



**MUNICIPALITY
OF GRAČNICA**
2012/2017

...for my city!

Local Environmental Action Plan



Local Environmental Action Plan

2012/2017



Municipality of GRAČANICA

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Regional Environmental Centre

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What is REC?

The Regional Environmental Centre (REC) is a neutral, non-advocacy, not-for-profit international organization which assists in solving the environmental problems of the Central and Eastern European (CEE) Region.

This Centre fulfils this mission by encouraging co-operation among non-governmental organisations, governments, businesses and other environmental stakeholders, by supporting the free exchange of information and by promoting public participation in environmental decision-making.

The REC was established in 1990 by the United States, the European Commission and Hungary.

Today, the REC is legally based on a charter signed by the governments of 29 countries and the European Commission, and on an International Agreement with the Government of Hungary. The REC has its headquarters in Szentendre, Hungary, and local offices in each of its 17 beneficiary countries.



Foreword by the Mayor of Gračanica Municipality

Since the beginning of its functioning in January 2010, after the establishment of bodies, departments and services, the Municipality of Gračanica has taken an interest in committing itself to protection of environment on its territory, in addition to the overall organizational activities and exercising its responsibilities.

As a process of reviewing the situation and environmental protection of local community through concrete activities, Local Environmental Action Plan is an important part of the implementation of sustainable community development policy.

Recognizing the needs of the community, not only through benefits but also through limitations, prompts local government to respect environmental protection rights while using local resources.

In order to develop local strategies for environmental protection and promote understanding and solving of local environmental problems, Gračanica Municipality has started to draft a local environmental action plan.

With the full involvement of management and employees, the Municipality of Gračanica worked on the development of this strategic document that identifies environmental issues and propose concrete actions to resolve them.

By applying functional mechanisms for practical implementation of policies in the service of all citizens, the Municipality of Gračanica will ensure that local community, through economic development and environmental conservation, take an active part in the construction of modern, urban, economically developed municipality with a rich tradition and preserved cultural heritage.

Bojan Stojanović
Mayor of Gračanica Municipality

Participants in drafting LEAP documents

LEAP Coordinators:

1. Nebojša Ivić - REC coordinator
2. Nevenka Rikalo - Municipal Coordinator

Coordinating Body

1. Igor Aritonović - Deputy Mayor
2. Goran Lazić - President of MA
3. Slaviša Ničić - Financial Manager
4. Nada Brkljač - Director of Urbanism, Planning and Environmental Protection

Working Group

1. Nebojša Milovanović - Director of Administration
2. Bojan Todorović - Director of Health
3. Igor Rašić - Environmental Protection Officer
4. Mirjana Stanković - Finance Analyst
5. Aleksandar Jocić - Officer
6. Siniša Šubarić - Officer for European Integration
7. Zoran Mandić - Land Registry Officer - Surveyor
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9. Saša Zdravković - Officer of the Public Service, Agriculture, Forestry and Rural Development
10. Miloš Ničić - Officer for Public Service, Agriculture, Forestry and Rural Development
11. Sonja Nešić - Social Worker of CSW
12. Nebojša Perić - Adviser
13. Ivan Nikolić - Civil Society
14. Tijana Danić - Administrative Assistant
15. Aleksandra Đekić - Chief of Cabinet
16. Dejan Todorović - Procurement
17. Miloš Maksimović - Head of Fleet
18. Ivana Lazić - Treasurer
19. Svetlana Đokić - Assistant
20. Jelena Đorđević - Information Service
21. Agron Batali - Director of Inspectorate

Technical Team-Leaders of areas:

- | | |
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| 2. Nataša D. Veličković | - Architect of Urbanism |
| 3. Sonja Artinović | - Economic Development |
| 4. Miloš Maksimović | - Centre for Social Work and Health Care |
| 5. Verica Ristić | - Education for Youth and Sports |
| 6. Boban Todorović | - Protection of Monuments |

LEAP - Legal Basis

The legal basis for initiation of drafting LEAP in Gračanica is regulated by the Kosovo Law on Environmental Protection (Law No. 03/L-025, published in the Official Gazette of the Republic of Kosovo, No. 50, Year IV, 6 April 2009), Article 24, paragraph 1 and 2, which stipulates that municipalities adopt action plans and programs for the protection of the environment.

Municipal decisions on development of LEAP:

Municipal decisions on development of LEAP:



The legal basis for LEAP documents:

- Law on Spatial Planning No. 2003/14-2020;
- Law on Environmental Protection No. 03/L-025;
- Law on Nature Protection No. 03/L-233;
- The Waste Law No. 02/L-30;
- Kosovo Water Law No. 2004/24;
- Law on Cultural Heritage No. 02/L-88;
- Law on Air Protection No. 2004/30;
- Law on Construction No. 2004/15;
- Law on Roads No. 2003/11;
- Law on Agricultural Land No. 02/L-26;
- Law on Environmental Strategic Assessment No. 03/L-015;
- Law on Special Protected Areas No. 03/L-039;
- Law on Environmental Impact Assessment No. 3/L-214.

Part 1

INTRODUCTION

LEAP/ The Municipality of Gračanica

Local Environmental Action Plans a strategic document that unites interests of communities, different values and perspectives that is the framework of the development plan for sustainable development, which needs to recognize and identify not only values but also the environmental problems. Transmission of hazardous gases in the ecosystem is a consequence of the long-term environmental degradation and disrespect for the rational use of natural resources. Frequent bad weather and natural disasters are the result of human carelessness as the main factor. Humans can give higher contribution to the conservation and protection of the environment and many things could be changed through education and awareness of the entire population of our community, identification of CHALLENGES and implementation of measures to protect the environment in which we live. LEAP can determine the short, medium and long-term priority projects of environmental sustainability.

1. METHODOLOGY

Methodology for the development of LEAP Document has begun with the signing of Memorandum of Understanding between the Municipality of Gračanica and REC, after which the Municipal Assembly has made decision to develop the document as the legal basis. Then, in accordance with mayor's decision, Coordinating Body has been established, as well as a working group composed of representatives of all relevant stakeholders, ranging from citizens to representatives of the municipal government and civil society. As foreseen by the Agreement and Project Document, REC has organized training for members of the Working Group as a two-day workshop in Durrës, Albania. Afterwards, WG has commenced developing vision of the municipality and evaluating the overall situation of the environment in Gračanica Municipality. The Working Group has established thematic groups for better observation and assessment of the environmental situation. For creation of municipality profile, various sources of information from official documents have been used, such as the Municipal Development Plan, the Statistical Office of Kosovo, Kosovo Hydro Meteorological Institute and the like. It should be noted that the MUSPP Project, being implemented by UN-Habitat, has also helped a lot as a source of data through their field officer who was a member of the Working Group as well.

After the first draft of LEAP Document, REC has organized a national workshop with all municipal coordinators and REC coordinators where all municipalities presented their documents and exchanged experiences in order to develop more qualitative and more comprehensive document on assessment determine priority fields and identify priority projects for solving environmental problems. The workshop was attended by the national experts, engaged by Project to assist in professional aspect of drafting the document, mainly in assessing the situation and action plan for each municipality depending on the priority areas. Experts have studied each LEAP document separately, and then proposed action plan and prepared a report, which was translated and sent to all coordinators for the adoption and inclusion of their suggestions into final draft of LEAP.

After that, in cooperation with the members of the working group, coordinators prepared an action plan and the final version of the document that was sent to the parliamentary procedure for adoption. LEAP document was previously reviewed by the Parliamentary Finance Committee as well, because of the financial implications of an action plan, and then during adoption stage.

The main objectives of this methodology are:

- To assist and facilitate the process of selecting and prioritizing the environmental issues and the needs of local community.
- To support capacity building and encourage local population to treat environmental issues in effective and sustainable manner, in order to be included in this LEAP Document.
- To establish local community ownership over the process of LEAP development and implementation of LEAP projects and action plans.

This process is also related to sustainable development, public participation in relation to the promotion of civil society and the general process of democratization. In this way, it contributes to the transparency, efficiency and quality of decision-making process in the environmental field.

Sustainable development is based on principles such as:

- Ecological validity
- Social acceptability
- Economic viability

Special attention has been given to the inclusion of a large number of interested parties, groups and individuals in all stages during the development of the document, formation of the coordinating body, working group and technical team, whose duties were to manage the LEAP process, identify priorities, develop technical reports, etc. This has been done by establishing regular coordination between all relevant stakeholders in local community such as:

- Local authorities and decision makers
- Local government officers
- Local media
- Non-governmental organizations
- Interested individuals

Recent experiences indicate the need for more intensive cooperation with relevant institutions/organizations at the national, regional and local level. The role of local self-government, as a link between various stakeholders and authority that provides general support, was crucial for a successful launch and operation of the process. An interactive work has been one of the most important forms of project teams functioning, and themes and goals of the workshops and working group meetings were determined accordingly.

The municipality of Gračanica and REC Priština signed a Memorandum on Implementation of the Project for the Development of Local Environmental Action Plan in order to improve lives of citizens, environmental protection and sustainable development in Kosovo.

Within this project, the Municipality will actively participate in the preparation of LEAP, as well as the implementation of priority problems, and REC will provide all equipment needed for the project at the premises of the Municipality.

REC has guaranteed a transparent process of drafting LEAP Document, which in every stage was available for scrutiny by public and competent professionals, according to the identified priorities.

REC has conducted field survey where citizens were directly involved in the selection of priority environmental issues.

For communication between the citizens and the LEAP team, a LEAP office operated in municipal premises and it has been available to interested individuals on a daily basis. The most important stages of drafting the document included the intense involvement of the media, which through a series of articles published at www.opstina-Gračanica.com helped that information about relevant details of the process reach to the majority of the population of the local community.

VISION

*“Environmentally cleaner,
economically sustainable, with more
developed economy and tourism
and preserved cultural heritage,
a place where everyone can
enjoy a healthy environment.”*

Part 2

2. THE MUNICIPALITY PROFILE

2.1. General Conditions

Kosovo is located in the central part of the Balkan Peninsula in South Eastern Europe. It covers an area of 10,887 square kilometres, with an average altitude of about 800 meters, but with distinct altitude changes in terrain and morphology. The lowest parts of Kosovo are located at an altitude of 270 meters (White Drim) on the border with Albania, and the highest point is Đeravica with an altitude of 2,656 meters. Kosovo borders Macedonia, Serbia, Montenegro and Albania

2.2. Background

Today's archaeological finds reveal that area of Gračanica Municipality was inhabited in early historic times. Ulpiana, as a city built in the late I and early II century after Christ, was named after the Roman Emperor (Ulpus Traianus). It existed until 518, when a massive earthquake destroyed this magnificent city, which was rebuilt during the rule of Byzantine Emperor Justinian, after whom it was called Iustiniana Secunda. Ulpiana is a magnificent proof of the existence of such a city under the supreme authority of the Roman, which had its self-government, the constitution and laws and its people possessed Roman citizenship rights, even the right to vote. There is no doubt that Ulpiana, as self-autonomous city of the Roman Empire, had grown into an economic and cultural centre of the time due to very favourable geographic position and close proximity to major deposits of lead, zinc and precious metals.

In the third century Ulpiana flourished and was at the zenith of its size, beauty and glory, and was rightly called URBS SPLENDISSIMA- GLORIOUS CITY.

The first mention of Gračanica name occurs in a letter of Pope Benedict IX to Bar Archbishop Marin in 1303. The letter mentions Gračanica parish. Name of the said parish certainly comes from the name of Gračanica, in which immediate vicinity were colonies of Sasa and Janjevo miners. Kosovo was the Byzantine border area until the ninth century. Afterwards, Gračanica became a part of medieval Serbia, in the immediate vicinity of Ulpiana.

The earliest record of the name Gračanica appears in the Gračanica Charter of King Milutin. Gračanica Monastery is one of the most beautiful monuments of medieval culture from the XIV

century. It was built by King Milutin between 1315 and 1321, as the last of the forty-two churches that he had built during his reign. Like other monasteries of King Milutin, Gračanica was and still is a symbol of pride of its people, keeping it alive in difficult times.

In 2004/6 it was placed on UNESCO World Heritage List.

2.3. Establishment of New Municipality

Gračanica Municipality occupies the central part of Kosovo where it is bordered to the north by the Municipality of Priština, to the south by the Municipality of Lipljan and to the west by the municipality of Kosovo Polje.

Municipality of Gračanica was established under the Law on Administrative Boundaries of Municipalities and officially Municipality of Gračanica exists from 29 December 2009.

In accordance with the Law on Administrative Boundaries of Municipalities, this municipality consists of the following cadastral zones:

- from the Municipality of Priština: Gračanica (as residents of the municipality), Novi Badovac, part of Stari Badovac, Laplje Selo, Preoce, Sušica, Kišnica and part of Čaglavica;
- From the Municipality of Kosovo Polje: Batuse and Ugljare;
- From the Municipality of Lipljan: Gornja Gušterica, Dobrotin, Donja Gušterica, Lepine, Livadje, Radevo, Skulanevo and Suvi Do;

The territory of Gračanica Municipality covers an area of 121.10 km².



Fig. 1. Regional position of Gračanica Municipality.



Figure 2. Cadastral zones of Gračanica Municipality

The Municipality of Gračanica has about 25,000 residents with multi-ethnic structure, of which 85.7% are Serbs, 3.7% Albanians and 10.6% of the Roma, Ashkali, Egyptians and others. The formation of a new municipality has given citizens who live in this area great opportunity to use services and improve living standards.

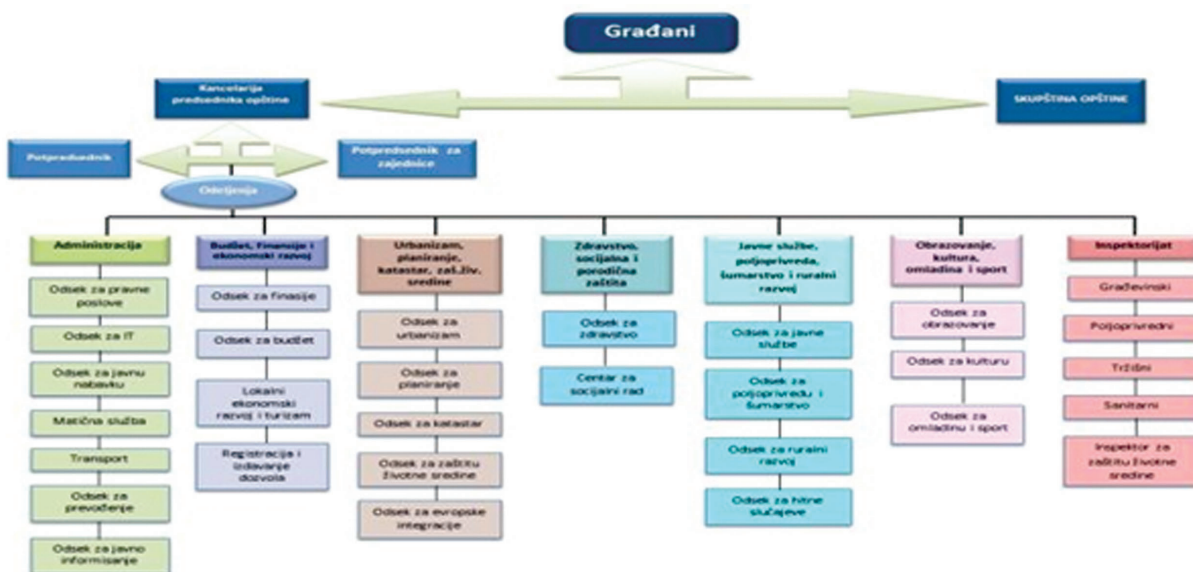
Source: web site www.opštine

Municipal Assembly of Gračanica is the highest representative body of the municipality, which is directly elected by the citizens of the municipality in accordance with the Law on Local Elections. Gračanica municipality has legislative- representative and executive bodies directly elected in local elections.

Municipal Assembly is the highest legislative- representative body and executive body, which is

directly elected in local elections. Municipal Assembly adopts decisions, regulations, rules and other documents required for implementation of municipal authority.

Structure of Municipal Bodies



2.4. Geography

Gračanica administrative centre is located in Kosovo, eight miles southeast of Priština, on the eastern rim of the Kosovo valley, where slightly rise Veletin hillside and steeper slopes of Steževac on the Gračanica River. The municipality is situated at an altitude of 570 meters and is part of tectonic basins that descended during the tertiary period. Veletin and Sharp Peak are extinct volcano cones where the ore-bearing rocks lie. The Municipality of Gračanica is crossed by three main roads connecting it with Serbia, Macedonia and Albania. Gračanica Lake is located in the vicinity of Gračanica. This lake supplies drinking water to a number of places in central Kosovo, including Priština, Gračanica and surrounding settlements.

2.5. Climate

Kosovo has continental climate characterized by warm summers and cold winters, and influenced by the Adriatic -Mediterranean and the alpine climate. The average annual rainfall is 596 mm per sqm. The average annual temperature is 10 °C (average low temperature is -17 °C, but can even reach -26 °C). Summers are very hot, with average temperature of 23 °C, and the highest can even reach 39 °C. The main natural factors influencing climate in Kosovo are: relief, water, soil and vegetation.

December and January are the coldest months, while July and August are normally the hottest months. October and December are months with the highest rainfall. In the period between November and March snowfall is expected throughout Kosovo. Snow in the valleys reaches a height generally between 10 and 30 cm.

