31.8	31.4

Source: State Statistical Office, Revised Census Data 2005, Municipality of Mavrovo - Rostushe.

*Note: last available data

** Note: the data is for the Polog planning region which constitute of the 9 municipalities of Mavrovo - Rostushe, Gostivar, Tetovo, Tearce, Bogovinje, Brvenica, Vrapciste, Zelino and Jegunovce.

The following table represents the age distribution in the total population. The analysis of data shows that the age groups are mainly distributed in the age groups of 10 - 49.



Table 2. Age repartition

Repartition	Municipality of Mavrovo - Rostushe		Polog planning region		Republic of Macedonia	
	Number	Percent	Number	Percent	Number	Percent
0 - 4	595	6.9	21,647	7.1	122,757	6.1
5 - 9	794	9.2	27,397	9.0	143,184	7.1
10 - 14	905	10.5	30,165	9.9	160,339	7.9
15 - 19	853	9.9	28,455	9.4	165,422	8.2
20 - 24	721	8.4	26,001	8.5	161,945	8.0
25 - 29	663	7.7	24,490	8.1	153,461	7.6
30 - 34	627	7.3	24,262	8.0	148,281	7.3
35 - 39	639	7.4	23,793	7.8	149,837	7.4
40 - 44	664	7.7	21,167	7.0	146,902	7.3
45 - 49	487	5.7	17,250	5.7	142,688	7.1
50 - 54	316	3.7	13,954	4.6	127,760	6.3
55 - 59	276	3.2	10,945	3.6	95,234	4.7
60 - 64	294	3.4	10,608	3.5	89,822	4.4
65 - 69	308	3.6	9,574	3.1	84,443	4.2
70 - 74	237	2.8	7,215	2.4	61,969	3.1
75 - 79	151	1.8	4,065	1.3	40,384	2.0
80 - 84	57	0.7	1,842	0.6	18,975	0.9
Above 85	21	0.2	931	0.3	7,941	0.4
Age unknown	10	0.1	364	0.1	1,203	0.1
Total:	8,618	100	304,125	100	2,022,547	100

Source: State Statistical Office, Revised Census Data 2005

The following table represents the gender repartition in the total population. As it can be seen, 49.8% of the total population in the Municipality are male, while 50.1% are female, which means that there is nearly equal representation of male and female in the total population.

Table 3. Gender repartition

	Municipality of Mavrovo - Rostushe		Polog planning region		Republic of Macedonia	
	Male	Female	Male	Female	Male	Female
Number	4,295	4,323	152,707	151,418	1,015,377	1,007,170
%	49.8	50.1	50.2	49.8	50.2	49.8

Source: State Statistical Office, Revised Census Data 2005

Table 4 represents the urban repartition in the total population. The data infer that the Municipality is largely rural, i.e. around 78.8% of the total population is settled in the rural area of the Municipality of Mavrovo – Rostushe.

Table 4. Urban repartition

Repartition	Municipality of Mavrovo - Rostushe		Republic of Macedonia	
	Number	Percent	Number	Percent
Urban	1,827	21.2	1,169,032	57.8
Rural	6,791	78.8	853,515	42.2
Total	8,618	100	2,022,547	100

Source: State Statistical Office and Municipality of Mavrovo - Rostushe



In relation to the ethnic affiliation of the citizens, the prevailing population in the Municipality of Mavrovo - Rostushe are Macedonians, representing 50.5% of the total population, followed by the Turkish community, representing 31.1% of the municipality's total population (Table 5). It is important to note that each of the ethnicities speaks its own languages in the informal communication. The officially used language in this Municipality however, is the Macedonian with its Cyrillic alphabet.

Table 5. Population repartition

Repartition	Municipality of Mavrovo - Rostushe		Polog planning region		Republic of Macedonia	
	Number	Percent	Number	Percent	Number	Percent
Macedonians	4,349	50.5	56,079	18.4	1,297,981	64
Serbs	6	0.1	977	0.3	35,939	2
Roma	10	0.1	4,717	1.6	53,879	3
Vlachs	0	0.0	30	0.01	9,695	0
Turks	2,680	31.1	17,394	5.7	77,959	4
Bosniacs	31	0.4	251	0.1	17,018	1
Albanians	1,483	17.2	222,679	73.2	509,083	25
Others	59	0.7	1,998	0.7	20,993	1
Total	8,618	100	304,125	100	2,022,547	100

Source: State Statistical Office, Revised Census Data 2005

According to the data available, the number of live births in the Municipality of Mavrovo - Rostushe is fluctuating around 88 on average over the last 5 years (Table 6).

Table 6. Live births number in Mavrovo - Rostushe

Total births		2007	2008	2009	2010	2011
Municipality of Mavrovo - Rostushe	Male	52	36	37	54	39
	Female	46	45	46	44	43
	Total	98	81	83	98	82
Polog planning region	Male	1,923	1,759	1,877	1,937	1,870
	Female	1,700	1,667	1,657	1,741	1,729
	Total	3,623	3,426	3,534	3,678	3,599
Republic of Macedonia	Male	11,772	11,826	12,340	12,631	11,752
	Female	10,916	11,119	11,344	11,665	11,018
	Total	22,688	22,945	23,684	24,296	22,770

Source: State Statistical Office

1.3 Economic profile of the Municipality of Mavrovo - Rostushe

According to the Central registry data, the number of newly registered enterprises is fluctuating around 20 on average over the last 6 years (Table 7).



Table 7. Newly registered enterprises (2006 – Q1 2012)

Year	Newly registered enterprises in the Municipality of Mavrovo - Rostushe
2006	15
2007	17
2008	21
2009	25
2010	32
2011	20
end of Q1 of 2012	9

Source: Central Registry of the Republic of Macedonia

Additionally, according to the SSO data, private enterprises are operating mainly in wholesale and retail trade, repair of vehicles, motorcycles and personal and household goods (43), followed by manufacturing (27), accommodation and food service activities (21), transport storage and communication (15), construction (11), agriculture, forestry and fishing (10) and human health and social work activities (10).