2.5.1. Temperatures and sunny days

Average annual temperature in Gračanica is 17.8 °C. The hottest months are July and August, with average temperature of 27-31 °C. The coldest month is January, with an average temperature of -2.6 to -7.5 °C. The highest air temperature is 32.5 °C in July, while the lowest is -14.0 °C in January. The average annual insolation is 1938.15 hours of sunshine. August is the month with the most sun hours, while December is characterized by the shortest time of insolation. Average monthly insolation is 63.8 hours, while the daily insolation is 5.31 hours of sunshine

Table 1. Average daily global solar radiation on a horizontal surface in kWh/m

| Mesto | Mesec | | | | | | | | | | | | Ukupno godišnje | Srednje godišnje |
|----------|-------|------|------|------|------|------|------|------|------|------|------|------|-----------------|------------------|
| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | | |
| Pec | 1,85 | 2,95 | 3,70 | 4,85 | 5,95 | 6,15 | 6,75 | 6,15 | 4,90 | 3,65 | 2,25 | 1,60 | 1546,25 | 4,24 |
| Priština | 1,85 | 2,90 | 3,70 | 5,25 | 6,30 | 6,60 | 6,95 | 6,30 | 5,10 | 3,35 | 1,90 | 1,60 | 1578,25 | 4,32 |

Source: <http://www.jeffersoninst.org/sites/default/files/Fotonaponska%20energija.pdf>

| | | | |
|-------------------|-------------------|-------------------|-----------------|
| Pm /12*365 | Pm /12= Di | Di*365= Pg | 63,80 ss |
| Di | 63,8/ 12 | | 5,31 ss |
| Pg | | 5,31*365 | 1938,15 ss |

Table 2. Source: WG -LEAP Gračanica



2.5.2. Humidity, cloudiness, rainfalls and winds

The highest average humidity ranges from 86.0% to 89.0% in December and January, while the lowest is in April and May, and ranges from 63.2% to 68.4%. Cloudiness is the highest in January (7.3/10), and the lowest in August (3.8/10). The Municipality of Gračanica has an average of 57.3 mm/hour of rainfall per year. December is the month with the highest rainfall of 111.1 mm, while July has the lowest rainfall of 14.9 mm/hour. January is the month with the most snow (17.0 days), while April is the month with least snow (1.0 days). In Gračanica usually blow northwest (NW-248), northern (N-142) and western (SW-147) winds, while east winds (E-22) rarely blow.

2.6. CULTURAL GOODS AND HERITAGE

I. SIGNATURE

The sign in the picture is the most abundant floral element in fresco painting borders in the Monastery of Gračanica and represents the application of branching tree. The municipality is depicted by rich cultural heritage, especially Gračanica Monastery, archaeological site Ulpiana, many Orthodox churches in the villages and cultural and historical monuments.



Monastery of Gračanica (1321god.)

Pic. 4: St. Petka Church Laplje Selo

Pic. 5: St. Knez Lazar Church D. Gušterica

Pic. 6: St. Dimitrie Church Sušica



Picture 7 and 8: St. Dimitrie Temple –Dobrotin and Holly Sunday Church -Batuse



Picture 9, 10 and 11: Ulpiana –archaeological site of the Roman and early Byzantine culture



Picture 12 and 13: Oak in Dobrotin and Livadje

 Picture 14. Old House of Gračanica
(90/100 year old)

2.7. URBANISM AND SETTLEMENTS

Being one of the biggest central parts of Kosovo, in recent years Gračanica accepted a large number of displaced Serbs, Albanians, Roma, Bosniaks and Gorani. Widening the area of Gračanica resulted in creation of new streets that are not equipped with supporting infrastructure (water, sewage, lighting), which is one of the reasons of chaotic urbanization. With the establishment of Municipality and the implementation of municipal urban regulating plans, the Capital Investment Action Plan Projects are developed.

2.7.1. Gračanica Municipality Land Use

Table 3 Area of municipal and social land

| | Površina /m ² | |
|-----------------------------|--------------------------|-----------------|
| | Opštinsko | Društveno |
| KZ Opštine Gračanica | | |
| KZ Sušica | 94097 | 1252442 |
| KZ L.Selo | 427061 | 2733765 |
| KZ Batuse | 164145 | 100629 |
| KZ Livađe | 112579 | 5490 |
| KZ Lepina | 42144 | 303188 |
| KZ Suvi Do | 266171 | 1369376 |
| KZ Preoce | 195473 | 913581 |
| KZ Radevo | 82083 | 858319 |
| KZ Skulanevo | 142911 | 534489 |
| KZ Ugljare | 140396 | 220034 |
| KZ Dobrotin | 54738 | 881487 |
| KZ G.Gušterica | 811879 | 110918 |
| KZ D.Gušterica | 1361287 | 577684 |
| KZ Gračanica | 3275542 | 749083 |
| Ukupno | 7170506 | 10610485 |

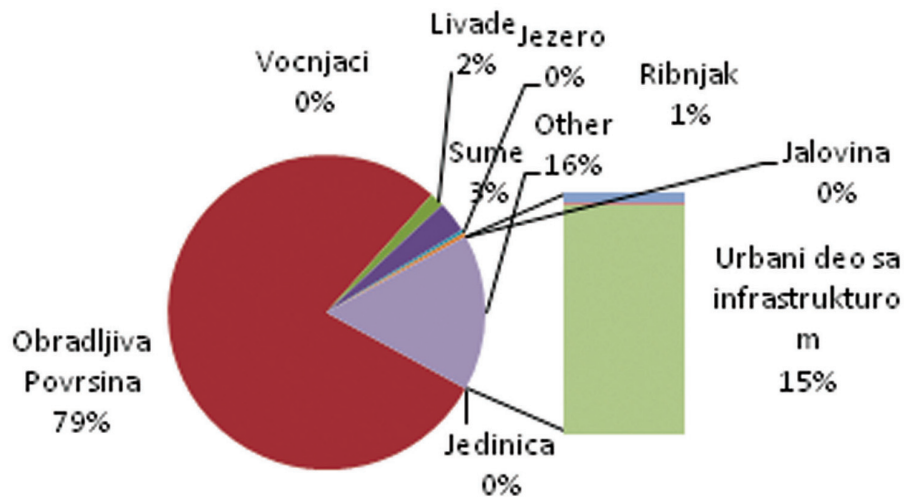
| No | Unit | Ha | % | km ² |
|----|--------------------------------|--------------|------------|-----------------|
| 1 | Arable Land | 9159.64 | 78.60 | 95.196 |
| 2 | Meadows | 178.11 | 1.47 | 1.7811 |
| 3 | Forests | 389.79 | 3.22 | 3.8979 |
| 4 | Lakes | 41.44 | 0.34 | 0.4144 |
| 5 | Tailings | 48.35 | 0.40 | 0.4835 |
| 6 | Fish Pond | 69.82 | 0.57 | 0.6982 |
| 7 | Orchards | 34.25 | 0.28 | 0.3425 |
| 8 | Urban part with infrastructure | 1828.6 | 15.00 | 18.286 |
| | Total | 12110 | 100 | 121.0996 |
| | | 12110 | 99.88 | 121.10 |

Table 4 Surface area in ha, %, km

2.7.2. Land as an Environmental Medium

Based on allocation of land by activity, in the Municipality of Gračanica we have four environmental media presented in the diagram as follows:

- Medium of arable land area 79%
- Medium of urban part with infrastructure 15%
- Medium of flora and fauna biodiversity 5%
- Medium of water lakes, rivers and natural springs 1%



2.7.3. Settlements

The Municipality of Gračanica includes 17 villages with the municipal centre Gračanica. The Municipality of Gračanica is a rural municipality consisting of 16 cadastral zones.

Gračanica - Administrative centre located at 8 km southeast of Priština and concentrated along Priština-Gnjilane main road. Settlement of Gračanica has 1500 households of multi-ethnic composition. The following institutions are located in settlement of Gračanica itself: Gračanica MA, health, educational and cultural institutions, sports and recreation centre, a centre for people with special needs, monuments of cultural heritage (Monastery of Gračanica, archaeological site Ulpiana and the First World War monument), office of KEK, PTK and Priština Regional Water Company, NGOs, commercial institutions-banks. Settlement of Gračanica has utility infrastructure: roads, water, sewage, atmospheric sewage, electricity network and IT systems.

Sušica Settlement, located 3 km south of the administrative centre of Gračanica, and concentrated along the local Janjevo – Gračanica road. Sušica Settlement has about 180 multi-ethnic households. Sušica has educational, cultural and health institutions and the religious building - St. Dimitrie Church.

The settlement has a partially regulated infrastructure: paved roads, electricity grid, water and sewerage network, the sanitary content of which flows into Sušica stream, and IT system

Novi Badovac, located south of the administrative centre of Gračanica. This settlement is inhabited by 100 Serbian households and is concentrated along the Gračanica-Sušica road. The settlement has entire utility infrastructure: water and, sewage system, electricity, paved streets, IT system and cultural centre.

Kišnica Settlement, located to the east of the administrative centre of Gračanica and concentrated along the main Priština-Gnjilane road. The settlement is multi-ethnic and has about 120 households. There is also an unregulated river-bed and partially regulated public utility infrastructure (sewage and water systems, electricity network, local streets), as well as a primary school, a health centre and a cultural centre.

Laplje Selo, located west of Gračanica administrative centre at a distance of about 3 km, concentrated along the main Priština-Skopje road. Laplje Selo is inhabited by 400 households of multi-ethnic composition. There are also about 65 families living in a housing complex. The settlement has a regulated utility infrastructure: electricity, water system, sewage system, paved streets, IT system, education (kindergarten, elementary and secondary school) and healthcare (internal clinic and emergency squad) institution, fire service, sports and recreation centre, golf terrain, hunting lodge, regulated public park, partially regulated river-bed of Gracanka river and the religious building - St. Petka Church.

Čaglavica, located northwest of Gračanica administrative centre and concentrated along the main Priština-Skopje road. The settlement has 100 multi-ethnic households and regulated utility infrastructure: electricity, water system, sewage system, local streets and IT system. The settlement also has an educational and a health institution.

Preoce, located west of Gračanica administrative centre at a distance of about 5 km, and concentrated along the main Priština-Skopje road. The settlement has a regulated infrastructure: electricity, water system, partially constructed sewage system, unpaved streets and IT system. The village is inhabited by 200 households of multi-ethnic composition. The settlement has an education (kindergarten, elementary and secondary school) and a health institution and a local radio station.

Ugljare, located northwest of Gračanica administrative centre at a distance of about 12 km and concentrated along the local Preoce-Kosovo Polje road. The settlement has a partly constructed utility infrastructure: electricity, water system, sewage system, gravel roads and IT system. The settlement has 280 households of multi-ethnic composition, an educational institution and a health institution. Prištinka River—sanitary collector of Priština City - flows through the settlement.

Lepina Settlement, located west of Gračanica administrative centre at a distance of about 13 km, concentrated along the Gračanica-Radevo-Batuse road. The settlement has 95 households of multi-ethnic composition. As for utility infrastructure, it has electricity and sewage system, while for other infrastructure it has an educational institution and a health institution, IT system and one religious building - St. Pantelej Church. There is no municipal water system in the settlement, but the local households are supplied with drinking water from their own wells.

Suvi Do Settlement, located southwest of the administrative centre of Gračanica, at a distance of about 12 km, concentrated along the Lipljan-Lepina road and inhabited by 200 households with a multi-ethnic composition, has no city potable water supply network, but its population is supplied with drinking water from their own wells. As for utility infrastructure, it has water system and sewage system. Local streets in the settlement are covered with sand. There are also an educational institution (elementary school) and a healthcare institution.

Skulanevo, located west of Gračanica administrative centre at a distance of about 15 km and concentrated along the local Lepina –Lipljan road. The settlement has 100 households and no city potable water supply network, but its population is supplied with drinking water from their own wells. As for regulated utility infrastructure, it has: electricity, sewage system, (partially) paved streets. There are no educational or medical institutions in the settlement. There is also one religious building— Holy Trinity Church.

Radevo, located west of Gračanica administrative centre at a distance of about 16 km. The settlement is inhabited by 70 multi-ethnic households. It does not have city water system, but its population is supplied with drinking water from their own wells. As for utility infrastructure, it has: electricity and (partially) sewage system. As for other infrastructure, it has a four-year primary school

and cultural centre that is not in use. The settlement also has an arranged public park and a pond.

Batuse, located northwest of Gračanica administrative centre at a distance of 18 km, inhabited by 90 multi-ethnic households and concentrated along the Lepina–Donje Dobrevo road. The settlement has no potable city water supply, but its population is supplied with drinking water from their own wells. As for social infrastructure, the settlement has an educational institution (four-year school), a health institution (first aid station) and a religious building – Holy Sunday Church. There is also Komel factory (production of casings for electronic devices), which currently is not in operation.

Gornja Gušterica, located south of the administrative centre of Gračanica at a distance of 10 km, with 150 predominantly Orthodox households and concentrated along the local Lipljan-Janjevo road. The settlement has a regulated utility infrastructure: electricity, water system, sewage system and (partially) paved streets. As for other infrastructure, it has an educational institution (elementary school), a health institution (first aid station), IT system, an arranged public park and the St. Immaculate Church religious building. Rivers Janjevka and Oklapka flow through the settlement.

Donja Gušterica, located south of the administrative centre Gračanica at a distance of 11 km, concentrated along the local Lipljan-Janjevo road, inhabited by 350 multi-ethnic households. The settlement has a regulated utility infrastructure: electricity, water system, sewage system and IT system. There are also the education institutions (kindergarten, elementary and secondary school), a health institution (health centre), two regulated public parks and religious building - St. Prince Lazar Church. Janjevka River flows through the settlement.

Dobrotin, located on the southwest side of Gračanica administrative centre at a distance of 14 km, concentrated along the local Lipljan–Janjevo road, inhabited by 300 multi-ethnic households. The settlement has a regulated utility infrastructure: electricity, water system, sewage system and IT system. There are also the education institutions (kindergarten and primary school), a health institution (first aid station), two housing buildings, two regulated public parks and the St. Dimitrie Church religious building. Žegovka River flows through the settlement, which also has a commemorative National Liberation Movement of Resistance plaque.

Livađe, located on the southwest side of the administrative centre of Gračanica, at a distance of 9km, concentrated along the local Laplje Selo-DonjaGušterica road, inhabited by some 200 households of multi-ethnic composition. The settlement has a regulated utility infrastructure: electricity, water system, sewage system and IT system. There are also an educational institution (elementary four-year school), a health institution (first aid centre), a regulated WWII memorial public park, a regulated public park and one religious building - St. Gregory Church.

2.7.4. Road transportation:



Transportation through the municipality

There are three main roads passing through the Municipality of Gračanica:

- Priština- Gnjilane (5.5 km through the municipality)
- Priština - Skoplje (12.3 km through the municipality)
- Priština - Prizren (3.45 km through the municipality)

The network of local roads connecting the municipality settlements is 90 km long. Most local roads have been reconstructed and paved during the establishment of the Municipality of Gračanica.

2.7.5. Railway transportation

There are two railway routes passing through the Municipality of Gračanica:

- International electrified Priština-Skopje - Athens line
- local railway which connects the settlements of Kišnica, Gračanica, Laplje Selo and Lepina

This line was used by Kišnica mine for the transportation of raw ore. The railroad was in use until 2003, and was also used for passenger traffic.



The airport is located at a distance of 22 km from Gračanica. Given the strategic location of the Balkan central region airport, International directions from Priština make possible connections to all centres of the Balkans. Priština air port is used for passenger and shipping air transportation.

Source: RPC Gračanica

2.7.6. Population and demography

Young people make up 35-40% of the population; a positive population growth rate was 1.96/2.60%, which makes the age structure of the municipality's population favourable. Migration in the last twelve years, with the increasing tendency of immigration, has contributed to the number of inhabitants in the municipality, and this increase has become more prominent in recent years. The reasons for the growing population of Gračanica municipality are advantageous geographical position and the possibility of starting business.

| Redni broj | Godina | Broj živorođenih | Broj umrlih | Stopa nataliteta na 1.000 stanovnika % | Stopa prirodnog priraštaja | Broj umrle odojčadi | Stopa smrtnosti odojčadi na 1.000 živorođenih |
|------------|--------|------------------|-------------|--|----------------------------|---------------------|---|
| 1. | 2007 | | | | | | |
| 2. | 2008 | | | | | | |
| 3. | 2009 | 358 | | | | 1 | |
| 4. | 2010 | 372 | 176 | 1,96 | 196 | | |
| 5. | 2011 | 437 | 177 | 2,60 | 260 | | 0,001 |

Table 5 According to the data from Gračanica Municipality Birth Registry, 437 infants were registered in 2011

2.7.7. Education

Primary and secondary education of students in the schools of Gračanica has been going on for many years, and we can say for several centuries during which people were educated in various monasteries, such as Monastery of Gračanica. In the area of Gračanica, education is provided in primary and secondary schools, as well as in preschool institutions. Besides the regular schools, lectures are held in satellite classes. Nowadays, elementary schools located in the municipality of Gračanica attend 2241 student, about 1,360 attend secondary schools and there are about 644 children in preschool institutions.

2.7.8. Employment of Gračanica Municipality Population

In the municipality of Gračanica, number of employees in the private sector, according to the recorded business certificate, ranges from 992 to 1488. The table below shows 10 companies in which there are 196 full-time employees and 25 seasonal employees, although that number could be even higher, so the number of employees, according to the official data, is not realistic and objective.

| Br. | Enterprise | Activity | Place | Number of employees |
|-----|----------------------|---|------------|--------------------------|
| 1 | "ANTON" SH.P.K | Porcelain, glass and paint wholesale | LapljeSelo | 20 + one seasonal worker |
| 2 | "RELUX" SH.P.K | Manufacture of paints and varnishes | LapljeSelo | 10 |
| 3 | "KOSOVA KOLOR" SH.PK | Paints and varnishes wholesale | LapljeSelo | 5 |
| 4 | "ELNOR" SH.P.K | Manufacture of tables and chairs | LapljeSelo | 39 + 9 seasonal workers |
| 5 | "HIB" SH.P.K | Gas station, restaurant, grocery | LapljeSelo | 26 |
| 6 | "INTER QADRA" SH.P.K | Manufacture of tarpaulins and awning | Livadje | 7 + 7 seasonal workers |
| 7 | "KEMA" SH.P.K | Manufacture of concrete and cement products | LapljeSelo | 21 |
| 8 | "ORBICO" SH.P.K | Food groceries and cosmetics wholesale | LapljeSelo | 17 |
| 9 | "EBC COMPANY" SH.P.K | Cosmetics wholesale | LapljeSelo | 19 |
| 10 | "PORSHE" SH.P.K | Auto salon | LapljeSelo | 31 |

Table 6. (see Annex 1)

Qualifications of working age population are diverse. The biggest part of the skilled workforce has graduated from secondary vocational school: medical, technical, transport, construction, mechanical, economic-trade and agricultural. A smaller part has higher and university education in medicine, economics, agriculture, information technology and law.

2. 8. ECONOMY

The geographical position of the municipality is its highest potential, but possession of the agricultural land is definitely the first one.

The main rail routes connecting Priština – KosovoPolje – Peć road and Priština International Airport are located in EZC and represent good basis for economic development. There are two energy power plants near the municipality, Kosovo A and Kosovo B, as well as Belačevac and Dobro Selo open pits.

2.8.1. Economic Situation

Currently, the majority of business activities in the municipality relate to small businesses for trade and catering mainly focused on the production of goods for low level trade, while medium and large companies still do not exist. The majority is employed in the public sector, that is in education, followed by health care sector and, at the end, sector of local administration.

There are 496 companies registered in the municipality of Gračanica. Percentage of activities performed by these companies is as follows:

- Production 5.65 %
- Services 25.40 %
- Trade 68.95 %

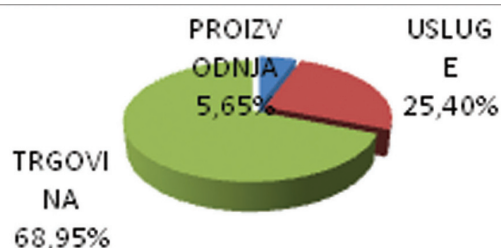


Fig. 2. Types of activities in the territory of Gračanica Municipality

2.8.2. Industry

Nowadays, industry as an economic branch is not developed, except for some small private initiatives. Industrial capacity of Kišnica as part of Trepča complex practically does not work, and it should be privatized. The following table shows activities of small and medium private enterprises.

Table 7 Production Activity

| No. | Enterprise | Activity | |
|-----|---------------------|---|------------|
| 1 | "MILLENIUM GROUP" | Flour production | LapljeSelo |
| 2 | "ELNOR" SH.P.K | Manufacture of tables and chairs | LapljeSelo |
| 3 | "MIQESIA" | Production of concrete | LapljeSelo |
| 4 | "KEMA COMPANY" | Manufacture of concrete and cement products | LapljeSelo |
| 5 | "EUROBETON COMPANY" | Manufacture of concrete elements for sewerage | Preoce |
| 6 | "SOLID" | Manufacture of gutters | Preoce |
| 7 | "YLLITERM" | Manufacture of heating boilers | Dobrotin |
| 8 | "CONCEZUS" | Manufacture of concrete elements | Dobrotin |
| 9 | "KRYEZIU 2" | Manufacture of concrete elements | Dobrotin |
| 10 | "LAS PALMAS" | Production of vegetables and flowers | Dobrotin |
| 11 | "XELLA" | Manufacture of silica brick | Dobrotin |
| 12 | "MENTORI COM" | Metal waste recycling | Dobrotin |
| 13 | "INTER QADRA" | Manufacture of tarpaulins and awning | Livadje |
| 14 | "SCAMPA" | Manufacture of plastic bags | Livadje |
| 15 | "FRATELO TRADE" | Production of cakes | Badovac |
| 16 | "FITORJA" | Manufacture of concrete | Čaglavica |
| 17 | "RELUX" | Manufacture of paints and varnishes | LapljeSelo |

2.8.3. Tourism

Tourist attractions in the municipality of Gračanica:

- Gračanica Monastery, the magnificent building from the fourteenth century, built by King Milutin in 1321. It is dedicated to the Assumption of the Holy Virgin
- Ulpiana Archaeological Site, remains of the Roman and early Byzantine city, founded in the mid-second century AD.
- Many different church buildings in almost every village
- Gračanica Lake
- Pond in Radevo
- Fountain resort and natural resources

Development of rural tourism is in the preparation – Municipal Development Plan (MDP)

2.8.4. AGRICULTURE AND FORESTRY

The Municipality of Gračanica designs its development strategy in rural development plans, which is why its economy is heavily dependent on agriculture. Agriculture is the most important activity in the municipality due to the structure of soil and favourable climate, which provide great opportunities for rural development of intensive arable farming and cattle breeding. One cannot neglect areas of meadows, forests and orchards, which cover 84% of the territory. Conditions for agricultural farms to associate and share new technologies and standards have not been created yet. Production is confined to household needs due to lack of market and opportunities to find a market for farm products, as well as due to outdated equipment. A large part of its area is the first and the second categories land.

The most prevalent branches of agriculture in the municipality of Gračanica are: arable farming, cattle breeding, fruit growing and vegetable growing.

Arable farming

Arable farming is the main branch of agriculture the local population deals with through seeding of crops. On an annual basis, according to data of relevant agriculture authorities in the municipality of Gračanica, around 7454.47 hectares of arable agricultural land is planted with cultures and produces a yield of around 4500/6000 kg/ha.

| No | Name of culture | Sown area (ha) | Type of fertilizer Quantity in kg/h | Needs NPK,KAN kg / |
|----|-----------------|----------------|--|--------------------------|
| 1. | Wheat | 3834.81 | NPK 300 autumn | 60/80 |
| 2. | Barley | 653.34 | KAN 350 spring | 50/60 |
| 3. | Sunflower | 123.32 | P2O5 90 | 40/50 |
| 4. | Corn | 2843,00 | K2O 60 | 30/50 |

Table 8 Crops, sown areas, the amount of fertilizer and needs

Light obsolete machinery is mainly used for the processing of agricultural land, fertilizers are used for feeding grain, while various herbicides and pesticides, which have a negative impact on the environment and ground water, are used for plant protection.

Fruit Growing and Vegetable Growing

In general, all households in the Municipality of Gračanica have in their gardens and yards seedlings of fruits and vegetables. As for fruits, villagers mostly grow plum, apple, pear, sour cherry, cherry, grape, peach and apricot. Villagers also grow potato, bean, pepper, cabbage, squash, cantaloupe, watermelon, onion, garlic, carrot, leek, spinach, lettuce, tomato, cucumber and other vegetables.

(Source: Gračanica Municipality Public Services)

Table 9

| Fruit growing | | Year | | | | | | | |
|-------------------|-----------------|-------------|--------|------------------|------------------|------------|--------|------------------|------------------|
| | | 2010. | | | | 2011. | | | |
| No. | Type of culture | Surface /ha | Red/ha | Production /tons | Price at farm/kg | Surface/ha | Red/ha | Production /tons | Price at farm/kg |
| 1 | Apple | 8 | 50 | 400 | 0,5 | 10 | 50 | 500 | 0,5 |
| 2 | Pumpkin | 1 | 3.5 | 3.5 | 0.1 | 1 | 3.5 | 3.5 | 0.1 |
| 3 | Peer | 2 | 30 | 60 | 0.9 | 2.5 | 30 | 75 | 0.9 |
| 4 | Peach | 1 | 40 | 40 | 1 | 1 | 40 | 40 | 1 |
| 5 | Soar cherry | 2 | 30 | 60 | 0.4 | 2 | 30 | 60 | 0.4 |
| 6 | Cherry | 1 | 6 | 6 | 0.8 | 1 | 6 | 6 | 0.8 |
| 7 | Strawberry | 2 | 5 | 10 | 0.6 | 2 | 5 | 10 | 0.6 |
| 8 | Raspberry | 1 | 4.5 | 4.5 | 0.6 | 1 | 4.5 | 4.5 | 0.6 |
| 9 | Blackberry | 1 | 4.5 | 4.5 | 0.7 | 1 | 4.5 | 4.5 | 0.7 |
| 10 | Blueberry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | Plum | 6 | 32 | 192 | 0.3 | 7 | 35 | 245 | 0.3 |
| Vegetable growing | | Year | | | | | | | |
| | | 2010 | | | | 2011 | | | |
| No. | Type of culture | Surface /ha | Red/ha | Production /tons | Price at farm/kg | Surface/ha | Red/ha | Production /tons | Price at farm/kg |
| 1 | Paper | 10 | 7.2 | 72 | 0.4 | 11 | 7.5 | 82.5 | 0.42 |
| 2 | Tomato | 10 | 9 | 90 | 0.3 | 10 | 9 | 90 | 0.3 |
| 3 | Cucumber | 4 | 20 | 80 | 0.2 | 4 | 20 | 80 | 0.2 |
| 4 | Cabbage | 4 | 13.7 | 54.8 | 0.12 | 3 | 13 | 39 | 0.12 |
| 5 | Cauliflower | 1 | 20 | 20 | 0.25 | 1 | 18 | 18 | 0.25 |
| 6 | Watermelon | 1 | 30 | 30 | 0.2 | 1 | 28 | 28 | 0.2 |
| 7 | Melon | 1 | 30 | 30 | 0.25 | 1 | 25 | 25 | 0.25 |
| 8 | Potato | 50 | 13 | 650 | 0.2 | 40 | 13 | 520 | 0.2 |
| 9 | Onion | 10 | 60 | 600 | 0.2 | 10 | 60 | 600 | 0.2 |
| 10 | Garlic | 5 | 20 | 100 | 0.4 | 5 | 20 | 100 | 0.4 |
| 11 | Parsley | 1 | 1.5 | 3.5 | 0.4 | 1 | 3.5 | 3.5 | 0.4 |
| 12 | Carrot | 5 | 20 | 100 | 0.3 | 3 | 20 | 60 | 0.3 |
| 13 | Beans with corn | 100 | 1 | 100 | 1.2 | 60 | 1 | 60 | 1.2 |
| 14 | Beans | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Spinach | 3 | 1.5 | 4.5 | 0.4 | 2 | 1.5 | 3 | 0.4 |
| 16 | Green lettuce | 1 | 1 | 1 | 0.4 | 1 | 1 | 1 | 0.4 |
| 17 | Leek | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |
| 18 | Pumpkin | 1 | 3.5 | 3.5 | 0.1 | 1 | 3.5 | 3.5 | 0.1 |
| 19 | Gourd | 1 | 3.5 | 3.5 | 0.2 | 1 | 3.5 | 3.5 | 0.2 |
| 12 | Carrot | 5 | 20 | 100 | 0.3 | 0 | 0 | 0 | 0 |

Growing of vegetables on open without glass and plastic greenhouses

Cattle breeding

A cattle breeding is one of the most represented agricultural sector in the municipality of Gračanica. In total there are 19 registered farmers in the Institute for Food and Veterinary. Gračanica Municipality is trying to encourage farmers to breed cattle and deal with agricultural production through soft loans and subsidies granted through the Ministry of Agriculture, and the result is increase of live stock to 896 animals in 2011. In addition to the grains being used as concentrated food, by sowing clover on 211 ha in Gračanica municipality we get fodder production. One must

not forget potential of meadows and pastures for preparation of haylage and silage to feed animals in winter. Assistance from the government to farmers who produce milk and deal with cattle breeding is crucial for further development of cattle breeding and more adequate shelter and food in order for production to be more intensive, but donor assistance is also very important for the survival in this area.

Beekeeping

In recent years, beekeeping in Kosovo has developed a lot thanks to the international and domestic donations. However, most credit goes to beekeepers themselves. Beekeeping is developing with great intensity, primarily due to non-functioning of the industry. This activity uses its products, such as honey, bee bread, propolis and honey plants pollen, for various medicines of herb extracts and bee products. For the present, beekeeping is based on a family or individual bees rising, which has 15 members, and applicants for subsidies to beekeepers. Information obtained from the Public Services for Agriculture and Forestry.

The current situation and possible potential

| No. | Individually beekeeping by CC | The present state of society | The possible potential |
|-----|-------------------------------|------------------------------|------------------------|
| 1 | Gračanica | 70 | 150 |
| 2 | Kišnica | 10 | 100 |
| 3 | Dobrotin | 30 | 150 |
| 4 | Livadje | 220 | 150 |
| 5 | LapljeSelo | 100 | 120 |
| 6 | Ugljare | 25 | 190 |
| 7 | Batuse | 90 | 150 |
| 8 | Lepina | 60 | 180 |
| 9 | Radevo | 5 | 150 |
| 10 | Skulanevo | 30 | 150 |
| 11 | Suvi do | 30 | 150 |
| 12 | DonjaGušterica | 40 | 100 |
| 13 | Preoce | 65 | 180 |
| 14 | Čaglavica | 230 | 50 |
| 15 | GornjaGušterica | 100 | 180 |
| | Total | 1130 | 2150 |

However, independent beekeepers plan to create an association of 10 beekeepers.

| The current state | | Quantity x Kg x Price | | | Σ |
|---|----------|-----------------------|-----|-------|---------------|
| No. | Product | Association | Kg | Price | Total |
| 1 | Honey | 1130 | 20 | 7 | 158200 |
| 2 | Wax | 1130 | 1.5 | 6 | 10170 |
| 3 | Pollen | 1130 | 0.3 | 10 | 3390 |
| 4 | Propolis | 1130 | 0.2 | 10 | 2260 |
| Total health products and medicines in Euros | | | | | 174020 |

Forestry

Kosovo forest potential is 41.8%, with about 455,000 ha. Forests in Gračanica municipality cover an area of 389.79 hectares, which represents about 3.22% of the total territory of Gračanica Municipality, and they are private and state property. Forests in Gračanica municipality are located in the north-eastern and south-eastern part. The most common kinds of forest wood are black and white pine and oak forests. In 2011, Department of Agriculture and Forestry, in cooperation with the Ministry of Agriculture and Forestry and the Forest Agency of Kosovo, planted black pine (*Pinus nigra* Arnold) on an area of 10 ha in the municipality of Gračanica.

Forestry officials, with the approval of public services, issue certificates on transport of wood and confiscation of illegal wood, and last year they confiscated some 10 m³.

2.9. NATURAL RESOURCES AND ORE DEPOSIT

The municipality of Gračanica has natural mineral deposits, Kišnica and Badovac, which contain lead, zinc and silver. Ore resources are scarce minerals, primarily indium, cadmium, germanium, gallium and thallium. These scarce minerals are used in high-tech industry.



Picture: The map clearly marks Kišnica and Badovac site

2.9.1. Water resources

The municipality of Gračanica is rich in water resources such as natural sources of water and Gračanica Lake, with rivers of Gračanka, Sitnica, Prištinka, Janjevka and Žegovača, as well as Sušica stream, flowing through its territory.

2.9.2. Sources of water

In the Municipality of Gračanica there are natural sources of water: Fountain in Gračanica, inexhaustible Šamak spring which lies between Sušica and Livadje and Alban Fountain between Gornja Gušterica and Janjevo.



Pic. 18: Sušica Šamak Livadje



Pic 19: Fountain in Gračanica



Pic 20: G. Gušterica Alban Janjevo

Gračanica Lake is an artificial reservoir on the river of Gračanka, two miles above Gračanica, built during 1963–1966 to supply Priština with water. The 52 m high and 246 m wide dam was built in Badovac gorge, below Androvac Mountain, close to the Kišnica mine. When full, the lake is 3.5 km long and up to 500 m wide, maximum depth is 30 m, and total volume is 26 million m³ of water. Ibar-Lepenac Channel, constructed as a system to fill up this reservoir, is not in use. Construction of dam displaced the Serbian village of Novo Selo, in the zone of lake water, and Badovac below the dam.



Picture 21 Lake

2.9.3 Rivers

The Gračanka River, with its original river-bed as a spring of the river below Androvac forests, derived from streams and rivers of villages Labljane and Mramor. It is rich in flora and fauna, rises beneath Gračanica lake dam itself and flows by Kišnica Mine tailings. This riverbed habitat is polluted for many biological species. The river continues its flow by monastery Gračanica, through settlements of Gračanica, Laplje Selo, Preoce and Dobrevo and empties into Sitnica at the exit of Donje Dobrevo. This river is 18.50 km long. Part of Gračanka river-bed, an area next to the Monastery, has been regulated with benches, street lighting and a promenade along the quay.

The Sitnica River is the largest river in Kosovo. It rises in the south-eastern part of Kosovo, at the Žegavac Mountain. Sitnica is 90 km long, and its average flow at the estuary is 9.5 m³/sec. Although average elevation of its basin is 1,000 m, Sitnica has all the characteristics of lowland rivers: a slight fall (0.76%) and shallow meandering river-bed from which regularly spouts during higher water levels and changes the riverbed. It flows through middle Kosovo and near Kosovska Mitrovica flows into the Ibar River. Its basin covers an area of 2861 km². The Sitnica watercourse is the place where the Nerodimka River bifurcate (The Nerodimka river water divides and one branch goes to the north into Sitnica, and the other to the south into Nerodimka again). This artificial bifurcation is a very old phenomenon (it is mentioned in King Milutin Gračanica Charter, and is often regarded as the natural one).

The Prištevka River used to be clean 30 years ago. Today, with all its length of 15.43 km, as a sanitary collector of Priština City, it flows through Ugljare settlement and empties into Sitnica. Neglected shores are covered with shrubs, bushes and willows. River-bed is full of mud and sanitary content of sewage waste water. A bridge built over the Prištevka River prevents greater water flow, so that the flooding is frequent in the vicinity of the bridge in Ugljare.

The Janjevka River passes through Donja Gušterica. This river runs dry during dry summer periods, and water is available only in winter, but as a faecal collector of waste water from households and various rubbish. Žegovac and Sušica stream beds, in addition to waste water, are cluttered with various rubbish and sanitary contents from rural economic yards where animals are kept.

2.10. FLORA AND FAUNA

The territory of the Gračanica municipality is one of the least afforested territories in Kosovo. Forests and forest plantations cover an area of about 3.22% of the total territory of the municipality, the lake covers 0.34%, and barren land covers 0.40% of the municipality, with the tailings dumps located at a one-time vineyard. Nowadays, there is a swamp area covered with reed and bulrush, as a habitat without conditions for survival for many biological species. Radevo pond covers 0.57% of the territory, it is neglected and dysfunctional.

2.10.1. Biodiversity

The area is represented by different habitats, ecosystems, biocenosis of varying degrees, bio diverse and preserved flora and fauna.

Gračanica area, especially Badovac gorge to Androva Mountain, is very rich in flora, aromatic and medicinal herbs, mushrooms and berries.

Vegetation cover can be divided into three groups:

- Woody species with shrubs and ground flora in the forest
- Grass cover, meadows and pastures
- Public green areas and parks

High forests are mostly wild forests characterized by biome of deciduous trees of oak, beech and elm, and the rest is forest culture -conifers, while grass cover is comprised of meadows and pastures.

In terms of fauna, due to the natural habitat, the municipality has various types of small game. As for the feathered animals, there are wild ducks in its flock, and the lake fauna rich in fish; as for native species, there are carp, chub and whitefish, crab and shellfish, and in the meantime catfish, roach, bream and Prussian carp are brought through stocking with young fish. According to the fishermen, the pike was noticed in the lake. Reptiles such as wall lizard, forest lizard, grass snake, adder, viper, and different species of water snakes also have its habitat in the territory of the municipality. The Gračanka river-bed fauna completely disappeared and only Jezerska and Radevo pond have some small game that could soon become extinct if association of hunters do not take appropriate steps for their survival.