Table 8. Active business subjects by sectors (as of 31.12.2011)*

Active business subjects by sectors	number	in %
Agriculture, forestry and fishing	10	6.3
Activities related to real estate	1	0.6
Manufacturing	27	17.1
Water supply, sewerage, waste management and remediation activities	2	1.3
Construction	11	7.0
Wholesale and retail trade, repair of motor vehicles and motorcycles	43	27.2
Transportation and storage	15	9.5
Accommodation and food service activities	21	13.3
Information and communication	2	1.3
Professional, scientific and technical activities	2	1.3
Administrative and support service activities	3	1.9
Public administration and defence	1	0.6
Education	4	2.5
Human health and social work activities	10	6.3
Arts, entertainment and recreation	3	1.9
Other service activities	3	1.9
Total	158	100

Source: State Statistical Office *Note: last available data

When analysing the labour market, the available data show that 1,698 of the municipal population is considered as economically active, of which 652 are employed (83.6% male, 16.4% female), while 1,046 are unemployed. From the total number of the unemployed persons 74.3% are male, while 25.7% are female.



Table 9. Activity rates

		Economically active			Economically inactive	Total
		All	Employed	Unemployed		
Municipality of Mavrovo - Rostushe	Number	1,698	652	1,046	4,373	6,071
	Percent	27.9	38.4	61.6	72.1	100
Polog planning region	Number	70,954	35,543	35,411	145,959	216,913
	Percent	32.8	50.1	49.9	67.2	100
Republic of Macedonia	Number	743,676	460,544	283,132	833,325	1,577,001
	Percent	47	62	38	53	100

Source: State Statistical Office, Revised Census Data 2005

Finally, 4,373 persons are considered as economically inactive, where 35.4% are male, while 64.6% are female.

1.4 General description of the Project

In general, the project assumes reconstruction of two local roads in the Municipality of Mavrovo – Rostushe.

The technical design assumes reconstruction of the local road that connects the regional road R-409 with the local community of Zirovnica, as well as reconstruction of the local road that connects the local communities of Rostushe and Velebrdo. The total length of the local roads that are subject to this Appraisal is 1,890m, where the length of the local road that connects the regional road R-409 with the local community (rural village) of Zirovnica is estimated at 1,288m while the length of the local road that connects the local communities of Rostushe and Velebrdo is estimated at 602m. The width of the carriageway is set at 4m. According to the conditions on the terrain, the width of the side shoulders is set at 0.75m on both sides of the local roads.

The direct beneficiaries of the implementation of this Project are the local communities of Zirovnica and Velebrdo whereby, according to the data available, 3,750 inhabitants live, which is 43.5% of the total population of the Municipality of Mavrovo - Rostushe. Taking into account that the local roads that are subject to this Appraisal are considered the main entry routes in the local communities of Zirovnica and Velebrdo, it can be inferred that all of the inhabitants will benefit from their reconstruction. It is worth mentioning that the local communities of Velebrdo and Zirovnica are considered the largest communities in the Municipality, where two of all of the four municipal primary schools are located. According to the information provided by the municipal administration, the pupils from the local communities of Vrbjani and Vidushe visit primary school in the local community of Zirovnica, thus inferring that the inhabitants of these two communities (1,250 in total) can be considered as indirect beneficiaries of the reconstruction of the local road that connects the regional road R-409 with the local community of Zirovnica. Similarly, the pupils from the local communities of Trebiste and Bitushe visit primary school in the local community of Velebrdo, thus inferring that the residents of these two local communities (1,850 in total) can too be considered as indirect beneficiaries from the reconstruction of the local road that connects the local communities of Velebrdo and Rostushe. In addition, the local road that connects the local communities of Velebrdo and Rostushe is the only local road that connects the local community of Trebishte with the local community of Rostushe (the seat of the Municipality of Mavrovo – Rostushe). In total, 6,850 inhabitants of the Municipality of Mavrovo – Rostushe will have direct or indirect benefit of the realization of this Project which is 79.4% of the total number of inhabitants in the Municipality of Mavrovo – Rostushe.



According to the information provided by the Municipality, the local roads that are subject to this Appraisal have been constructed during the 1980s and they are in a very poor condition (Picture 5 below). The infrastructure on these local roads has fallen into such disrepair that an extensive reconstruction is required, so as to extend their useful life. The main purpose of the proposed technical solution for these local roads is to provide for their long run improvement by maximizing the technical life of the surface so as to correspond to valid local road standards, thus meeting the needs of the local communities.

The objectives of the technical solution of the project are as follows:

- to provide traffic comfort, convenience and safety for the pedestrians and traffic by improving the surface on the roads and sidewalks, as well as their carrying characteristics;
- to ease traffic on the local roads, thus improving safety and reliability for pedestrians and goods movement;
- to satisfy various social, recreational and residential needs of the citizens in the local communities;
- to improve accessibility to tourist attractions and ensure better access to the tourism service points within the Municipality.