- There is a hunting club in the municipality of Gračanica and a hunting lodge in Laplje Selo, but there is no hunting industry in the municipality. This is a very important industry, not only for organizing hunting-ground at the existing natural habitats, where organized hunting and fishing would foster eco-hunting, but also for providing the legal basis for the protection of endangered wildlife: big game, wild boar, which have become extinct, rabbit, squirrel, badger, hedgehog and turtle; as for feathered game- pheasant, partridge, hawk, woodpecker, owl and hawk, as permanently protected species, while wolves, fox, magpie, crow and ferret would be outside of the protection regime.

2.10.2. Park Complex

Along with other green areas, it has specific importance as a part of new projects and the question is whether the population is ready to accept it as a property, and what are the opportunities for local governments to work on the maintenance and protection as part of a larger ecosystem.



Total = 16405 m2

Parks cover an area of about 16.405 m2, spreading a feeling that the urbanization of green corridors is ongoing. In the park part one can find various kinds of plants. Woody species have been planted, such as high and prostrate conifers, deciduous tree species, species of coniferous shrubs, evergreen, dwarfish and deciduous shrubs, and then climber and varieties of roses.

Gračanica Monastery yard makes an authentic ambient entity, located in the centre of Gračanica, with deciduous horse chestnut, a few birch and evergreen coniferous trees, hedges, lawns and ornamental shrubs.



Pict. 23: Ambient entity of Monastery courtyard

Directorate of Planning, Urbanism, Land Registry and Environmental Protection organized the action “Let’ select the best-arranged yard and area around the apartment buildings” in order to stimulate the population of Gračanica to, by investing in and representing their yards, raise awareness of majority of the population about the preservation of a healthy sustainable environment, which should become a tradition.



Slika. 24

2.11. Health Care

Health care provides primary and secondary health services to all citizens in the Kosovo region. Functioning institutions are hospital, health centre and several first aid stations. Given the harsh working conditions, results of these institutions show:

- number of specialist examinations
- number of ultrasound scans,
- number of surgeries, and most importantly the number of births

Because of the lack of medical equipment and the lack of space in terms of specialist first aid stations and rooms for reception of patients, all examinations are conducted in harsh conditions. New facilities and purchase of new medical equipment would allow a much better and quality work organization in the provision of medical assistance.

Table 12 Municipal Health Institutions

| HOSPITAL | HEALTH CENTER | FIRST AID STATION |
|-------------------------|---------------|-------------------|
| Surgery and Obstetrics | Gračanica HC | Čaglavica |
| Internal Clinic | Gračanica HC | Preoce |
| | Ugljare HC | Lepina |
| | | Suvi Do |
| | | Livadje |
| | | GornjaGušterica |
| | | Batuse |
| | | Sušica |
| | | Dobrotin |
| | | LapljeSelo |
| Three private hospitals | | |

Table 13 Services in health institutions

| NUMBER OF HEALTH SERVICES USERS | | | |
|---------------------------------|----|---|--------|
| REVIEW | 1 | Reception Department, specialist examinations | 12,248 |
| | 2 | Neurology, specialist examinations | 4,781 |
| | 3 | Neurology, bed-ridden patients | 150 |
| | 4 | Pediatrics, specialist examinations | 7,033 |
| | 5 | Pediatrics, bed-ridden patients | 108 |
| | 6 | Internal Clinic, bed-ridden patients | 396 |
| | 7 | Intensivecare, bed-ridden patients | 184 |
| | 8 | Endoscopy, specialist examinations | 340 |
| | 9 | Gastroscopy and Colonoscopy | 60 |
| | 10 | Laboratories, the number of patients | 3,691 |
| | 11 | Number of analyzes | 73,741 |
| | 12 | X-ray cabinet | 1,245 |
| | 13 | Surgical examinations | 7,235 |
| | 14 | Orthopedic examinations | 3,252 |
| | 15 | Ultrasound | 595 |
| | 16 | Surgical and orthopedic operations | 412 |
| | 17 | Gynecological examinations | 3,732 |
| | 18 | Gynecological ultrasound | 4,616 |
| | 19 | Childbirth | 372 |

The municipality of Gračanica, focused on a human being and his health, has recently opened a laboratory diagnostic centre with a wide range of diagnostic aids that cover a very broad diagnostic field. The systems are specifically designed and suitable for the application, taking into account current environmental requirements. Behind the name 'Laboratory Diagnostic Centre Gračanica' stands an organized and skilled team that provides patients with accurate and rapid diagnosis.

2.11.1. Social Services

Centre for Social Works shall exercise the rights in the field of social welfare in order to provide social and family security to citizens. Beneficiaries of the Centre for Social Work are children and youth with problematic family situation, children and youth with behavioural disorders, children and youth with special needs, persons with impaired mental functions or impaired psychophysical functions, adults with behavioural disorders, physically and mentally disabled adult persons, financially unsecured and homeless persons. Other adults: persons with family problems, persons who has experienced domestic violence, adoptive parents. Elderly persons - This category includes elderly persons without family care, elderly persons without the means of subsistence, elderly and chronically ill persons and disabled persons, elderly persons with family problems, other elderly persons to whom the temporary guardian is assigned.

Part-3

3. ENVIRONMENTAL SITUATION AND VALUES

Environment is a framework in which all living things live, with mutual relationship with others in their environment. Human environment is a process in which people live respecting environmental values: natural, human and cultural. Welfare of the present generation depends on recognizing the problems and taking certain actions to protect the environment, well-being and survival of future generations. After its formation, the municipality of Gračanica has been faced with a big challenge to solve some of environmental problems, most of which are inherited due to long-standing social and political differences, where values are neglected and problems increased. Initiation and implementation of many Gračanica municipality action plans projects have improved living conditions. We want our community to become a democratic society and reach standards of South-eastern Europe. Therefore, we are working on identifying problems through the values, and divide the environment into areas determined by local government, making sure to include four principles of the democratic process: ECONOMICS, ENERGY, ENVIRONMENT AND PUBLIC AWARENESS.

Map of values to be assessed in identifying problems.

Table 14 Environmental Values

| PROBLEMS THROUGH VALUES | | |
|-------------------------|---|--------------------------------|
| NATURAL | HUMAN | CULTURAL |
| Water | Urban Culture and Gender Equality | Heritage, Tradition and Legacy |
| Air | Education of Youth, Solidarity and tolerance | Parks and green areas |
| Soil | Raising awareness about importance of environment | Cultural centers, museums |

3.1. ENVIRONMENTAL ASSESSMENT BY THE WORKING GROUP PARTICIPANTS

3.1.1. Basic process for environmental assessment

Selection of subject areas in order to better identify problems through assessment of the situation - We have started with the natural, human and cultural values, for which we are sending messages through symbols.

Message: green -greener, urban - more urban, and older - more modern

1. Natural environment, natural resources and utilities
2. Urban planning, land use and local infrastructure
3. Local economy and standard of living
4. Social services, health and demography
5. Education, participation of citizens and local communities in decision-making
6. Cultural heritage, tradition and heritage

Assessment of the situation starts with the message that final vision should be designed through several messages, in addition to the symbolism and the described areas. We evaluate both positive and negative impacts on the environment, we present a table view of the situation, SWOT analysis identified the internal and external factors of influence: strength and opportunities, weaknesses and threats. We rank the environmental issues and based on the ranking results we determine subject areas. Through Action plan based on environmental subject areas of air, water, earth and biodiversity we solve critical problems.

- Vision
- Environmental Assessment
- SWOT analysis
- Ranking of environmental issues
- Subject areas



3.1.2. Natural Environment, Natural Resources and Utilities

Natural environment is everything that surrounds our society, where biological diversity or biodiversity lives. Local Environmental Action Plan solves environmental issues and environmental relations influenced by non-biotic and biotic factors.

Non-biotic components: water, air, earth, climate, temperature and sunlight.

Biotic components: the mutual influence of plants, animals and human beings.

Any negative impact and threat to these components degrade biodiversity, and disruption in the natural environment is changing the relationship of mutual biodiversity connection.

Natural resources of the municipality of Gračanica are: lake, rivers and inexhaustible springs being maintained as fountains for many years. The greatest potentials of Gračanica municipality is agricultural land suitable for strategic economic development due to its structure, the climatic conditions favourable for the development of intensive farming, organic food and rural development, as well as ore deposits of lead, zinc and silver.

Utilities, as evidence that the life of environment can be carried out in accordance with its needs,

play an important role in sustainable development and include fire service, police, telephone service, public green area, waste management, water supply, market activity, etc. In our municipality, the problem at the level of municipal services is not solved, despite the fact that NGOs as main drivers managed to raise awareness of people through their actions. The main factors for the improvement of these services are building of new municipal institutions and implementation of law.

3.1.3. Swot analysis 2

Environmental assessment is a response to internal and external factors. SWOT analysis is conducted to identify strengths and weaknesses as well as opportunities and threats of Gračanica Local Government social community.

Message: Healthier, better organized and cleaner environment in the municipality of Gračanica

| Strengths | Weaknesses |
|--|---|
| <ol style="list-style-type: none"> 1. Preservation of agricultural land and prevention of illegal construction 2. Care of stray dogs 3. Afforestation in Gračanica Municipality 4. Organic healthy food <p>Raising public awareness of the need for environmental protection</p> | <ol style="list-style-type: none"> 1. Lack of organized the municipal and the medical waste removal 2. Unregulated water system and sewerage network 3. Uncontrolled use of agricultural land |
| Opportunities | Threats |
| <ol style="list-style-type: none"> 1. Regulation of river-beds in the municipality of Gračanica 2. Removal of illegal landfills 3. Improvement of water supply system and sewer network 4. Removal of mine waste landfill – tailings 5. Forest conservation and prevention of illegal felling | <ol style="list-style-type: none"> 1. A large number of illegal landfills 2. A large number of stray dogs 3. Lack of green areas 4. Poor road infrastructure 5. Discharge of sanitary sewerage into river-beds 6. The use of agricultural chemicals and fertilizers |

Swot analysis 1.



3.1.4. Urban planning, land use and local infrastructure

Urban planning is a technique of planning and organization of the settlement, which takes into account the aesthetic, hygienic and practical needs of the citizens. With regard to use of land as a medium of spatial planning, one should take into account both the rural development and industrial production as well as local infrastructure planning, in order to properly use the space for sustainable development.

The main focus is aimed at dynamic and planned development of the municipality, with a tendency that, through urbanization, Gračanica municipality move from rural to urban area, which would create better conditions for the life and work of local people, while preserving the rich cultural and archaeological heritage. The basic idea of the development process is regulation of the current situation, as well as its alignment with the planned activities. The ultimate goal is a modern, urban and economically strong municipality with a healthy environment, developed economy and preserved cultural heritage. There is a service for planning, urbanism, land registry, environmental protection and European integration within the Department.

Message: Clean up and fix up the environment we live in

| Strengths | Weaknesses |
|---|---|
| Rivers Lake Natural sources - fountains Agricultural land Forests Green park areas Fish pond Existing zoning plans from 1987 Drafting a municipal development plan Drafting the urban development plans | Insufficient protection of cultural and natural heritage Illegal landfills Tailings - Kišnica mine Discharge of wastewater into river-beds Unregulated river-beds - watercourses Unplanned (illegal) construction Individual and collective pollutants (heating with wood and coal) Unplanned deforestation Lack of awareness about environmental protection Lack of infrastructure in settlements |
| Opportunities | Threats |
| Using raw materials of plant origin for biomass energy Healthy food production (agriculture and livestock) Regulation of river-beds Construction of waste water treatment factory Construction of waste selection and recycling factory Construction of irrigation system Restoration, rehabilitation and reforestation Tailings Planning the landfills | Illegal construction Wild landfills -unplanned waste disposal Natural disasters - floods - due to unregulated watercourses Tailings - water, air and soil pollutant Dam - a broken dam spillway |

Swot analysis 2.



3.1.5. Local Economy and Standard of Living

Local economy and standard of living in particular depend on the social structure and the needs of a society to use its environment and natural resources for the benefit of the present generation, according to the basic principles of benefit for the economic development and standard of living, but in harmony with the preservation of the environment and biodiversity, in order to bequeath healthier and better regulated environment to future generations, with the potential for the local economy and standard of living to be at an enviable level. In addition to natural resources and position, nowadays investors particularly pay attention to the credibility of country they invest to. Gračanica municipality realizes that support to rural development and the production of healthy food would develop its local economy, given the great opportunities for the development of rural tourism, as well as promoting culture and medieval archaeological site.

Message: Good standard of living with proper use of agricultural land, beginning of production and development of tourism

| Strengths | Weaknesses |
|---|--|
| Manufacturing companies(opening of new factories) Agricultural land(production of plants) Energy sources(wind,sun, biomass) Radevo fish pond Education of young entrepreneurs Geography Ulpiana and Gračanica Monastery | Lack of landfills(processing oil, rubber, glass) Lack of infrastructure Lack of agricultural products processing factories |
| Opportunities | Threats |
| Urban plan Healthy food production Eco-rural-tourism Opening the micro-family businesses Donor Support Hunting and fishing | Weather conditions Threats of agrochemical agents |

Swot analysis 3.



3.1.6. Social services, health and demography

Social services and health are very important institutional services, and demography largely depends on the needs of the disadvantaged and the sick, who find some kind of their social peace through such institutions.

Gračanica municipality has a centre for social work and a large number of beneficiaries of social services. With the establishment of the municipality, Hospital Clinical Centre Project has been initiated as a capital investment project and laboratory diagnostic centre has been equipped to the benefit of its residents health.

Message: healthy environment +*healthy

| Strengths | Weaknesses |
|---|---|
| <ul style="list-style-type: none"> Existence of health facilities(in primary and secondary health care) Center for Social Work Modernization of medical equipment Opening of the LDC Providing health services to citizens of other municipalities Professional staff A large number of young people | <ul style="list-style-type: none"> There is no medical waste recycling Lack of water supply system and sewer network in some settlements Lack of waste water treatment system Lack of social protection (shelter, counseling) |
| Opportunities | Threats |
| <ul style="list-style-type: none"> Construction of the Clinical Center Improve the living standards of the vulnerable persons NGO sector Opening of the social protection facilities Possibility of closing collective refugee centers Raising awareness | <ul style="list-style-type: none"> Medical waste Dumps Pollution of water, air, soil |

Swot analysis 4.



3.1.7. Education and participation of citizens and local communities in decision-making

The municipality of Gračanica and young people are willing to take responsibility in all areas such as education, social, cultural, health other policies relevant to the creation of conditions for the permanent benefit of young people and their active involvement in the community.

We believe that our youth represents a huge resource for the development and the future, especially in times of rapid economic and social changes, and therefore we advocate for youth-policy, which will bring many benefits to the family, community and society.

Gračanica Youth Action Plan emphasizes the importance of the following eight areas:

- Youth Education
- Information and mobility of youth
- Youth Health
- Active involvement of youth and volunteerism
- Youth Employment
- Social policy for youth
- Culture, sport and leisure of youth
- Ecology and Sustainable Development

The municipality of Gračanica hereby undertakes to provide EQUAL OPPORTUNITIES to young people from all social groups, regardless of any differences or gender.

Message: Modern and good schools, employment and volunteerism of youth and their involvement in all activities for their survival

| Strengths | Weaknesses |
|---|--|
| Existence of schools Existence of the professional staff Existence of a large number of young and educated people Existence of green areas Existence of sports grounds Existence of cultural facilities Existence of cultural monuments Existence of playgrounds and parks | Lack of school facilities Poorly equipped schools Unregulated school yards with only a few regulated green park areas Lack of regulated sports grounds Lack of cultural facilities Lack of summer theater Lack of regulated picnic grounds Lack of pools Unregulated area around the historic monuments of culture Rural area without inherited social facilities |
| Opportunities | Threats |
| Construction of new school facilities Regulation of the school yards and the environment Regulation of existing sports facilities Regulation of existing cultural centers Arrangement of picnic grounds with adequate recreational trails (jogging trails, bike paths) Restoration of cultural and historical monuments and regulation of surrounding area Starting voluntary work Education and development of environmental awareness and capacity among children, adolescents and adults Inclusion of students and community members in environmental action plans Formation of an NGO for the implementation of LEAP | Lack of funding Not recognition of the community problems by the donors Illegal landfills Inadequate participation of citizens in identifying environmental problems and their solution |

Swot analysis 5.



3.1.8. Cultural heritage, tradition and legacy

Heritage, tradition and legacy are the basis for the development of social system of a community in a spirit of recognizable values, and a mirror of the old times and the influence of different cultures. Prosperity of today's systems is largely related to the traditional heritage and the preservation of cultural values.

The municipality of Gračanica has a wider range of its heritage, such as Gračanica Monastery and church in all villages, enabling its residents to preserve their spiritual values and traditional culture through church fairs and celebration of family patron saint's day and religious holidays. This broader spectrum includes cultural associations, which in addition to ethnic costumes foster traditional music and choreography representing the identity of our HERITAGE.

Message: Enjoy life and feed our souls on cultural wealth

| Strengths | Weaknesses |
|--|---|
| Gračanica Monastery on the UNESCO World Heritage List Archaeological sites Ulpiana A large number of believers A large number of religious buildings Top cultural events (St. Vitus Day) Cultural institutions - drivers of environmental actions. | Lack of environmental awareness within the community Insufficient community engagement in terms of ecology Lack of the Law on Cultural Heritage implementation The creation of illegal landfills |
| Opportunities | Threats |
| Integration of problems into state and foreign funds Raising awareness to a higher level Determination of the Municipal Environmental Protection Day Protection and promotion of religious and cultural heritage and tourism development Prohibition of work activities harmful to the religious and cultural buildings. | Vicinity of tailings Great traffic frequency Illegal construction Unpredictable events - floods, fires in landfills, stubble, Gas stations close to cultural goods |

Swot analysis 6

3.2. Environmental Assessment

We have identified both positive and negative impacts in the meetings with the working group of the Municipality of Gračanica.

Table 15 Environmental issues and biodiversity

| Ecological Issues | ENVIRONMENT | Positive Impact | Negative Impact | BIODIVERSITY |
|-------------------|--|---|---|---|
| Water | Gračanica Lake Gračanka, Sitnica, Prištevka, Janjevka and Žegovka Rivers Natural springs and fountains | Constant water supply in Priština and surrounding settlements. In 1999, a system that fill up the lake through Ibar-Lepenac canals was created The quantity and quality of water used for water supply Planning for waste water treatment system Watercourses regulation Existence of natural springs | The amount of water in the lake is falling, irrational spending Non-functioning of the lake filling up system Constant pollution of groundwater and rivers with individual and collective pollutant The old irrigation system from the lake near Dobrevo does not work Constant pollution with Gračanka and Prištinka sanitary waste water – river-beds In 1966 began the degradation of watercourse due to disposal of tailing sterile Kišnica mine flotation started in 1999, but heavy metals are still present | Flora and fauna of Gračanica described through vegetation and wildlife habitats Proposal: Protected species and habitats such as birds and small game - reed-swamp - fishpond in Radevo Non-biotic components: water, air, earth, climate, temperature and sunlight Biotic components: the mutual influence of plants, animals and human beings Any negative impact and threat to these components degrade biodiversity, and disruption in the natural environment changes the relationship of mutual biodiversity connection |
| Air | Biosphere Hydrosphere Atmosphere Lithosphere | Controlling the air quality and hazardous gases through monitoring by Hydro Meteorological Institute Afforestation and increase of green corridors Redirection of Priština-grač-gnjilane regional road Shift to renewable energy: biomass, daily insolation and wind flow Favourable climatic conditions and existing weathervane | A large number of landfills Hazardous gases emissions Fires Noise and vibration Heating season Public Transportation | |
| Land | Arable land as a medium in the food chain | Gračanica Action Plan for removal of illegal landfills and environmental protection Plant protection and use of agrochemicals according to EU standards Organic healthy food production | Unplanned (illegal) construction Increased number of illegal landfills Conversion of agricultural land into construction and industrial land | |

3.2.1. PROBLEMS RANKING

Table 16

| No. | Description of ranked issues | Number of votes |
|-----|---|-----------------|
| * | *Industrial waste landfill | |
| 1 | Physical waste(medical waste) | 21 |
| 2 | Drinking water supply and sewage system | 18 |
| 3 | Illegal landfills | 13 |
| 4 | Privatebusinesses waste | 9 |
| 5 | Untreatedwaste waters | 8 |
| 6 | Unregulated river-beds | 8 |
| 7 | Land pollution | 7 |
| 8 | Informal settlements | 5 |
| 9 | Afforestation | 4 |
| 10 | Low level of environmental awareness | 4 |
| 11 | Recreational facilities in schools | 3 |
| 12 | Construction without a permitandchaoticurban planning | 2 |
| 13 | Refugee settlements-Containers | 1 |

Results of ranking

3.2.2. The results of ranking

The results of ranked problems are presented in the table as environmental issues for which specific subject areas are determined as a whole to address priority problems.

Tabela 17. Prioriteti po tematskim oblastima

| Environmental issues as subject areas | | Criteria | | | | |
|---------------------------------------|--|--|----------------------|--------------------|--------------------|---|
| | | Results of the ranked problems | Municipality Control | Legal requirements | Public preferences | For the benefit of the majority of the population |
| 1 | MUNICIPAL WASTE MANAGEMENT | Physical waste(medical waste) Illegal landfills Private businesses waste | | X | | |
| 2 | AIR POLLUTION AND HEALTH IMPACT | Industrial wastelandfill Land pollution Refugeesettlements-Containers | | | X | |
| 3 | PUBLIC GREEN AREAS | Recreationalfacilitiesi n schools Illegal constructionandchao ticurban planning Afforestation | X | | | |
| 4 | WATER SUPPLY | Lack of healthy drinking water in many villages and school facilities | | | | X |
| 5 | SEWAGE WASTE WATER | Sewer networks Untreated waste waters Unregulated river-beds | | | | X |
| 6 | PUBLIC AWARENESS AND CITIZEN PARTICIPATION | Lowlevel of environmental awareness Urban culture and gender equality | | | X | |

After adoption of vision, priority environmental problems are ranked. Priority problems are determined in two phases; the first one includes the problems identified in more than one thematic units, while the second stage prioritizes ranked environmental issues shown in the table as subject areas.

3.3. MAIN ENVIRONMENTAL CONCERNS

Unfortunately, humans treat nature contrary to its basic laws, so that biodiversity is increasingly under the negative influence of humans. For the last 150 years, mankind has jeopardized our and the environment of other living beings more than any other factor throughout geologic history of the Earth.

Measurement and control of basic parameters that would reveal the current environmental situation in the municipality of Gračanica were not conducted in the previous period. As there is no systematic database, the main concerns in Gračanica municipality can be divided into six subject areas to address environmental concerns regarding water, air, soil and biodiversity in accordance with the results of ranked concerns.

3.3.1. ENVIRONMENTAL SUBJECT AREAS

a. Municipal Waste Management

Municipal waste and landfill sites -the major problems associated with municipal waste are: the illegal landfill sites, inadequate regulation and small capacity of the existing local authorities, uncontrolled waste burning in the open, immediate vicinity of the existing landfills to inhabited areas, inadequate solid waste management, lack of selection and municipal waste recycling, lack of separation of hazardous waste and inadequate garbage collection in some areas.

b. Air pollution and the impact on health

The following sources of air pollution have been identified: the emission of pollutants from industrial mine plant, transport and heating of individual or collective furnaces. The municipality of Gračanica does not conduct systematic measurements of air quality in its territory and has no monitoring station, so there are no clear parameters, and air quality can only be defined as an increase in the number of people with respiratory and blood problems.

c. Green Public Areas

Unmaintained public green areas and parks - the problems are: lack of windbreaks on the territory of the municipality, lack of protective emission bands around Gračanica municipality and settlements, insufficient afforestation of the municipality, failure to maintain school parks and most other green areas and parks in the municipality, the absence of a systemic solution for maintenance of public green areas in villages, as well as the spread of weeds and other plant allergens. Inadequate construction planning and illegal construction in all parts of the municipality also contribute to the above-mentioned problems.

d. Water Supply

Problems are: the quality and quantity of water in the settlements of Batuse, Lepine, Skulanevo, Radevo and Suvi Do (development of key documents and further infrastructure works), low capacity

wells, wasteful spending in Gračanica, permanent restrictions in the Novi Badovac and Sušica, illegal connections to the regional water supply in some areas, the deterioration of water supply networks where water systems exist, lack of filters in wells and inadequate chemical purification of water, lack of water reservoirs, lack of an organized system of water distribution in the villages and vulnerable water intake of natural resources.

e. Sewage wastewater

Most settlements lack a constructed sewage system. In addition, in the more urban part of Gračanica sewer lines are open. Problems include unsolved sewage waste water treatment in areas where there is a sewage system, the use of unused wells for the disposal of sewage waste water and inadequate technical accuracy of the existing septic tanks and permanent ground water pollution.

f. Public awareness and public participation

Public awareness and environmental education - problems are: low level of awareness on the need to conserve natural resources in the whole municipality, and the need for constant environmental education campaigns in kindergartens and schools, as well as the inclusion of all citizens in planting and organizing events like World Earth Day, Clean Rivers Day, Environmental Day and the like, which can really increase an interest in, and at the same time preserve, the environment in the municipality of Gračanica. Accuracy of decision making in planning and regulating local community is heavily dependent on the quality and reliability of information on environmental situation available to decision makers. Gračanica municipality currently does not have any organized and efficient information system that would be aimed at improving the awareness and protection of the environment, and for the cadastre of pollutants (water, air, land) database will not be available until strategy of economic development and sustainable agriculture in the process of sustainable development is aligned with the EU on regional and local level.

3.3.2. The current environmental situation in the municipality

Groundwater is endangered by uncontrolled use of chemicals in agriculture and wastewater discharges from individual households and commercial premises in areas where there is no sewage system.

Surface water come to the municipality already polluted and municipality itself also contains significant pollutants. Pollution of land in the municipality of Gračanica is the result of various anthropogenic activities, so that all categories of land are endangered. Construction land is threatened by illegal and chaotic construction, illegal landfills (especially because of inadequate disposal and insufficient control), and industrial buildings (because of waste water, waste from solid and liquid fuels, various sedimentary materials).

In agriculture, contamination is present due to the inadequate use of fertilizers (in terms of quantity and type), the use of pesticides and other agro-chemical substances. The problem arising from the excessive use of pesticides is their persistence in natural conditions and content of phenols and heavy metals, which burdens the land. Currently, nobody analysis land or monitors changes in the quality (pollution) of land.

Noise sources are traffic, generators and the noise from the bars until late hours. Traffic noise probably exceeds permitted levels in the day and night time, especially near busy streets and highways, which in some cases can be a problem for the local population. Looking at the environment of Gračanica in a regional context, it can be concluded that there is a risk of deterioration of environmental quality given the long-standing unsolved problems.

3.3.3. Municipal Waste Management

Municipal waste management includes functions of collection, transport, recycling, treatment and disposal of municipal solid waste. Creation of municipal waste depends on the level of economic development, living standard, lifestyle, social environment, energy consumption and others factors. Local authorities have the primary responsibility for solid waste management. It is a complex task which requires appropriate organizational capacity and cooperation between a number of stakeholders in the private and public sectors. When developing a municipal waste management plan it is necessary to ensure active public participation in all stages of the decision-making process, in accordance with the principles of Aarhus Convention. Local waste management plan must be consistent with MESP and Regional Waste Management Strategy.

In recent years, there are more pressing need for more detailed data on household waste, particularly in the areas of planning, waste collection, waste treatment and identification of hazardous substances in the waste. Determining the morphological composition of waste is a key to the successful management of municipal waste.

This knowledge is necessary for utilities and economic interest groups involved in the general waste management to develop strategies and concepts for sustainable municipal waste management, reuse and disposal.

The municipality of Gračanica has an action plan to address this problem. The Municipality of Gračanica and regional company PASTRIMI signed an agreement, under the project funded by USAID DEMI, which partially solves the issue of collection of household waste and illegal landfills through the regional public utility company entrusted with waste management services. However, this company is increasingly facing problems due to unplanned treatment of municipal waste.

In addition, waste analysis is an integral part of waste management and if properly implemented allows to identify the generators of waste at the household level and spatial distribution, the amount of waste components that can be separately collected, and the quality and quantity of waste generated. It is also essential as a first step in the preparation of long-term management of municipal waste and helps to identify strategies for reducing the generation, treatment and disposal of waste (the basis for a waste management plan). These results are also a prerequisite for the fulfilment of obligations under the EU Directive on waste disposal, since the environmental action plan envisages the reduction of dumped waste to 20% in the period from 2011 to 2016, and up to 50% for the period until 2050.

A local waste management plan of Gračanica Municipality, while respecting legal obligation, will prescribe standards and regulations to define strategies for the generation, treatment and disposal of waste.

Household waste (municipal waste) is usually not considered to be hazardous waste. However, this type of waste may vary widely in composition. For example, it is observed that an increasing amount of packaging waste ends up in landfills and dumps. The following materials are discarded when preparing food: shells of fruits and vegetables, the leftovers, bones and other materials that cannot be recycled. Municipal waste contains the following: batteries and other electrical material, which sometimes contain toxins, cans with remnants of paint, oil and household chemicals, caustic materials, sterilizing agents, drugs, etc. Although these components represent a small share of municipal waste, they are especially problematic because they have the characteristics of hazardous waste, are chemically unstable, and their recycling or regeneration is very expensive. Discarded diapers, baby wipes and animal dung, which quickly degrade and become aggressive due to the effects of smell, could also be found. Classification of waste that ends up in a landfill has never been conducted, so these data are based on an estimate of members of the working group for the development of LEAP.

The reasons listed above indicate the necessity of controlling and paying special attention to the

municipal waste management, and developing methods for handling waste, which are consistent with the protection of the environment.

In the municipality of Gračanica, public service of waste collection is currently provided by CSD NGO through "CLEAN UP GRAČANICA" Project. The same NGO employs seven part-time workers.

Action plan for improvement of cleaning and trash collection services – August 2011 –The municipality of Gračanica

Why this service is a priority - the priority of this service is reflected in the fact that, as noted above, most of the villages in the municipality of Gračanica never had these services available, which is the main reason for the existence of a large number of illegal landfill sites and scattered trash. Also, this is why not only water but the entire environment is much polluted. This pollution is the cause of many infectious diseases, and there is a growing interest of population for such services to come to life in the full sense in our community. These services can be established thanks to the assistance that our municipality received from USAID DEMI program, from which we received 300 containers that are distributed in all 17 villages, including Gračanica, and one truck for rubbish collection.

Table 18 Collection of municipal waste in the municipality

| Indicators | Unit | |
|---|--------------------|-------------------------------------|
| The total amount of municipal waste | Kg/day | 18,000 |
| Collection of municipal waste per person | Kg/person/day | / |
| Families included insystem of waste collection bypublic utility companies | Number of families | 4,000 |
| Waste containers per household | Number | 300 cont. 1100L 2000 cont. 120 L |
| Vehicle for public utilities | Number | 3 |
| | % consumption | 35 l |
| Separation of waste - hazardous and non-hazardous | YES | / |
| | NO | / |
| Separation of paper/PET/ plastic bottles/ glass / metal | % division | / |

Municipal waste is regularly collected across the entire territory of the municipality of Gračanica. The table below indicates that the services are extremely bad. For the total population of 25000, it is estimated that 60% of new containers are needed for selective collection of non-degradable waste that can be used for renewable raw material. Collection, transport and waste treatment services are carried out by specialized vehicles, two from Priština. Morphological composition of waste is not defined as waste characterization and classification have never been conducted. Commercial/hazardous waste is significantly present at the landfill as well as the large number of illegal landfills in the municipality. In addition to household waste, the most represented is commercial waste. Small companies usually dispose waste in containers provided for household waste. Ratio of commercial waste to household waste has never been estimated. 496 companies are registered in Gračanica municipality.

The content of municipal waste- given that we received content of municipal waste from the public services, it is necessary to create conditions for the selective separation of waste to be used as raw material in renewable resources after recycling, thereby reducing the need for natural resources to be saved from the negative impact. Municipal Waste Management - to be solved in sustainable way, by dividing it into commercial and industrial waste.

Table 19 Content of municipal waste

| The flow and content of municipal waste | % | kg/daily |
|---|----|----------|
| Paper | 8 | 1440 |
| Plastic bottles | 15 | 2700 |
| Scrap-iron, copper, aluminum | 6 | 1080 |
| Glass | 17 | 3060 |
| Textile | 10 | 1800 |
| Biodegradable waste (food, agricultural waste, wood, biomass) | 26 | 4500 |
| Packaging waste | 4 | 720 |
| Risk waste (batteries/drugs/chemicals, pesticides/herbicides/packaging waste, etc.) | 1 | 180 |
| Solid waste-building materials | 14 | 2520 |

Table 20 Beneficiaries and value of priority projects

| No. | User | Unit | Price |
|-----|---|----------------|-------|
| 1 | CITIZENS | | € |
| 2 | Households and house tenants committees in buildings | m ² | € |
| 3 | Institutions | m ² | € |
| 4 | Schools, kindergartens, community centres, libraries, sports facilities | m ² | € |
| 5 | Other institutions, health centres, hospitals and organizations | m ² | € |
| 6 | ENTERPRISES AND INSTITUTIONS | | € |
| 7 | Offices and administrative space | m ² | € |
| 8 | Banks and insurance companies, transportation companies and agencies | m ² | € |
| 9 | PTK, PTT, Telecom facilities, IPKO, KEK distribution | m ² | € |
| 10 | Manufacture of metal products, furniture, clothing, footwear, textiles and car repair services | m ² | € |
| 11 | CATERING INDUSTRY, TRADE, HANDICRAFT SHOPS AND TOURISM | | € |
| 12 | Hotels, restaurants, pubs, pizzerias, department stores, shops, shopping malls, supermarkets, agricultural pharmacies | m ² | € |
| 13 | Bakeries, cake-shops, roasted coffee shops | m ² | € |
| 14 | Flower shops, hairdressers, joinery shops, glass cutter shops, handcraft shops, tire-repair services, panel-beater, car mechanics | m ² | € |
| 15 | KIOSKS | lump sum | € |
| 16 | For sale of food (burgers, coffee, biscuits) | lump sum | € |
| | For sale of other goods, newspapers, cigarettes (toys, pottery, jewellery and plastics) | | € |
| | Gas stations | lump sum | € |
| | ECO-TAXES | | € |

In order to create conditions for this type of municipal waste management in the forthcoming period, local governments need to address issues of quantity of beneficiaries commercial waste and cost per m² and its ability to resolve this issue in a sustainable manner.

- The cost of waste removal according to the useful living space per m²
- The total usable area from which waste is collected
- Costs per year
- We remove waste 314 days yearly

The current waste management situation in Gračanica municipality can be summarized as follows:

- Insufficient number of containers
- Lack of an organized database of municipal waste
- Irregular removal of waste
- Lack of containers for selective waste disposal
- Inadequate solid waste management in the municipality
- The existence of illegal landfills and dumps
- Negligent disposal of household waste in the river-beds
- Lack of a good location for a local landfill

3.3.4. Disposal of waste in a landfill

The waste is transported to the regional landfill located 18 km far from Gračanica, which increases costs and makes cost-effective balance impossible, while covering all villages in the municipality of Gračanica Cadastral Zone. Municipal and other waste disposed in the landfill is planned and compacted by bulldozers and transported by special vehicles or by residents themselves. In the summer, occasional spontaneous combustion can happen in unsecured landfills because of the large amounts of waste being transported in tonnes. A particular problem is an uncontrolled disposal of waste of known or unknown origin and of different physical and chemical characteristics.

3.3.5. Illegal landfills and dumps

Illegal landfills are a particular problem in the municipality, especially in rural areas, which are not accustomed to this kind of service, so that all unnecessary things from households they dispose randomly and independently and create landfills and dumps. Department of Environmental Protection has recorded 25 illegal landfills with disastrous impact on the environment and health of Gračanica municipality citizens.



Picture 29 Illegal landfills

Separation of recyclable materials - Recyclable plastic waste is not collected in selective and organized way. For plastic, or PET, there are specially designed containers with a capacity of 1.1 m³, and wired containers with a capacity of 2 m³. Collected packaging is compressed, measured and transported for recycling.