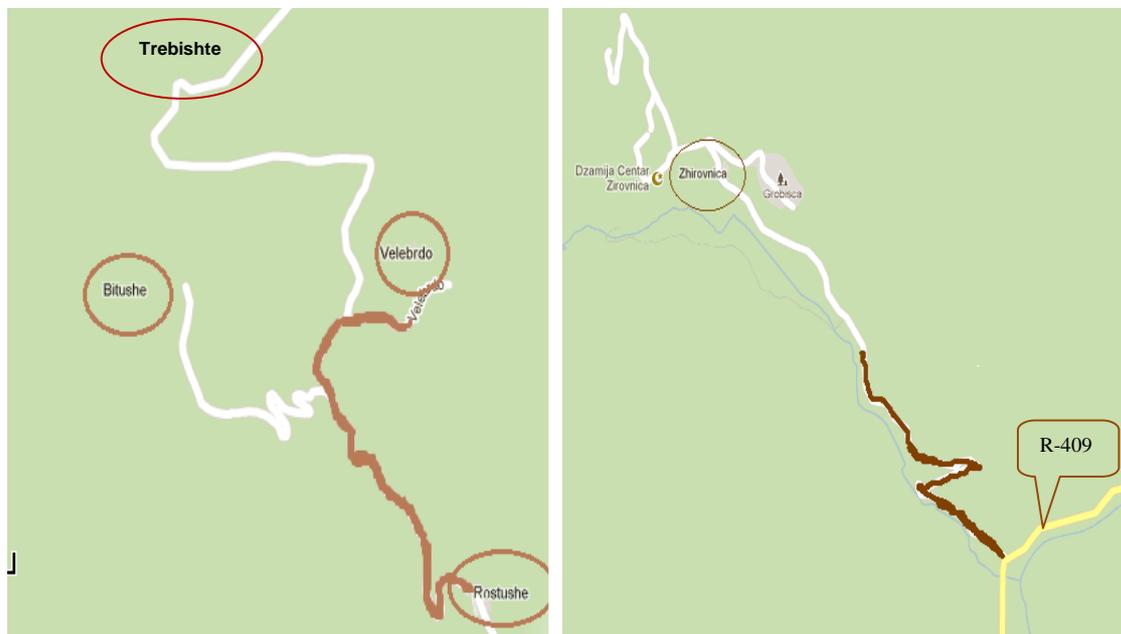
The benefits expected from the implementation of this Project are related to increasing the traffic safety and comfort, increasing the traffic capacity and communications, ensuring a feeling of security by pedestrians, enhancing the commercial activities, as well as extending the outdoor social and recreational activities for the residents living in the local communities of Zirovnica and Velebrdo. The present condition of the local roads causes frequent interruption of public transport services which ultimately results in fall of productivity. Additionally, the implementation of the project is expected to lead towards reduction of the municipal costs for constant repairs of the local roads. Once the Project is implemented, the Municipality will spend less money for repairs and reallocate them to other municipal services. The implementation of the Project is also expected to increase the property value for houses and other residential or commercial objects in the local communities of Zirovnica and Velebrdo, thus increasing the growth of revenues from property taxes.



Picture 4. The municipal area concerned with the Project

a. The local road that connects the local communities of Rostushe and Velebrdo

b. The local road that connects the regional road R-409 and the local community of Zirovnica



Source: Municipality of Mavrovo – Rostushe

*Note: the route of the local roads that is subject to reconstruction is presented in brown colour.



Picture 5. The present condition of the local roads subject to this Appraisal

a. The local road that connects the regional road R-409 with the local community of Zirovnica



Source: Field research, August 2012

e. The local road that connects the local communities of Rostushe and Velebrdo



Source: Field research, August 2012



1.5 Strategic Interest of the Municipality of Mavrovo - Rostushe to implement the Project

If implemented, the Project will contribute towards accomplishment of the strategic goals in the area of infrastructure of the Municipality of Mavrovo - Rostushe. The municipal administration recognizes the improvement of the existing network of local roads as its highest strategic priority in the area of improvement of the municipal infrastructure. The Mayor and the municipal administration strive to achieve full coverage of a transport, communal (utility) and electricity infrastructure throughout the municipal territory.

Taking into account that nearly 80% of the total population will benefit of the implementation of the Project, it can be inferred that the Project will undoubtedly contribute towards improvement of the quality of life and well-being of all of the citizens of the Municipality of Mavrovo - Rostushe.

The improvement of the transport and communal network can improve accessibility to tourist attractions and ensure better access to the tourism service points within the Municipality. Taking into account that tourism is recognized as a labour – intensive sector, the project is expected to lead towards increasing the tourist potential in the Municipality of Mavrovo – Rostushe, which is of a particular importance in tackling the extremely high rate of unemployment.

1.6 Knowledge and Experience of the Municipality of Mavrovo - Rostushe to implement the Project

The knowledge and experience needed for successful implementation of the Project are related to project management, technical knowledge and execution of procurement practices. The Municipality of Mavrovo - Rostushe, the competent authority in this Project, has participated in a wide variety of large construction or other type of projects with different investors, whereby the Municipality allocated the land and provided the investors with technical services, and gained in return new businesses on its territory or improved housing facilities, schooling facilities, wastewater networks and treatment. The Municipality has implemented several Projects for improving municipal services supported from the European Bank for Reconstruction and Development, USAID and others. It can be inferred that the Municipality is able to contribute with the necessary experience to large construction Projects such as the reconstruction and extension of the local road that connects the regional road R-409 with the local community of Zirovnica, as well as the reconstruction and extension of the local road that connects the local communities of Velebrdo and Rostushe, envisaged to be financed from the World Bank MSIP funds to the Government of the Republic of Macedonia.

1.7 Concluding remarks

The Project is in-line with the strategic priorities of the Municipality of Mavrovo - Rostushe and it will contribute towards achieving the vision of the municipal administration for providing full coverage of a transport, communal and electricity network throughout the municipal territory.

The relevance of the Project results from the fact that nearly 80% of the total population is influenced by negative implications of the inadequate surface of the local roads. The proposed technical solution is in-line with the existing standards and regulations for this kind of projects.



The knowledge and experience needed for successful implementation of the Project are related to Project management, technical knowledge and execution of procurement practices. Municipality of Mavrovo - Rostushe has implemented various similar Projects in the past, some of which in collaboration with international institutions, which implies that the Municipality is able to implement large construction Projects such as the reconstruction and extension of the local road that connects the regional road R-409 with the local community of Zirovnica, as well as the reconstruction and extension of the local road that connects the local communities of Velebrdo and Rostushe.