Secondary materials (glass, packages, cans) are not collected, except for by a few private individuals, mostly from Roma community, so that there is no data on exact quantity of collected recyclable materials.

3.3.6. Medical waste

Medical waste is treated in the same way as waste from households, because there are no specially marked containers or a habit disposing this waste hazardous to human health in the manner prescribed by the World Health Organization (WHO) and European Union (EU). Quantity of this waste is unknown, but Gračanica municipality has a large number of health care institutions, meaning that medical waste should be dealt with as a priority.

Picture 30 Medical infectious waste



3.4. TRENDS ANALYSIS AND IMPACT ASSESSMENT OF THE ENVIRONMENT, HEALTH AND STANDARD OF LIVING

3.4.1. Tendencies and trends in waste management

Analysis of the present waste management situation in the municipality of Gračanica and developments in recent years reveals that human health and the environment can be significantly endangered if some radical measures are not taken. Significant progress in improving the situation can be expected if MESP Strategy and regional strategies are combined to implement local plans.

In addition, in order to reduce the impact of municipal waste on the environment and quality of life, it is necessary to develop a plan for the collection of municipal solid waste, rehabilitate existing dumps, organize the removal of illegal landfills and modernize services. Then, it is necessary to improve the principle of municipal solid waste primary selection at the place of its generation, separation and collection of paper, plastic, glass and cans, and strengthen environmental awareness, through action planning, training, education and raising awareness on the value of the collected material.

3.4.2. Impact on the environment, human health and standard of living

The environmental impact of municipal solid waste can be considered from two aspects.

The first is manifested through the fact that provision of waste collection service does not cover sufficient territory of Gračanica municipality. This results in the formation of illegal dumps in uncovered areas, thus creating the risk of infectious diseases in the population, endangering rivers, as well as endangering the environment in its broadest sense.

Other factors are dumps and other municipal waste disposal sites, content of which could endanger the environment in various ways expressed as:

A) Air pollution:

- separation of methane and carbon monoxide;
- spread of dust and odour;
- in periods of no wind, there may be an increased concentration of polluting materials in the air around the landfill.

B) Land pollution:

- prior to exploitation, adequate measures to protect land are not taken; the negative impact (on land, and therefore the groundwater and surface water);
- Endangering the environment by waste blown by air currents;

C) Pollution of ground and surface waters:

- given the proximity of river-beds, the large and frequent atmospheric precipitation results in the influx of ground water flowing from the river-bed in the direction of the landfill, or the interference with the existing filtrate and its outflow to the river-bed and the flowing of one segment of the organic and inorganic pollution along the river watercourse.

3.4.3. Conclusion

Due to the current situation in the municipality of Gračanica, it can be with certainty established that a negative environmental impact exists on all the above aspects. The degree of environmental hazard cannot be qualified as there are no substantiated data due to the lack of measurements and monitoring system. Lack of selecting waste and recycling process further complicate the situation. The situation is complicated by the lack of a monitoring and water treatment system. The problem of the so-called special commercial waste management (materials from oil, chemicals, batteries, tires, building rubble, different packaging, etc.), that is the lack of separating this waste that may contain hazardous substances from municipal waste, must be specifically addressed in future waste management plan of the municipality. It must be emphasized that even small amounts and concentrations of these substances can lead to the contamination of large areas of land and volumes of water. The presence of such substances increases the probability to end up in food chain and negatively impact human health, agricultural production and marketing of products from the entire territory of the Municipality.

Municipal waste is only partially managed in the municipality of Gračanica, while commercial and special waste is not managed at all, which can lead to a significant deterioration of environmental quality and human health.

It is necessary to draft waste management plan for the municipality; medical waste is not treated separately, which can cause the spread of infectious diseases.

Due to the lack of Public Utilities Company (PUC) we are faced with the problem of municipal waste.

3.5. AIR POLLUTION AND HEALTH IMPACT

Hydro Meteorological Institute of Kosovo is responsible for overseeing, through national and local network, air quality in the territory of the Republic of Kosovo and consequently the territory of the Municipality of Gračanica.

Tabela 21. Sadržaj O₃, CO i SO₂ u vazduhu

| Period during 2011 | µg/m ³ | | | | |
|----------------------------|-------------------|----------------|-----------------|---------|------------------|
| | PM10 | O ₃ | SO ₂ | CO | N ₂ O |
| January | 56 | 43.2 | 23.8 | 5049 | |
| February | 45.2 | 50.9 | 25 | 4834 | |
| March | 37.2 | 51.5 | 23.8 | 5049 | |
| April | 38.9 | 54.6 | 23.6 | 4889 | |
| May | 78.6 | 53.3 | 26 | 5009 | |
| June | 41.7 | 50.8 | 28.9 | 5249 | |
| July | 52.3 | 64.7 | 10.7 | 1581 | |
| August | 58.1 | 42.9 | 5.3 | 830 | |
| September | 112.5 | 32.8 | 9.3 | 1571 | |
| October | / | / | / | / | |
| November | 57.83 | 49.41 | 19.6 | 3784.55 | |
| December | 56 | 43.2 | 23.8 | 5049 | |
| Average annual value | 45.2 | 50.9 | 25 | 4834 | No data |

3.5.1. Status of air pollution

Based on information of relevant institution (Hydro Meteorological Institute of Priština), particulate air pollution in the municipality of Gračanica is not processed and this kind of measurement has never been conducted. Large industrial plant of Kišnica mine (FLOTATION), which ceased to operate many years ago, has left two unrepaired tailing dumps that pose a great threat to human health and the ecosystem.

Picture 32 Tailing dump as a source of air and water pollution



Picture 33 Kišnica Mine tailing dumps



Material deposited from the Kišnica mine is the most serious environmental problem of the municipality and the constant threat to environmental degradation. Kišnica-Novo Brdo-Badovac Lead and Zinc Mine Tailing Pond – The accident occurred in September 1988, when about 10,000 m³ of water and tailings flow over the dam and flooded several acres and a dozen houses. The spill over occurred because of negligence during mining operations of Kišnica-NovoBrdo-Badovac Mine, wastewater of which contains a large amount of lead, zinc and other chemical compounds toxic to humans.

The problem of tailings as a source of contamination has not been solved for many years, although there were some studies and projects for revitalization (UNDP). LEAP Working Group has estimated that in addition to this source, the air, water, soil and biodiversity are under negative influence of other sources, such as:

1. Illegal dumps (burning)
2. Emissions of greenhouse gases from cars and chimneys
3. Dust from unpaved roads and tailing ponds

3.5.2. Conclusion

Based on the above issues from the reports of WG in the municipality of Gračanica, it can be concluded that the tailing pond is the biggest air and the environmental pollutant. Since this is a long standing problem, we must find a permanent solution to reduce the negative impact of this source of pollution through complex remediation projects.

The less use of old vehicles and construction of cycling trails would reduce emissions of exhaust gases and thereby air pollution. Central heating and the use of other sources of heating and paving local roads would reduce smoke and dust in the air.

It is necessary for Hydro Meteorological Institute to monitor and measure air pollution. Boilers using solid fuels, coal and wood are causes of air pollution during the heating season.

3.6. PUBLIC GREEN AREAS

Parks in a neighbourhood should be arranged in landscape style, equipped with garden and architectural elements and children playgrounds, planted with native species with the use of highly decorative plants. Street green areas are one of the most important categories of public green space so that all streets with enough space should have avenues of deciduous species, and wider streets should have formed landscape groups of high and low-growing plants of deciduous and evergreen type.

Open areas around school and preschool buildings should meet hygienic, aesthetic and socio-cultural functions simultaneously. Green areas around health facilities and other public green areas should be maintained and extended with decorative forms. Green areas around religious buildings should be constantly maintained and upgraded to a higher level. Open areas around cemeteries, both existing and planned, should also be arranged and upgraded to a park level, with the necessary protective vegetation.

3.6.1. The use of agricultural land

Green areas outside the settlement appear in more than one category. According to the types of vegetation, these green areas could be forest, meadow, agricultural area (field crops, fruits, etc.) and green recreational area.

Forests and other green areas positively change microclimate, by reducing the hazardous effects of sudden fluctuations in temperature and humidity and the effects of wind, which eliminates the negative effects of evaporation and drying of the land.

Protective forest vegetation in the form of emission bands around the settlements is a green area which belongs to the ecological subsystem, and its main functions to reduce the adverse conditions of macro environment: alleviation of dominant winds, reducing industrial pollution, protection from adverse effects of traffic, uniting land and protection from erosion and fire.

Buffer zones provide fresh air and a better organization of recreational activities. Width of the buffer zone within the construction region is modified in relation to the weathervane. These areas can be useful as a tool to limit the illegal construction, but also as a reserve area for future planned expansion of the settlement. Special category under the protection of nature is a protected natural wealth in which green areas, as a rule, represent an important segment. Green areas themselves are often subject to protection.

3.6.2. Current situation and problem of green areas

Forests are the most important form of the vegetation, as an ecosystem with multiple and great value. Green areas in and around a settlement can be classified in accordance with a variety of criteria. Green areas are divided into three groups, depending on the nature of use, size and special purpose:

1. **Green areas of public use** – Available to all residents. This includes most elements of planning, parks, street green areas, and green areas of public buildings.
2. **Green areas of limited use**-This category of green areas is not available to everyone, either because of the nature or because of specific categories of users: green areas of cultural educational institutions, sports and health facilities, etc.
3. **Green areas of special purpose**- Areas with a special task and purpose: water protection zones, plants of protective and land reclamation character, plants along roadsides and cemetery green areas.

3.7. WATER SUPPLY

3.7.1. Review

Existing water supply system began to function at the end of 60-ies of the last century and it covers part of Gračanica settlement and surrounding settlements.

Tabela 22 - Dužina, broj korisnika i kapacitet mreže

| No | Network sections | Network length/m | Number of users | Flow l/s |
|----|--------------------------|------------------|-----------------|-----------|
| 1 | Lipljan- GornjaGušterica | L = 7.300 | 257 | 12 l/s |
| 2 | Lipljan-DonjaGušterica | L = 4.200 | 112 | 2 l/s |
| 3 | Lipljan-Livadje | L = 8.100 | 165 | 2-3 l/s |
| 4 | Lipljan-Dobrotin | L = 7.300 | 145 | 2-2,5 l/s |

Total length of distribution network is 26,900 m, and it is used by 2723 users. Currently, the existing water supply system in the territory of Gračanica municipality is used by 679 families. Business consumers, in the area in which small and medium-sized enterprises are formed, and the newly formed residential neighbourhoods in Čaglavica, Laplje Selo, Preoce and Ugljare settlements contribute to greater consumption of water.

3.7.2. Description of the water supply

Analysis of the existing situation in water supply shows that issue of drinking water has not been resolved in five settlements: Skulanevo, Lepine, Batuse, Suvi Do and Radevo. Individually dug wells, located in settlements, next to the user, usually do not meet defined sanitary requirements for drinking water. These variations are mainly related to the bacteriological and chemical irregularity of water.

3.7.3. Water Quality

Water quality is determined through analysis of water quality data. Samples from the water supply system were taken by a representative of the regional water company Priština, whereas the regularity of water was controlled daily by Hygienic Institute of Health.

Table 23 The quality of urban water samples analyzed for the period 2011-2012, KNIPH

| Month/Year | Municipality | Object | Total number of samples | Chemical analysis Total/adequate /inadequate | % inadequate | Bacteriological analysis Total/adequate /inadequate | % inadequate |
|---------------|--------------|--------|-------------------------|--|--------------|---|--------------|
| October/2011 | Gračanica | KUR | 5/48 | 5/5/0 | 0,00% | 5/5/0 | 0,00% |
| November/2011 | Gračanica | KUR | 4/48 | 4/4/0 | 0,00% | 4/4/0 | 0,00% |
| December/2011 | Gračanica | KUR | 4/48 | 4/4/0 | 0,00% | 4/4/0 | 0,00% |
| January/2011 | Gračanica | KUR | 4/48 | 4/4/0 | 0,00% | 4/4/0 | 0,00% |
| February/2011 | Gračanica | KUR | 4/48 | 4/4/0 | 0,00% | 4/4/0 | 0,00% |
| March/2011 | Gračanica | KUR | 2/48 | 2/2/0 | 0,00% | 2/2/0 | 0,00% |
| April/2011 | Gračanica | KUR | 2/48 | 2/2/0 | 0,00% | 2/2/0 | 0,00% |
| May/2011 | Gračanica | KUR | 2/48 | 2/2/0 | 0,00% | 2/2/0 | 0,00% |

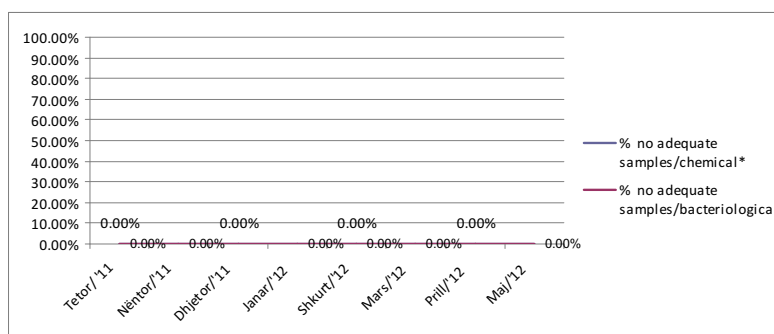


Chart Quality of drinking water- Gračanica 2011-2012

By the end of 2011, the quality of drinking water from Gračanica water system was registered in the Priština region.

The current state of water supply in the municipality of Gračanica is not satisfactory. Excessive pumping of water from Gračanica lake (watering the lawn, a number of commercial buildings, car wash and drought-low water levels) deteriorated the water supply to the population.

3.7.4. Environmental Impact Assessment

Provision of sufficient quantities of hygienic safe water improves living conditions, raises the level of health education, reduces mortality, especially due to infectious diseases, and thus directly increases the average length and quality of life. Poor quality water supply has adverse effects on human health, especially in high risk groups: children, elderly, sick people, pregnant women. The population should be regularly informed through the media about the water system failures, which can have a negative impact on human health. Irrational and excessive use of water leads to water depletion. This lowering of water level has a negative impact on wildlife, and thus on the environment as a whole. Impact is particularly adverse during the dry summer months, when restrictions are introduced.

Conclusions

- Development of the drinking water supply general project throughout the municipality, which includes analysis of water demand in 2012/16 and in the next 20 years.
- Reconstruction and widening of the existing water supply system in two phases.
- Construction of reservoirs for water collection and a natural springs treatment plant.
- Preparation of technical documentation for intervention in the system, which will reduce water loss.

3.8. SEWAGE WASTE WATER

Waste water quality is measured for evaluating the quality of surface and ground water, in order to protect human health and to evaluate the effects of the measures taken on the water pollution level. The municipality of Gračanica is composed of rural settlements, so the coverage with sewage system before the formation of the Municipality of Gračanica was weak. In the period since the formation of the Municipality, Gračanica has built sewage systems in settlements throughout the municipality.

In 2010/2011, sanitary sewage system was built in the municipality

1. Donja Gušterica L = 3542 m
2. Dobrotin L = 80 m
3. Lepina L = 625 m
4. Sušica L = 700 m
5. Gračanica L = 1550 m
6. Kišnica L = 1000 m
7. Laplje Selo L = 2350 m

420 m long storm water sewerage is constructed in Gračanica.

Management and maintenance of the sewer network is entrusted to Priština RWSE. Existing sewer network is a separate one -sanitary sewerage for about 679 households and 450 businesses, and storm water sewerage (420 m, 1075 m and 1000 m) constructed in the centre of Gračanica in 2012. Wastewater sewerage is about 10037 m long, while the storm water one is only 2495 m long. Such a situation leads to a very significant problem, especially in the rainy period when, in the absence of adequate sewerage, storm waters flow into wastewater sewerage, causing congestion and often spill over of canal content. Disposition of sewer network is consistent with the fall of the terrain and is directed towards the main recipients, the Gračanka river, the Ibar – Lepenac irrigation canal, and Prištevka river as a sanitary collector of Priština City. These wastewaters reach the Sitnica River mostly in gravitational way.

Table 24 - Water quality parameters in Gračanica Municipality Rivers in 2008 and 2009

| Parametri | Reka | SITNICA | | | | | PRIŠTEVKA | GRAČANKA |
|--------------------------------|-------------------|---------|--------|-----------|-----------|-----------|-----------|-----------|
| | Mesto Uzorkovanja | Babljak | Lipjan | Vragolija | Plemetina | Mitrovica | Bresje | Vragolija |
| SHBO ₅ | | 2.695 | 1.43 | 4.34 | 3.8 | 4.49 | 18.43 | 6.92 |
| Nitrati | | 1.091 | 2.289 | 3.545 | 4.93 | 11.0 | 10.84 | 2.9 |
| Nitriti | | 0.057 | 0.445 | 0.296 | 0.37 | 0.681 | 0.279 | 0.167 |
| Amonijak | | 0.58 | 3.834 | 1.474 | 4.46 | 2.124 | 22.473 | 2.416 |
| P _{total} (poli+orto) | | 0.133 | 0.621 | 0.397 | 0.51 | 0.435 | 0.670 | 0.400 |

Table 25 Surface water quality in Gračanica watercourses

| Parametri | Reka | SITNICA | | | | | PRIŠTEVKA | GRAČANKA |
|--------------------|-------------------|---------|--------|-----------|-----------|-----------|-----------|-----------|
| | Mesto Uzorkovanje | Babljak | Lipjan | Vragolija | Plemetina | Mitrovica | Bresje | Vragolija |
| SHBO ₅ | | 4.33 | 2.52 | 2.0 | 3.0 | 3.9 | 5.1 | 3.3 |
| P-total(poli+orto) | | 0.133 | 0.29 | 0.229 | 0.388 | 0.400 | 0.474 | 0.227 |
| Nitrati | | 0.9 | 4.90 | 8.500 | 3.570 | 9.300 | 1.380 | 6.250 |
| Nitriti | | 0.13 | 0.41 | 0.452 | 0.364 | 0.548 | 0.275 | 0.419 |
| Amonijak | | 0.48 | 2.58 | 1.176 | 4.047 | 2.053 | 8.582 | 0.939 |

°(Source: Hydro Meteorological Institute of Kosovo) (Source: "Green Agenda", Document, Gračanica Municipality)

3.8.1. Water quality in watercourses

The quality of water in the municipality of Gračanica is a catastrophic, and requires emergency intervention and substantial infrastructure investment. The legacy of dirty industry that technologically was not based on sustainable development, but has sorely abused and directly brutally contaminated resources, has led to significant degradation of the watercourses in the municipality of Gračanica. Also, most of households discharge its waste water into the river, and a number of them into the ground water. When drafting a Gračanica Municipality register of pollutants, the first thing to be done is to categorize pollutants into collective and individual ones.