2 SOCIAL IMPACT

2.1 Methodology

The methodological approach was based upon the methodological concept of World Bank summarized as Five Entry Points, One Result. This concept requires exploration of five components - social diversity and gender, institutions, rules and behaviour, stakeholders, participation and social risk. The Assessment anticipated field research to get available information on interests and attitudes of stakeholders during the period of July-August 2012. Unfortunately, the time and resources constraint, did not admit application of all instruments for data collection such as survey, meetings with focus groups, thus the research is reduced to relevant secondary data from the Municipality of Mavrovo - Rostushe and face-to-face interviews with three officials (the Mayor, the President of the Council and a Junior Associate for Urban and Communal Utilities), who gave their opinions about the role and influence of various stakeholders in the process of decision making relevant to the Project, as well as the level of information, capacities and readiness of the citizens to support the Project.

Taking their delegation and duties into account, the above mentioned officials proved to be useful interpreters of the opinions of the citizens since being their representatives and having frequent meetings with them, they are very familiar with the needs, attitudes and opinions of the local population.

Nevertheless, the weakness of this approach lies in its indirectness. More precisely, the indirect way of getting information on this issue, plus possibility of subjective approach among some of the interviewees decreases the level of accuracy of the public opinion in this respect. However, the answers from the interviews are very indicative and give a very good insight in the local processes relevant to the Project.

2.2 Social diversity and gender

Like in the other Municipalities in the country, in the Municipality of Mavrovo - Rostushe, citizens are organized into various social groups based on their status prescribed at birth (ethnicity, gender, language, etc.). From the demographic data presented in Chapter 1, the following can be seen:

- The age groups are mainly distributed in the age of 10–49. The data show that this is the case both on the Polog Planning Region's level and on a country level as well;
- The live births are fluctuating around 88 on average over the last five years;
- There is nearly equal representation of male and female in the total population in the Municipality. The data show that this is the case both on the Polog Planning Region's level and on a country level as well;
- Most of the population lives in the rural area of the Municipality (78.8% of the total population in the Municipality is located in a rural area);
- The prevailing nationality in the Municipality of Mavrovo - Rostushe is the Macedonian, representing 50.5%, followed by the Turkish population which constitute 31.1% of the total population;



- Each of the ethnicities in the Municipality, speaks its own languages in the informal communication. The officially used language in the Municipality is Macedonian with its Cyrillic alphabet;
- 78.9% of the households are connected to the public water supply system, opposite to 85.5% on a country's level;
- 54.9% of the households live in dwellings connected to the public sewerage system, opposite to 59.8% on a country's level;
- 0.3% of the households live in dwellings which have central heating, opposite to 8% on a country's level;
- There are 158 active business subjects in the Municipality, opposite to 75,497 in the country;
- The activity rate in the Municipality is 27.9%, opposite to 32.8 in the Region and 47% in the country;
- The unemployment rate in the Municipality is extremely high of 61.6%, opposite to 31.8% in the region and 31.4% in the country.

Asked about the number of beneficiaries of the projects, the interviewees expressed their opinion that all of the citizens in the Municipality will be beneficiaries of the Project. However, the citizens who live in the local communities of Zirovnica and Velebrdo can be considered as direct beneficiaries of the Project. According to the data available, 3,750 inhabitants live in these local communities, which is 43.5% of the total population in the Municipality of Mavrovo - Rostushe. In addition, taking into account that the pupils from the local communities of Vrbjani and Vidushe visit primary school in the local community of Zirovnica, the citizens (1,250 in total) of these two local communities will also benefit from the realization of the Project. Likewise, the pupils from the local communities of Trebishte and Bitushe visit primary school in the local community of Velebrdo, thus inferring that the residents of these two local communities (1,850 in total) can be considered beneficiaries from the reconstruction and extension of the local road that connects the local communities of Velebrdo and Rostushe. It is also worth mentioning that the local road that connects the local communities of Velebrdo and Rostushe is the only local road that connects the local community of Trebishte with the local community of Rostushe (the seat of the Municipality of Mavrovo – Rostushe). This implies that additional 36% will have an indirect benefit of the implementation of the Project.

2.3 Institutions, rules and behaviour

According to the interviewees' opinions the selected contractor must provide guarantees for the realization of the Project. The Municipal Council might request information from the Mayor in reference to the Project's realization at any time. In addition, based on experience with other Projects and the overall existing local road network in the Municipality of Mavrovo - Rostushe, the municipal administration has the capacity to maintain the local roads after the implementation of the Project. In addition, the Municipality has an administration, which has experience to monitor the progress of the Project.



2.4 Stakeholders

There are several important stakeholders of the Project. The interviewees fully agree that the most influential participants in the process of decision making at the municipal level are the Mayor and the Municipal Council. In addition, potentially influential stakeholder in Mavrovo - Rostushe is the business sector. The nongovernmental organizations (NGOs hereinafter) are influential to some extent, but not as much as the former. Citizens, as an organized group of stakeholders, articulate their opinions directly to the Council and the Mayor, through the local communities and they are not very influential stakeholder in the municipal decision making, although their opinion is always taken into consideration.

The interviewees stated that the Project is supported by the Councillors representing different political parties in the Municipal Council, which means that a political consensus is achieved on this issue and that the Councillors are considering this Project as of a top priority of the Municipality of Mavrovo - Rostushe. In respect to the citizens, the opinion of most interviewees is that all of the citizens support or will support the Project, because it is in the general interest of municipal community.

Influential stakeholders are the Mayor and the Councillors representing different political parties. As implied earlier, this Project has been unanimously supported by the Councillors adding additional weight to its relevance.

The NGOs have some influence, but since this Project will promote improvement of the quality of life in the Municipality of Mavrovo - Rostushe, the NGOs are expected to be in favour of the Project.

The citizens in the local communities of Zirovnica, Velebrdo, Rostushe, Trebishte, Bitushe, Vrbjani and Vidushe have frequently submitted their complaints about the current situation of the local roads that are subject to this Appraisal, which again implies that the citizens are fully in favour of the Project. As elaborated earlier, since this Project is expected to influence the overall living standard in the Municipality, it is expected that the citizens will support the Project.

2.5 Participation

It is decided that the loan will be repaid from the municipal Budget in the following years. The answers of the interviewees were unanimous that there is no need for any kind of voluntary participation or financial contribution of the citizens.

2.6 Social risks

High social risks for carrying out the Project cannot be perceived. In the Municipality of Mavrovo - Rostushe, the Municipal Council consists of 11 Councillors from 4 political parties. Out of the total number of Councillors, 6 support the Mayor, 4 are in opposition while 1 is independent. In spite of their political orientation, the Councillors cannot endanger the realization of the Project because it is a part of the adopted Annual Program for Communal services of the Municipality of Mavrovo - Rostushe, which has been also adopted by the Council. As elaborated earlier, in spite of their political background the Councillors have already unanimously expressed their support for the Project and for raising a loan for its implementation



recognizing that its realization will undoubtedly lead towards improvement of the quality of life in the Municipality of Mavrovo - Rostushe.

Interviewees presented a wide range of priorities in many fields that are within the local government competencies. They identified: increasing the employment rate, the construction or reconstruction of communal facilities, construction of water supply and sewage network, increasing the local economic development, use of renewable energy sources, improvement of social aid and social protection to vulnerable groups, promotion of education and agriculture, etc. Without exception, all of the interviewees said that one of the highest priorities is improvement of the transportation network throughout the Municipality of Mavrovo - Rostushe, emphasizing the necessity of reconstruction and extension of the local roads that are subject of this Appraisal in particular.

Additionally, it was discussed in detail whether the citizens are fully informed of the intended reconstruction and extension of the local roads that are subject to this Appraisal and the ensuing financial repercussions on the Budget of the Municipality of Mavrovo - Rostushe. The interviewees believe that the citizens are fully informed in detail about the Project. Their arguments are based on the fact that this Project frequent complaints by the citizens of the local communities of Zirovnica, Velebrdo, Rostushe, Trebishte, Bitushe, Vrbjani and Vidushe about the current state of the local roads that are a subject of this Appraisal, which implies that the citizens are fully informed about the implementation of this project.

One very important question that was discussed is related to potential *“feeling of inequality among the citizens and possibility they could endanger the realization of the Project in order to get some personal or group benefits?”* The interviewees stated that it might happen that the realization of this Project causes a slight discontent among the population in other communities, simply because they will not be direct beneficiaries of the Project. However, taking into consideration that the citizens highlighted the improvement of the transportation network to contribute mostly to the improvement of the quality of life in the Municipality in general, they should be in favour of the Project. It is also important to state that the Municipality has the intention to improve the transportation network in all of the settlements. It solves the problems that were persistent for many years. Those who will be not covered by this Project, can expect that will be provided with such public good subsequently. With the implementation of this strategically important project, the municipality is sending a strong signal that plans to solve this issue on the whole municipal area. The interviewees unanimously expressed their opinion that any special technical or economic obstacles and difficulties in the maintenance of the Project could not be expected. They referred to both the implementation phase and the operation's and maintenance phase.

Since the local roads that are subject to this Appraisal are set on municipal (state) property, thus no expropriation issue is expected to be raised.

2.7 Other considerations

The reconstruction of the local roads that are subject to this Appraisal is expected to improve the overall community living in the Municipality of Mavrovo - Rostushe. The implementation of this Project is expected to create savings in the item of the municipal budget for the local road maintenance on the long-term basis. The implementation of the project is also expected to



improve local public finances in a sense that once the local roads are being reconstructed, the Municipality will spend less money for repairs and reallocate them to other municipal services.

It is worth mentioning that the Municipality of Mavrovo - Rostushe is considered one of the leading year-round tourist centre in the north-western part of the Republic of Macedonia with a high potential of rural and alternative (eco) tourism. This is mostly due to its location on the mountains of Bistra and Korab (the highest in the Republic of Macedonia) and the Lake Mavrovo which is considered one of the top tourist destinations in the country. Taking into account the significance of tourism for the economic development of the Municipality as well as the decline in the unemployment, the development of the rural tourism is considered one of the strategic pillars for local economic development of the Municipality of Mavrovo - Rostushe. To that end, the municipal administration considers the improvement of the transport infrastructure for access to the Municipality and to what it can offer to the tourists as of an utmost priority which would contribute towards increasing the number of tourists. Taking this into account, the Project would definitely ensure better access to what the Municipality offers, thus contributing towards increasing the number of tourists and ultimately towards higher economic development and tackling the extremely high rate of unemployment.

2.8 Resettlement issues

This Project is not a subject to resettlement issues because the project involves reconstruction and extension of already existing local roads located on a municipal territory.

2.9 Concluding remarks

The Project is expected to be socially successful for the following reasons:

- the Project is relevant because it is considered both as cost-efficient and cost-effective over a long run and also useful for the improvement of the community living in the Municipality of Mavrovo - Rostushe;
- the Project is of a highest municipal priority for the public administration and for citizens;
- the stakeholders are very motivated by the realization of the Project;
- the Project does not bear very high financial burden in comparison to the Budget and the population is not placed into a position to contribute financially, so there is no cause for conflict on this point;
- the Project will ensure better access to the touristic attractions of the Municipality, thus contributing towards increasing the number of tourists and ultimately towards higher economic development and tackling the extremely high rate of unemployment;
- the Project is not a subject to resettlement issues;
- no expropriation issue is expected to be raised during the implementation of the Project.



3 ENVIRONMENTAL IMPACT

The Project aim is to reconstruct the local roads in the Municipality of Mavrovo – Rostushe, in particularly: a) the local road that connects the local community of Zirovnica with the regional road R-409 in total length of 1,288m and b) the local road that connects the local communities of Velebrdo and Rostushe in total length of 602m.

Both roads are constructed during the 1980s, the existing routes are in very poor condition with a lot of humps, holes, cracks and bumps, so the reconstruction is necessary to be done. The total length of both roads need to be reconstructed is 1890 m and the width of the asphalt pavement is proposed to be 4.0 m with side shoulders of 0.75m

The two roads are located in the Western part of Republic of Macedonia within the borders of the National Park “Mavrovo“(Figure 1). The Figure 1 presents also the border of the National Park (the green colour and red colour which at the same time present the border between AL-MK).

Due to the unique geomorphology, forestry (25 forest ecosystems), high diversity of habitat types, species diversity including 115 endemic species – 58 local/national endemic and 57 Balkan endemic species), plenty of vegetation communities (41), flora and fauna diversity and hydrology, the protected area was classified with status of protection Category II (National Park). The proclamation of National Park “Mavrovo“ was done in 1949 and it was re-proclaimed in 1952 when the area was extended to 72.204 ha.

According the Law on nature protection (Official Gazette No. 67/04, 14/06, 84/07) and the Management Plan for the National Park “Mavrovo “prepared for the period 2012-2021 there are three protection zones (protection regime) refer to the activities allowed: a) Zone with strict protection – 8.390 ha, b) Zone with active management – 23.248 ha and c) Zone with sustainable use - 40.778 ha. These three zones are presented within the Figure 2 where the red colour present the zone with strict protection, the green is a zone for sustainable use and the yellow is a zone with active management.

The location of the roads that should be reconstructed belongs to the protection zone for sustainable use that is a part of the National Park with no high value of protection, where there are infrastructural objects (including roads), settlements, agricultural land, cultural monuments and buildings. The location of the roads could be found within the green zone of protection on Figure 2.

According the national legislation (Law on environment – Official Gazette No. 53/05, 81/05, 24/07, 159/08, 83/09, 124/10, 51/11, 123/12) and secondary legislation, the Project for reconstruction of the local roads belongs to the Annex I Chapter X – Infrastructural projects, Part 2: Projects for reconstruction of local roads. For these types of projects the EIA Report should be prepared.

The EIA Report was prepared in the middle of September 2012 by the Company “CeProSard” and it was submitted by the Municipality of Mavrovo-Rostushe to the Ministry of Environment and Physical Planning. The Decision for adoption was issued by the Director of the Environmental Administration on 25.9.2012.



Due to the fact that the reconstruction project is in the borders of the National Park, the opinions were collected by the relevant institutions managing the water resources and national park and the final Decision was issued by the Environmental Administration. With this Decision the investor is obliged to implement all proposed mitigation measures within the EIA Report and additional if it is necessary during the reconstruction activities implementation.

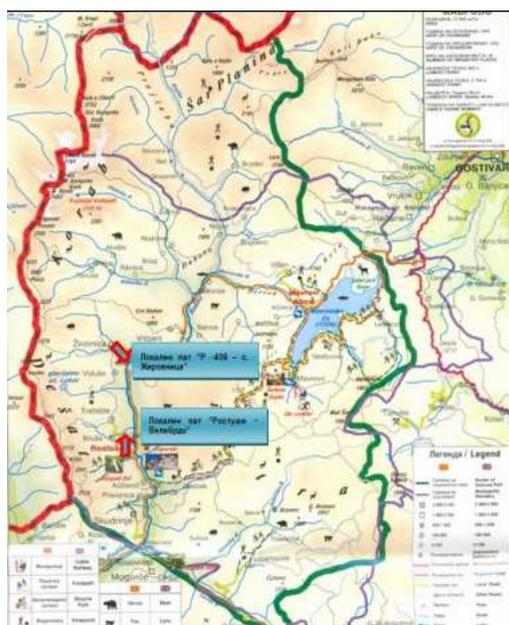


Figure 1. Location of the roads within the National Park “Mavrovo”

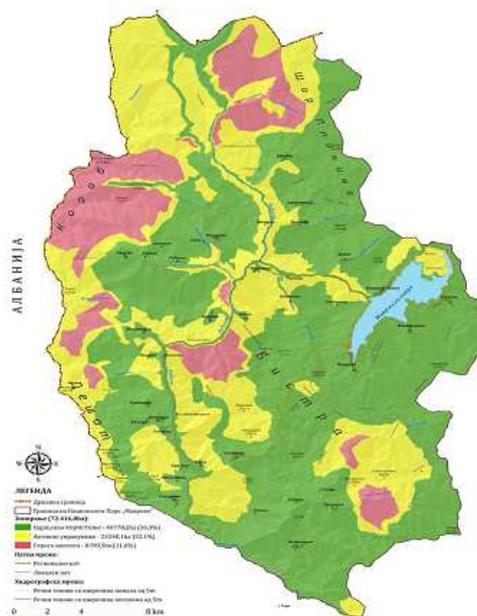


Figure 2. Protection Zones within the National Park “Mavrovo”

The only adverse environmental impacts of the Project are expected in the reconstruction phase due to the following activities: a) patching of holes, cracks, bumps and cavity repairs; b) scratching the old asphalt layer; c) asphalt layer- BNHS16 (bituminous asphalt bearing layer) with a thickness of 7cm; d) addition of road base crushed stone on the side shoulders with a thickness of 7cm. The generation of noise and vibration, generation of different waste streams, degradation of vegetation communities and fragmentation of some habitats, emissions into air and waters are the most important and feasible to be happened environmental impacts.

The Main Project calculates the quantities of old asphalt (Code for waste stream 17 03 02) that will be generated: a) 90t for the road Zirovnica – R 409 and 50t for the road Rostushe – Velebrdo that will be collected, transported by JKP “Mavrovo”. The quantity of new asphalt for filling the road holes and asphalt layer is proposed to be in total 90t for the longer and 50t for the shorter roads.

The both roads are located within the borders of National Park “Mavrovo” and according the Law on noise protection (Official Gazette No. 79/07, 124/10, 47/11) the National Parks belong to the area with first degree of noise protection and the max. allowed noise level should be 40 dB for night and 50 dB for evening and night (presented in the following table):



Area defined by the degree of noise protection	Noise level (dB)		
	L _d	L _e	L _n
Area of first degree (hospitals, national parks , schools)	50	50	40

Taking into account that both roads are already in operation more than 40 years and both are with small length and they are located within the protection zone of sustainable use, the all potential environmental impacts are expected to be small, with low intensity, local significance and on short-term basis - during the reconstruction period only.

The measures that should be apply in order to protect, avoid, mitigate the adverse impacts of the reconstruction of both roads are provided within the following Environmental Mitigation Plan. The main responsibility for implementation of the mitigation measures lay to the Sub-contractor and Supervisor (nominated by the Municipality) on daily basis. Some of the measures should be applied by the municipality staff (announcement of the traffic regime, recording the waste quantities), Public Utility Enterprise "Mavrovo" dealing with waste management and staff of the Public Institution "National Park Mavrovo", Mavrovi Anovi (main responsibility for management with the National Park). The Monitoring Plan presents the frequency of monitoring and main responsibilities among all involved during the Project implementation.



A. ENVIRONMENTAL MITIGATION PLAN

Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
Marking out the route for reconstruction of the two roads in the Municipality Mavrovo-Rostuse	Possible adverse social and health impacts to the population, drivers and workers due to: <ul style="list-style-type: none"> - Lack of ensured safety measures at the start of reconstruction works - Injury passing near by the reconstruction sites - Not compliance with strict occupational health and safety standards and work procedure 	Regional /Local/within the municipality/short term during the reconstruction/ major	<ul style="list-style-type: none"> - Preparation of the Traffic Management Plan together with the municipal staff; - Ensure the appropriate marking out the construction site /section by section; - Marking out the construction material near the road; - Warning tapes and signage need to be provided; - Forbidden of entrance of unemployed persons within the warning tapes; - Community and Worker's OH&S measures should be applied (first aid, protective clothes for the workers, appropriate machines and tools) - Machines should be handled only by experienced and trained personnel, thus reducing the risk of accidents - Constant presence of firefighting devices should be ensured in case of fire or other damage; - Flammable liquids may be placed and kept exclusively in vessels constructed for that purpose; - Pouring of flammable liquids and gasses may be done only by trained persons and by using devices specially designed for that purpose; - Larger quantities of flammable liquids should not be kept on the site along the alignments; - All workers must be familiar with the fire hazards and fire protection measures and must be trained to handle fire extinguishers, hydrants and other devices used for extinguishing fires - Devices, equipment and fire extinguishers should be always functional, so in case of need they could be used rapidly and efficiently; - Fire extinguishers should not be used for other purpose except for extinguishing fires, for training and for other possible accidents. They should be labeled with guidelines for their use and handling; - Provision of portable toilets on the construction site; 	<ul style="list-style-type: none"> • Contractor – Bidder • Supervisor
			<ul style="list-style-type: none"> - Provide the information via local radio/TV station/local newspaper about the reconstruction activities – start and finish of work for each day and location of activities, duration of work and traffic access on other roads; 	Municipality staff
Reconstruction of the roads	Possible impact on soil and water and cause the erosion of the land as a result of	Regional /Local/within the municipality/short	<ul style="list-style-type: none"> - Proper positioning of the water drainage system on the construction site - The land needs to be stabilized (the slab) in order to prevent erosion of land; this should be done by implementing proposed project solutions (curbs, adopted 	<ul style="list-style-type: none"> • Contractor – Bidder • Supervisor



Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
	<ul style="list-style-type: none"> - Construction activities and large water level – water flow of the rivers and streams - Loss of upper soil layer due to erosion as a result of construction activities and high water level - water flow of rivers and streams - Damage of the soil structure by movement of vehicles and storing construction and reconstruction materials in the vicinity of the construction and reconstruction site 	term during the reconstruction/major	<p>longitudinal and crosswise profiles).</p> <ul style="list-style-type: none"> - Reduction / elimination of waste lubricants and oils in the waste water which will appear after rains or other precipitation - Application of remediation measures as replanting the soil under construction activities with native species - In case of soil contamination by leakage or by possible vehicle breakdown and similar events, the procedure for removing that piece of land should be implemented and non-contaminated land should be applied in agreement with the Law on Environment - To avoid storing water polluting substances (for example fuels, or substances for maintaining machines) - To avoid filling in vehicles and machines with fuel on the construction site; - Control and safety service should be established in order to control the vehicles and find possible defects which could cause uncontrolled leakage of oil, oil derivate, lubricants and other chemicals - The cleaning and washing of construction machines should be performed on locations dedicated to that purpose and in a way not to cause runoffs into ground water; - All roads and asphalt surfaces should be maintained clean in order to prevent runoffs from them into the ground water and other water flows (local road Zirovnica - R 409), during rain or in another natural way; - Not to keep fuel, oil or lubricants along the alignment, especially not in the vicinity of draining structures 	
	<p>Air quality The reconstruction activities will initiate gases emissions of dust-suspended particulates Traffic congestion will be caused as well causing changes in existing traffic circulation</p> <p>Noise level</p>	Regional /Local/within the municipality/short term during the reconstruction/major	<ul style="list-style-type: none"> - Reconstruction site, transportation routes and materials handling sites should be water-sprayed on dry and windy days; - Construction materials should be stored in appropriate places covered to minimize dust; - Vehicle loads likely to emit dust need to be covered; - Usage of protective masks for the workers if the dust seems to be appeared; - Restriction of the vehicle speed within the construction location; - Pouring of flammable liquids and gasses may be done only by trained persons and by using devices specially designed for that purpose; - Larger quantities of flammable liquids should not be kept on the site along the alignments 	<ul style="list-style-type: none"> • Contractor – Bidder • Supervisor



Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
			<ul style="list-style-type: none"> - The noise limit for zone I – National parks, hospitals, schools could be 40 dB during the night and 50 dB during the day and evening - The vehicles that are excessively noisy due to poor engine adjustment, damage to noise amelioration equipment shall not be operated until corrective measures have been taken - The location of noisy equipment should be chosen as far as possible away from sensitive receptors (houses, workplaces, schools and hospitals); - The workers should be provided with ear protective devices (ear muffs and/or ear plugs); 	<ul style="list-style-type: none"> •
	<p>Waste management Possible adverse environmental impact and health effects could be occurred as a result of generation of the different waste streams The inappropriate waste management</p> <p>Disturbance of the biodiversity/habitats in the National Park Mavrovo</p>	<p>Local/major/Especially important because the location is in National Park Mavrovo</p>	<ul style="list-style-type: none"> - Identification of the different waste types at the reconstruction site (soil, sand, asphalt, pieces of asphalt, road surfacing, bottles, food, etc...) - Classification of waste according the national List of Waste (Official Gazette no.100/05); - The main waste would be classified under the Waste Chapter 17 “Construction and demolition wastes (including excavated soil from contaminated sites)” with the waste code 17 01 – Waste from concrete, bricks, 17 05 04 – Excavated soil, 17 09 04 – Mixed waste from construction site; - Small amount of solid municipal waste could be found (food, beverages), as well as packaging waste (paper, bottles, glass, etc..) - The construction waste should be promptly removed from the site, should be re-used if it is possible; - Possible hazardous waste (motor oils, vehicle fuels) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose the hazardous waste. - Cooperation with the administration of National Park Mavrovo during the project implementation - Before starting the operational activities, contracts should be concluded with authorized waste managers for taking over the liquid waste (oils, lubricants, petrol oil etc.); - To start the preservation and planting of native species of vegetation in order to increase the capacity for maintaining water and reducing the impact on ground water from possible runoffs during the operational phase in the local roads. 	<ul style="list-style-type: none"> • Municipality staff • Contractor – Bidder • Supervisor



Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
			<ul style="list-style-type: none">- Temporary use or destruction of neighboring land should be avoided. Every use of land which is not included in the project must be done with prior approval of the owner and should have other necessary types of permits;- It is obligatory once again to plant all destroyed and disturbed places along subject roads after they are being reconstructed, by using local autochthonous species- Planting of the area around the location (along the alignment), as a bio-technical measure will provide hygienic conditions for its content and function	
			<ul style="list-style-type: none">- Transportation and final disposal of the inert and communal waste by the Communal Utility Enterprise “JKP Mavrovo”;- The removed asphalt and waste materials immediately should be taken over by an authorized waste manager for communal waste (Public Communal Enterprise Mavrovo) and should not be stored along the alignment, and special attention should be paid waste to be on safe distance from surface water (local road Zirovnica - R 409);	<ul style="list-style-type: none">• JKP “Mavrovo”
			<ul style="list-style-type: none">- Fulfillment of the Annual Report for non-hazardous waste management by the Mayor and reporting to the Ministry of Environment and Physical Planning;	<ul style="list-style-type: none">• Municipality staff (Communal Inspector/Environmental Inspector

B. Monitoring plan

What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	Why is the parameter to be monitored?	When is the parameter to be monitored (frequency of measurement)?	Cost	Responsibility
Air pollution (dust)	On the alignments to be reconstructed	Visual monitoring	Legal requirements	Regularly during the project activities, the condition will have to be established by field visits during the implementation of activities	Insignificant	Municipality of Mavrovo and Rostushe (Environmental/Communal Inspector) JKP "Mavrovo"
Disposal of solid waste	To locations under the competence of authorized waste managers	Visual monitoring	Legal requirements for waste management in the National Park - sustainable management zone	Regularly during the project activities, the condition will have to be established by field visits, and its disposal immediately after generation	Included in the construction costs	
Damage to soil structure by the traffic related to construction and reconstruction activities	On the alignments under reconstruction and on the place where vehicles and machines turn around	Visual monitoring	Legal requirements	Regularly during the project activities, the condition will have to be established by field visits, recuperation when the reconstruction is over	Included in the construction costs	
Erosion caused by the implementation of construction activities; destabilization of the ground should not be permitted	On the alignments under reconstruction	Visual monitoring	Good construction practices	Continuously during the construction and operational activities	Included in the construction costs	
Runoff of waste water to surface streams and pollution of ground water	On the alignments under reconstruction and construction	Visual monitoring	Legal requirements	Daily monitoring / removal immediately after it is generated	Included in the construction costs	

What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	Why is the parameter to be monitored?	When is the parameter to be monitored (frequency of measurement)?	Cost	Responsibility
Protection of habitats	On the alignments under reconstruction and construction	Visual monitoring	Legal requirements	Regular monitoring during the project activities through weekly field visits / implementing protection measures before the initiation of the operational activities	Insignificant / Included in the construction costs	Municipality of Mavrovo and Rostushe
Noise and vibrations	Along the reconstruction and construction routs and on different distances from them	Noise and vibrations	Legal requirements	Regularly during the project activities, field visits	500 EUR	
Creation of traffic jams	On the alignments under reconstruction and on the place where vehicles and machines turn around	Visual monitoring	Good construction practices	Regular monitoring during the project activities, establishing the conditions through field visits / acting before the initiation of the operational activities	Low, due to low frequency of vehicles on the proposed alignments / included in the construction costs	
Pollution of clean water, health risks and risks of polluting the drinking water	At different distances from the alignments under reconstruction and construction	Chemical analysis in cases of accidents or leakages of polluting materials to the water	Legal requirements	After the construction and reconstruction activities are finished	500 EUR	
Regular maintenance of the roads should be done for safety driving						Public Enterprise for road maintenance / Municipality of Mavrovo and Rostushe

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