The evacuation of waste waters in rural areas is still problematic, especially in Batuse, Lepina and Radevo, where the sewage system is a partial or non-existent. Households are supplied with water from their own wells, and waste waters are discharged into primitive septic tanks with absorbent effect or drainage channels to Sitnica, causing the pollution of well waters. According to sporadic analyzes of well waters (check if Institute of Hygiene has any data), the water in most of Municipality settlements does not meet the drinking water standards. It is therefore very important to build as soon as possible the common water supply systems, and then to begin adequate evacuation of the waste waters.

Commercial buildings constructed in the "Business area" and settlements generally do not have equipment for the treatment of their waste waters. Wastewaters originating from dishwashers, individual and group housing facilities, catering, transport and construction flow into wastewater systems and then into rivers that flow through fertile agricultural area.

Wastewaters from Kišnica mine flotation has polluted the Gračanka River water for a long time, and its bed therefore contains various metals hazardous to human health. Further course of Gračanka river-bed is in very poor condition, with overgrown marsh vegetation and unregulated coast, and reception of sanitary waters from the main sanitary collectors and surrounding households has an adverse effect on the environment and poses a constant threat to the health of the population.

Pic. 34. Physical, chemical and microbiological pollution of the river Gračanka



Gračanka flows through the settlements of Kišnica, Gračanica, Laplje Selo and Preoce, empties into Sitnica river (near Vragolija) (residents themselves throw trash into the river: plastic bottles, trash bags)

In our community the potential individual river-bed waters pollutant is Kišnica mine with its flotation, and the tailing pond protected by a failed project implemented by UNDP.

The following table shows the watercourse collective pollutants.

Table 26 Collective pollutants –Gračanica Municipality

| MUNICIPALITY | Settlements | Number of Households | River/Stream |
|--------------|----------------------------|----------------------|------------------|
| GRAČANICA | Gračanica | 1500 | Gračanka |
| | Dobrotin | 300 | Žegovačka Stream |
| | G. Gušterica, D. Gušterica | 550 | Janjevka |
| | Kišnica | 120 | Gračanka |
| | Novi Badovac | 170 | Gračanka |
| | LapljeSelo | 400 | Gračanka |
| | Preoce | 200 | Gračanka |
| | Lepina | 95 | Sitnica |
| | Radevo | 70 | Sitnica |
| | Skulanevo | 100 | Sitnica |
| | Suvi Do | 150 | Sitnica |
| | Batusa | 90 | Sitnica |
| | Sušica | 180 | Sitnica |
| | Livađe | 100 | Sitnica |
| Čaglavica | 100 | Sitnica | |

At the regional level, table shows eight municipalities polluting Prištinka river with their sanitary collectors, 75 of which are collective ones, and specific pollutants from industrial production. Registry of Prištinka watercourses pollutants records 25 of these pollutants. Sitnica, as a Prištinka river basin, is the most polluted river.

Table 27 Collective pollutants – Priština Region

| REGION | MUNICIPALITY | COLLECTIVE POLLUTANT | INDIVIDUAL POLLUTANT |
|----------|--------------|----------------------|----------------------|
| PRIŠTINA | Priština | 12 | 7 |
| | Kosovo Polje | 12 | 2 |
| | Glogovac | 14 | 1 |
| | Podujevo | 9 | 9 |
| | Štimlje | 3 | 0 |
| | Lipljan | 10 | 4 |
| | Obilić | 7 | 1 |
| | Gračanica | 8 | 1 |
| TOTAL | | 75 | 25 |

4. GRAČANICA MUNICIPALITY ACTION PLAN

4.1 Project ranking by priority subject areas

| No. | SUBJECT AREAS/PROJECTS | Priority *** (very) ** (less) * (average) | Deadline and amount of project |
|------------|---|---|--------------------------------------|
| I | AIR POLLUTION AND ITS IMPACT ON HEALTH | *** | |
| 1. | Greening and planting of seedlings within tailings landfill emission band | 7 | |
| 2. | Use of renewable energy sources | 2 | |
| 3. | Afforestation and enlargement of green corridors of other green areas | 3 | |
| II | MUNICIPAL SOLID WASTE MANAGEMENT | *** | |
| 1. | Purchase of containers and establishment of primary municipal waste selection system at the place of its origin | 5 | |
| 2. | Environmental Revision (ER) of situation (UCO) in Municipality Solid Waste Management | 2 | |
| 3. | Extension of collection system (UCO) in rural areas | 2 | |
| III | SEWERAGE AND WASTE WATERS MANAGEMENT | ** | |
| 1. | Regulation of Gračanka river-bed | 4 | 60,000€ |
| 2. | Sewer network | 3 | |
| 3. | Building of separate networks for sewerage and storm water of urban part | | |
| 4. | Building of the collective sewage systems in rural areas/bio surface treatment and septic tank | | |
| IV | WATER SUPPLY | ** | |
| 1. | Construction of local water systems in settlements without access to water system | | |
| 2. | Extension of existing network in urban zone | | |
| 3. | Rehabilitation of existing network in water supply rural area | | |
| 4. | Reconstruction or adaptation of existing wells in Batusa | | |
| V | PUBLIC GREEN AREAS AND UNCONTROLLED USE OF AGRICULTURAL LAND | * | |
| 1. | Regulation of park areas, planting of flowers and grass and their maintenance | | |
| 2. | Access to archaeological sites | | |
| 3. | Testing of arable land, physical and chemical analysis | | |
| 4. | Protection and regulation of agricultural land | | |

Subject areas by priority projects for Action Plan

5. ACTION PLAN

/ AIR POLLUTION AND HEALTH IMPACT

Legal and political activities (Z)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|---|---|
| Z1 | Gračanica | Decision-making for the control of air pollution in accordance with the rules | Adopted Decision on limits of polluted substances emission in the air |
| Z2 | Gračanica | Introduction of air pollution control system in accordance with the decision | Prevention of air pollution |
| Z3 | Gračanica | Documentation on introduced ISO 14000 environmental protection system | Air quality parameters monitoring |

Administration and inspection activities (A)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|---|---|
| A1 | Gračanica | Environmental issues inspectors capacity building and identification of air pollution sources | Number of trained staff |
| A2 | Gračanica | Information campaign on air protection and prohibition of dumps burning(crop residues, stubble) | Prohibitions and air protection awareness of the majority of the population |
| A3 | Gračanica | Implementation of Law on Environmental Impact Strategic Assessment | Conducted Environmental Impact Assessment is a preventive measure in air pollution prevention |

Technical and technological activities (T)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|---|
| T1 | Gračanica | Afforestation and enlargement of green corridors of other green areas | Reduction of particle pollution in the form of dust |
| T2 | Gračanica | Central heating Use of biomass for heating season | Reducing the emission of different pollutants |
| T3 | Gračanica | Use of solar energy: the average monthly insolation Mis 63.80 ss; daily average insolation Dis 5.31 ss; annual average insolation Gis 1938.15 ss | Saving energy, reducing air pollution during the heating season |
| T4 | Gračanica | Afforestation and enlargement of green corridors of other green areas | Positive change of microclimate, while reducing harmful effects |

Z1 Detailed activity implementation plan

| | |
|------------------------------------|--|
| Location | Gračanica |
| Activity | Z1 |
| Name of activity | Decision-making for the control of air pollution in accordance with the rules |
| Objective | Adopted Decision on limits of polluted substances emission in the air |
| Recommendation ¹ | Regulation or Administrative Instruction on emission limit values, the method and terms of measuring and recording |

| | WORK STAGE | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|---|--|-------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Municipal Decision draft and public debate | Municipality, MESP and Donors | 3000 |
| 3 | Approval and publishing of final document | Municipality | 2000 |
| | | Total | 6000 |

¹ Draft Document "Local Environmental Action Plan" – Gračanica 2012

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| 1 | X | | | | | | | | | | | | |
| 2 | | X | X | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | |

Z2 Detailed activity implementation plan

| | |
|------------------------------------|---|
| Location | Gračanica |
| Activity | Z2 |
| Name of activity | Introduction of air pollution control system in accordance with the decision |
| Objective | Decision in accordance with applicable laws and support to penalties at the local level |
| Recommendation ² | Introduce a control system in accordance with the Law on Air Protection |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| 1 | | | | X | | | | | | | | | |
| 2 | | | | x | X | X | | | | | | | |
| 3 | | | | | | X | | | | | | | |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Municipal Decision draft and experts involvement | Municipality, MESP and Donors | 6000 |
| 3 | Approval, debate and publishing of final document | Municipality | 3000 |
| | | Total | 10000 |

Z3 Detailed activity implementation plan

| | |
|-----------------------|---|
| Location | Gračanica |
| Activity | Z3 |
| Name of activity | Documentation on introduced ISO 14000 environmental protection system |
| Objective | Hydro-Meteorological Institute station for continuous monitoring of hazardous gases emissions |
| Recommendation | Application of this standard allows consideration of all inputs, control of technological processes critical points and environmental protection, especially protection against air pollution |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| 1 | | | | | X | | | | | | | | |
| 2 | | | | | | X | | | | | | | |
| 3 | | | | | | | X | | | | | | |

² Draft Document "Local Environmental Action Plan" – Gračanica 2012

A1 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | A1 |
| Name of activity | Environmental issues inspectors capacity building and identification of air pollution sources |
| Objective | The highest level of professional staff for issues of environment, protection of air and health impacts |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|-----------------------------|-----------------------|
| 1 | Training needs assessment | Municipality, MESP | 1000 |
| 2 | Preparation of specific tasks for project implementation | Municipality, Donors | 1000 |
| 3 | Preparations of bid documents and selection of professional companies for implementation | Municipality and Donor | 1000 |
| 4 | Project implementation | Implementing Company, Donor | 3000 |
| | | Total | 6000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| 1 | | | | | X | | | | | | | | |
| 2 | | | | | x | | | | | | | | |
| 3 | | | | | | X | | | | | | | |
| 4 | | | | | | | X | x | | | | | |

A2 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | A2 |
| Name of activity | Information campaign on air protection and prohibition of dumps burning (crop residues, stubble) |
| Objective | Raising awareness and educating the population and information about environmental protection measures and regulations promulgated |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|-------------------------------|-----------------------|
| 1 | Information needs assessment | Municipality | 500 |
| 2 | Preparation of specific tasks for project implementation | Municipality, Donors | 1000 |
| 3 | Selected company, NGO for implementation | Municipality, LC, Donors | 10 000 |
| 4 | Project implementation | Territory of the Municipality | 11 500 |
| | | Total | 6000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | X | | | | | | | | | | |
| 2 | | | | | | | X | | | | | | | | | |
| 3 | | | | | | | | X | | | | | | | | |
| 4 | | | | | | | | X | | | x | | | | x | |

A3 Detailed activity implementation plan

| | |
|-----------------------------|--|
| Location | Gračanica |
| Activity | A3 |
| Name of activity | Implementation of Law on Environmental Impact Strategic Assessment |
| Objective | Conducted Environmental Impact Assessment is a preventive measure in air pollution prevention |
| Recommendation ³ | The municipality is one of the competent authorities responsible for the implementation of the law. Municipality issues approval for plans and programs related to capital construction, development of factories, enterprises and so on. |

| WORK STAGE | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE |
|--|-------------------------------|-------------------|
| 1 Information needs assessment | Municipality | --- |
| 2 Preparation of specific tasks for project implementation and experts inclusion | Municipality, Donors | 10 000 |
| 3 Selected company, NGO for implementation | Municipality, LC, Donors | 1000 |
| 4 Project implementation | Territory of the Municipality | 15 500 |
| | Total | 26 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | X | | | |
| 3 | | | | | | | | | | | | | | X | | |
| 4 | | | | | | | | | | | | | | | X | x |

T1 Detailed activity implementation plan

| | |
|-----------------------------|--|
| Location | Gračanica |
| Activity | T1 |
| Name of activity | Greening and planting of seedlings within tailings landfill emission band |
| Objective | Reduction of particle pollution in the form of dust |
| Recommendation ⁴ | Greening in the form of emission bands around the settlements is a green area which belongs to the ecological subsystem, and its main function is to reduce the adverse conditions of macro environment: alleviation of dominant winds, reducing industrial pollution, protection from adverse effects of traffic, uniting land and protection of erosion and fire |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|--------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Preparation of specific tasks for project implementation | Municipality and Donors | 5000 |
| 3 | Preparation of bids and selection of implementing company | Municipality and Donors | 2000 |
| 4 | Project implementation | Implementing company | 96000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | X | | | | | | | | | |
| 2 | | | | | | | | X | x | | | | | | | |
| 3 | | | | | | | | | X | x | | | | | | |

T2 Detailed activity implementation plan

| | |
|-----------------------------|---|
| Location | Gračanica |
| Activity | T2 |
| Name of activity | Central heating. Use of biomass for heating season |
| Objective | Reducing the emission of different pollutants |
| Recommendation ⁵ | Rural area with high potential of agricultural land which provides sufficient quantities of biomass and makes possible construction of central heating plant with accommodation facility. |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 4000 |
| 2 | Preparation of project documentation and feasibility study | Municipality, Donors | 16 000 |
| 3 | Bids and selection of implementing company | Donators, Company | 1 000000 |
| 4 | Project implementation | Total | 1 020000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | X | | | | | | |
| 2 | | | | | | | | | | | X | x | | | | |
| 3 | | | | | | | | | | | | X | x | x | x | x |
| | | | | | | | | | | | | | | | | X |

T3 Detailed activity implementation plan

| | |
|-----------------------------|--|
| Location | Gračanica |
| Activity | T3 |
| Name of activity | Use of solar energy: the average monthly insolation Mis 63.80 ss; daily average insolation Dis 5.31 ss; annual average insolation Gis 1938.15 ss |
| Objective | Saving energy, reducing air pollution during the heating season |
| Recommendation ⁶ | Renewable sources can provide power for institutions (hospitals, schools, housing buildings, etc.). Generation of photovoltaic energy KWh |

⁵ Draft Document "Local Environmental Action Plan" – Gračanica 2012

⁶ Draft Document "Local Environmental Action Plan" – Gračanica 2012

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|-----------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | MESP, Donors | 3000 |
| 2 | Preparation of project documentation and feasibility study (I subject) | Municipality, Donors | 5000 |
| 3 | Preparation of bids and selection of implementing company | Municipality, Donors | 5000 |
| 4 | Project implementation | Implementing company, Donor | 300 000 |
| | | Total | 313 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | X | | | | | |
| 2 | | | | | | | | | | | | X | | | | |
| 3 | | | | | | | | | | | | | X | | x | |
| | | | | | | | | | | | | | | | X | x |

T4 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | T4 |
| Name of activity | Afforestation and enlargement of green corridors of other green areas |
| Objective | Reduction of the harmful effects of sudden fluctuations in temperature and humidity and the effects of wind, which eliminates the negative effects of evaporation and drying of the land. |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-----------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 2000 |
| 2 | Preparation of bids and selection of implementing company | Municipality, Donors | 1000 |
| 3 | Project implementation | Implementing company, Donor | 30 000 |
| | | Total | 33 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | | X | x | | | |
| 2 | | | | | | | | | | | | | X | | | |
| 3 | | | | | | | | | | | | | | x | | |
| 4 | | | | | | | | | | | | | | X | x | x |

MUNICIPAL SOLID WASTE MANAGEMENT

Legal and political activities (Z)

| Activity | Location | Description | Criteria/Indicators of success (***) |
|----------|-----------|---|--|
| Z1 | Gračanica | Development of municipal solid waste management regulation | Adoption of municipal regulation |
| Z2 | Gračanica | Development of municipal solid waste management plan | Adoption of a waste management plan |
| Z3 | Gračanica | Development of semi-annual report on the state of waste management in the municipality | MESP and municipality residents are informed |
| Z4 | Gračanica | Preparing brochures and guidelines for waste reduction, reuse, recycling, composting and disposal | Residents are better informed on waste cycle |
| Z5 | Gračanica | Development of municipal regulation on environmental taxes and tax on plastic bag, and incentives for environmentally friendly products | Residents pay principle accepted by majority residents |
| Z6 | Gračanica | Administrative instruction to provide conditions for the selective collection of recyclable materials at the place of its origin | Establishment of a recyclable materials collection centre (plastic, paper, glass, etc.) near the supermarket |

Administration and inspection activities (A)

| Activity | Location | Description | Criteria/Indicators of success (*) |
|----------|-----------|--|---|
| A1 | Gračanica | Capacity building for officers, inspectors and staff waste management | Number of trained staff |
| A2 | Gračanica | Public education program, raising awareness on waste management, implementation of the Law | Clean city and positive changes in public |

Technical and technological activities (T)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|--|
| T1 | Gračanica | Environmental Revision (ER) of situation (UCO) in Municipality Solid Waste Management | ER Report adopted with community participation |
| T2 | Gračanica | Extension of collection system (CO) in rural areas | Sustainable solution for all communities and reduction of wild landfills |
| T3 | Gračanica | Purchase of new waste collection and disposal equipment Special vehicles, containers for selective separation | Improved quality of service |

Z1 Detailed activity implementation plan

| | |
|-----------------------------|---|
| Location | Gračanica |
| Activity | Z1 |
| Name of activity | Development of municipal solid waste management regulation |
| Objective | Adoption of regulation in accordance with applicable laws |
| Recommendation ⁷ | Creation of conditions for strategic planning introduction in the waste management area in accordance with MESP |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|-------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Municipal regulation draft and public debate | Municipality, MESP and Donors | 6000 |
| 3 | Approval and publication of final document | Municipality | 2000 |
| | | Total | 9000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | X | | | | | | | | | | | | | | | |
| 2 | | X | | | | | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | | | | |

Z2 Detailed activity implementation plan

| | |
|-----------------------------|---|
| Location | Gračanica |
| Activity | Z2 |
| Name of activity | Development of municipal solid waste management plan |
| Objective | Adoption of a waste management plan |
| Recommendation ⁸ | Draft Municipal Waste Management Plan which is consistent with the central strategy and administrative instruction. |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Preparation of specific tasks for project implementation | Municipality and MESP | 2000 |
| 3 | Publication of the report on the final document adopted plan | Municipality | 4000 |
| | | Total | 7000 |

⁷Draft Document "Local Environmental Action Plan" – Gračanica 2012

⁸Draft Document "Local Environmental Action Plan" – Gračanica 2012

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | X | x | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | | | | | | | X | | | | | | | | | |

Z3 Detailed activity implementation plan

| | |
|-----------------------------|--|
| Location | Gračanica |
| Activity | Z3 |
| Name of activity | Development of semi-annual report on the state of waste management in the municipality |
| Objective | Report will inform MESP and public |
| Recommendation ⁹ | The report on waste management in municipality every six months, as well as informing the population and MESP on waste situation in the municipality |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Experts inclusion in development of semi-annual report | Municipality | 8000 |
| 3 | Publication of the report | Municipality | 3000 |
| | | Total | 12 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | X | x | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | | | | | | | X | | | | | | | | | |

Z4 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | Z4 |
| Name of activity | Preparing brochures and guidelines for waste reduction, reuse, recycling, composting and disposal |
| Objective | Residents are better informed on waste cycle |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 500 |
| 2 | Preparation of specific tasks for project | Municipality, MESP and Donors | 1000 |
| 3 | Project implementation | Municipality | 1000 |
| | | Total | 2 500 |

⁹Draft Document "Local Environmental Action Plan" – Gračanica 2012

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | X | x | | | | | | | | | | | | | | |
| 2 | | X | x | | | | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | | | | |

Z5 Detailed activity implementation plan

| | |
|------------------------------|---|
| Location | Gračanica |
| Activity | Z5 |
| Name of activity | Development of municipal regulation on environmental taxes and tax on plastic bag, and incentives for environmentally friendly products |
| Objective | Adaptation of regulation on waste management environmental tax |
| Recommendation ¹⁰ | Residents pay principle accepted by majority residents |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|--------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 2000 |
| 2 | Preparation of specific tasks for regulation drafting | Municipality and MESP | 4500 |
| 3 | Publishing the report on adopted regulation | Municipality | 2000 |
| | | Total | 8 500 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | X | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | | | | | | | X | | | | | | | | | |

¹⁰Draft Document "Local Environmental Action Plan" – Gračanica 2012

Z6 Detailed activity implementation plan

| | |
|------------------------------|--|
| Location | Gračanica |
| Activity | Z6 |
| Name of activity | Administrative instruction to provide conditions for the selective collection of recyclable materials at the place of its origin |
| Objective | Selective collection of recyclable materials |
| Recommendation ¹¹ | Establishment of a recyclable materials collection centre (plastic, paper, glass, etc.) near the supermarket |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|--------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Preparation of specific tasks for project documentation preparation | Municipality | 3500 |
| 3 | Project implementation | Municipality | 10 000 |
| | | Total | 14 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | X | X | | | | | | |
| 2 | | | | | | | | | | | X | | | | | |
| 3 | | | | | | | | | | | | X | | | | |

A1 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | A1 |
| Name of activity | Capacity building for officers, inspectors and staff waste management |
| Objective | Number of trained staff |
| | The highest level of professional staff for issues of environment and waste management |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|----------------------------|-----------------------|
| 1 | Training needs assessment | Municipality, MESP | --- |
| 2 | Determining number of staff and inclusion of experts | Municipality, Donors | 2000 |
| 3 | Preparation of specific tasks for project implementation | Municipality and Donors | 1000 |
| 4 | Project implementation | Implementing agency, Donor | 15 000 |
| | | Total | |

¹¹Draft Document "Local Environmental Action Plan" – Gračanica 2012

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | x | | | | | | | | | | | | | | | |
| 2 | | X | X | x | x | | | | | | | | | | | |
| 3 | | | | | | X | | | | | | | | | | |
| 4 | | | | | | | X | X | x | x | x | x | X | | | |

A2 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | A2 |
| Name of activity | Public education program, raising awareness on waste management, implementation of the Law |
| Objective | Clean city and positive changes in public |

| WORK STAGE | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|--|----------------------------|-----------------------|
| 1 Information needs assessment | Municipality | |
| 2 Preparation of specific tasks for project implementation | Municipality, Donors | 1000 |
| 3 Selected company, Implementing NGO | Municipality, MESP, Donors | 10 000 |
| 4 Project implementation | Municipality Territory | 10 000 |
| | Total | 21 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | X | | | | | | | | | | |
| 2 | | | | | | | X | X | | | | | | | | |
| 3 | | | | | | | | X | | | | | | | | |
| 4 | | | | | | | | | X | x | X | x | x | x | X | x |

T1 Detailed activity implementation plan

| | |
|------------------------------|---|
| Location | Gračanica |
| Activity | T1 |
| Name of activity | Environmental Revision (ER) of situation (UCO) in Municipality, Solid Waste Management |
| Objective | ER Situation Assessment Report adopted and waste impact |
| Recommendation ¹² | Prepare ER report on waste management in the area, identify the problems and avoid negative impacts on the population and protected areas |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|--------------------------|-----------------------|
| 1 | Experts inclusion | Municipality, MESP | 20 000 |
| 2 | Publishing the first draft and public debates | Municipality and Donors | 2000 |
| 3 | Adoption of the first draft and publishing | Implementing company | 1000 |
| | | Total | 23 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | X | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | x | | | | | | X | | x | | | | x | | | |

T2 Detailed activity implementation plan

| | |
|------------------------------|--|
| Location | Gračanica |
| Activity | T2 |
| Name of activity | Extension of collection system (CO) in rural areas |
| Objective | Sustainable solution for all communities and reduction of wild landfills |
| Recommendation ¹³ | Increase services throughout the territory and reduce risk of pollution with waste |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--|-----------------------|
| 1 | Development of Memorandum of Understanding between municipalities and regional companies | Municipality, MESP, regional company | 2000 |
| 2 | Development of ToR and draft project | Municipality, Donors, regional company | 10 000 |
| 3 | Preparation of public procurement procedures and selection of companies | Municipality, MESP, Donors | 3000 |
| 4 | Project implementation | Selected company, Donor | 30 000 |
| | | Total | 45 000 |

¹²Draft Document "Local Environmental Action Plan" – Gračanica 2012

¹³Draft Document "Local Environmental Action Plan" – Gračanica 2012

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | X | x | | | | | | | |
| 2 | | | | | | | | | | X | | | | | | |
| 3 | | | | | | | | | | | X | x | x | | | |

T3 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | T3 |
| Name of activity | Purchase of new waste collection and disposal equipment Special vehicles, containers for selective separation |
| Objective | Sustainable solution for all communities and reduction of wild landfills |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--|-----------------------|
| 1 | Development of Memorandum of Understanding between municipalities and management company | Municipality, MESP, regional company | 1000 |
| 2 | Preparation of specific tasks for project and selection of implementing company | Municipality, Donors, regional company | 300 000 |
| 3 | Project implementation | Municipality, MESP, Donors | 10 000 |
| | | Total | 311 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | X | | | | | | | |
| 2 | | | | | | | | | | X | | | | | | |
| 3 | | | | | | | | | | | X | | | | | |

SEWERAGE AND WASTE WATERS MANAGEMENT**Legal and political activities (Z)**

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|--|
| Z1 | Gračanica | Draft municipal regulation for implementation of central laws on polluting activities | Reduction of pollution and protection of water resources |
| Z2 | Gračanica | Draft municipal regulation on obligations of business in connection with discharge of used water | Determined number of business as potential pollutants |

Administration and inspection activities (A)

| Activity | Location | Description | Criteria/Indicators of success (*) |
|----------|-----------|---|---|
| A1 | Gračanica | Establishment of professional water and sewerage management service | Maintenance of water system and sewerage |
| A2 | Gračanica | Capacity building for environmental inspectors | Number of trained staff |
| A3 | Gračanica | Information campaign on protection of environment/water resources | Number of business owners and trained residents, published brochures, media and local NGO |

Technical and technological activities (T)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|--|
| T1 | Gračanica | Building of separate networks for sewerage and storm water of urban part | Length of separated network and improved quality of watercourses |
| T2 | Gračanica | Rehabilitation and extension of existing network in urban zone | Increase of collection capacity for discharge into central plant |
| T3 | Gračanica | Rehabilitation of existing and construction of new manholes | Number of manholes |
| T4 | Gračanica | Building of the collective sewage systems in rural areas/bio surface treatment and septic tank | Rural areas with sewage system |
| T5 | Gračanica | Construction of open canals for storm waters in rural zones | Protection and watercourses quality assurance |

Z1 Detailed activity implementation plan

| | |
|------------------------------|---|
| Location | Gračanica |
| Activity | Z1 |
| Name of activity | Draft municipal regulation for implementation of central laws on polluting activities |
| Objective | Development of regulation in accordance with applicable laws and severe penalties at the local level |
| Recommendation ¹⁴ | This project should be a priority for the municipality with the inclusion of key donors, since it represents the first stage in addressing watercourse pollution problem. |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|------------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Inclusion of the draft municipal regulation experts and public debate | Municipality, MESP, NGO and Donors | 10 000 |
| 3 | Approval and publishing of final document | Municipality | 2000 |
| | | Total | 13 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | X | | | | | | | | | | | | | | | |
| 2 | | X | | | | | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | | | | |

Z2 Detailed activity implementation plan

| | |
|------------------------------|--|
| Location | Gračanica |
| Activity | Z2 |
| Name of activity | Draft municipal regulation on obligations of business in connection with discharge of used water |
| Objective | Draft regulation for the protection of watercourses, which is in accordance with central laws and sets out the obligations and penalties for businesses that are potential pollutants in the municipality, also creates the possibility of municipality revenue generation |
| Recommendation ¹⁵ | This project should be a priority for the municipality with the inclusion of key donors, since it represents the first phase in addressing river pollution and waste management problems. |

¹⁴Draft Document "Local Environmental Action Plan" – Gračanica 2012

¹⁵Draft Document "Local Environmental Action Plan" – Gračanica 2012

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|------------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Inclusion of the draft municipal regulation experts and public debate | Municipality, MESP, NGO and Donors | 10 000 |
| 3 | Approval and publishing of final document | Municipality and Donors | 1000 |
| | | Total | 12 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | X | | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | | | | | | | X | | | | | | | | | |

A1 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | A1 |
| Name of activity | Establishment of professional water and sewerage management service |
| Objective | Maintenance of water system and sewerage. Offer of quality services to residents |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|-------------------------------|-----------------------|
| 1 | Service needs assessment | Municipality | 500 |
| 2 | Preparation of specific tasks for service | Municipality, RW | 1000 |
| 3 | Preparation of tender procedures for service providers | Municipality, RW | 10 000 |
| 4 | Selection of service provider | Implementing company Donor | 50 000 |
| | | Total | 61 500 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | X | | | | | | | | | | | |
| 2 | | | | | | X | X | X | | | | | | | | |
| 3 | | | | | | | | x | X | x | | | | | | |

A2 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | A2 |
| Name of activity | Capacity building for environmental inspectors |
| Objective | Inspection, monitoring and reports development training for inspectors, environmental issues training for local police and the court, in order to become more familiar with the law on the protection |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|------------------------------------|-----------------------|
| 1 | Training needs assessment | Municipality | 1000 |
| 2 | Preparation of specific tasks for pilot project | Municipality, Donors | 3000 |
| 3 | Selection of implementing company | Municipality, Donors | 2000 |
| 4 | Project implementation | Municipality, LC, selected company | 10 000 |
| | | | 16 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | X | | | | | | | | | | |
| 2 | | | | | | | X | | | | | | | | | |
| 3 | | | | | | | | X | | | | | | | | |
| 4 | | | | | | | | | X | x | x | x | x | x | x | x |

A3 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | A3 |
| Name of activity | Information campaign on environment/water resources protection measures |
| Objective | Raising residents awareness on environmental protection and its influence on quality of life |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|------------------------------------|-----------------------|
| 1 | Information needs assessment | Municipality | 1000 |
| 2 | Preparation of specific tasks for project implementation | Municipality, Donors | 2000 |
| 3 | Project implementation | Municipality, LC, selected company | 20 000 |
| | | | 23 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | X | | | | | | | | | | | | | | | |
| 2 | | X | | | | | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | | | | |
| 4 | | | | X | | x | | x | | x | | x | | x | | x |

T1 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | T1 |
| Name of activity | Building of separate networks for sewerage and storm water in urban part |
| Objective | Separate networks for sewage and storm water to reduce progressive pollution and improve the quality of flows |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality | 25000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Donors | 1000 |
| 3 | Project implementation | Implementing company | 500 000 |
| | | Total | 526 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | X | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | | | | | | | X | | x | x | x | x | x | x | x | x |

T2 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | T2 |
| Name of activity | Rehabilitation and extension of existing network in urban zone |
| Objective | The main objective is the development of a main waste water collecting system and construction of necessary infrastructure for connection to the treatment plant as a long-term solution |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|------------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 20 000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, RW, Donors | 1000 |
| 3 | Project implementation | Implementing company, Donors | 560 000 |
| | | Total | 563 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | X | | | | | | | |
| 2 | | | | | | | | | | X | | | | | | |
| 3 | | | | | | | | | | | X | | | | | |

T3 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | T3 |
| Name of activity | Rehabilitation of existing and construction of new manholes |
| Objective | The main objectives are to improve waste water system for the wider environment, collect contaminated water as an effective solution for reducing pollution levels of rivers and meet EU standards |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|------------------------------|-----------------------|
| 1 | Development of Memorandum of Understanding between the municipality and a management company | Municipality, Donors | 1000 |
| 2 | Preparation of specific tasks for project and selection of an implementing company | Municipality, Donors | 5000 |
| 3 | Project implementation | Implementing company, Donors | 332 000 |
| | | Total | 338 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | X | | | | | | | |
| 2 | | | | | | | | | | X | | | | | | |
| 3 | | | | | | | | | | x | X | x | | | | |

T4 Detailed activity implementation plan

| | |
|------------------------------|--|
| Location | Gračanica |
| Activity | T4 |
| Name of activity | Building of the collective sewage systems in rural areas/bio surface treatment and septic tank |
| Objective | The main objective are to select an organization for wastewater management in rural areas as an effective solution for reducing the pollution levels of rivers and meet EU standards |
| Recommendation ¹⁶ | This facility should be a priority for the government and the municipality with the inclusion of key donors, since it represents the first stage in addressing wastewater problems |

¹⁶Draft Document "Local Environmental Action Plan" – Gračanica 2012

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|--------------------------|-----------------------|
| 1 | Preparation of specific tasks for project - Identification of location for used water treatment | Municipality, RW, Donors | 15000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Donors | 5000 |
| 3 | Project implementation (for one settlement) | Implementing company | 300 000 |
| | | Total | 320 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | X | | | | | | | |
| 2 | | | | | | | | | | X | | | | | | |
| 3 | | | | | | | | | | | X | | | | | |

T5 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | T5 |
| Name of activity | Construction of open canals for storm waters in rural zones |
| Objective | An effective solution to reduce river pollution with storm water and meet EU standards |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-----------------------------|-----------------------|
| 1 | Preparation of specific tasks for project - Identification of location for used water treatment | Municipality, RW, Donors | 2000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, RW, Donors | 1000 |
| 3 | Project implementation | Implementing company, Donor | 100 000 |
| | | Total | 103 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | | | X | | | |
| 2 | | | | | | | | | | | | | | X | | |
| 3 | | | | | | | | | | | | | | | X | |

WATER SUPPLY

Legal and political activities (Z)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|---|
| Z1 | Gračanica | Draft viability study project for water supply in the municipality, which includes analysis of water needs for 2012-2016 | Sufficient quantities of drinking water |
| Z2 | Gračanica | Draft local plan for improvement of water sector | Identification of problems and possible solutions |

Administration and inspection activities (A)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|--------------------------------|
| A1 | Gračanica | Capacity building for sanitary inspectors and environmental inspectors | Number of trained staff |
| A2 | Gračanica | Awareness campaigns on the protection and conservation of water | Information of water consumers |

Technical and technological activities (T)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|---|--|
| T1 | Gračanica | Construction of local water systems in settlements without access to water system | Number of consumer who can access drinking water |
| T2 | Gračanica | Extension of existing network in urban zone | Increase of the capacity and improvement of water quality |
| T3 | Gračanica | Rehabilitation of existing network in water supply rural zone | Reduction of losses in the system and improvement of water quality |
| T4 | Gračanica | Reconstruction or adaptation of existing wells in Batusa | Improved drinking water supply to Batusa residents |

Z1 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | Z1 |
| Name of activity | Draft viability study project for water supply in the municipality, which includes analysis of water needs for 2012-2016. |
| Objective | To conduct water supply viability study in the municipality, which will identify problems that characterize water issues, propose solutions to these problems and develop water policies in the municipality |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Draft viability study project | Municipality, MESP and Donors | 5000 |
| 3 | Approval and publishing of final document | Municipality | 2000 |
| | | Total | 8000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|--|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| 1 | X | | | | | | | | | | | | | | | | |
| 2 | | X | | | | | | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | | | | | |

Z2 Detailed activity implementation plan

| | |
|------------------------------|---|
| Location | Gračanica |
| Activity | Z2 |
| Name of activity | Draft local plan for regulation of water sector |
| Objective | Preparation of project documentation for the construction of water reservoirs and exploration of new water resources |
| Recommendation ¹⁷ | Prepare project documentation and intervene in the system to reduce water losses. Long-term provision of water supply capacity for the population |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|--------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, Donors | 1000 |
| 2 | Preparation of specific tasks for water sector regulation | Municipality and Donors | 5000 |
| 3 | Publishing draft local plan report | Municipality and Donors | 1000 |
| | | Total | 7000 |

¹⁷Draft Document "Local Environmental Action Plan" – Gračanica 2012

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | X | | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | | | | | | | X | | | | | | | | | |

A1 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | A1 |
| Name of activity | Inspection and water monitoring capacity building for sanitary inspectors and environmental inspectors |
| Objective | The highest level of professional staff for issues of environment and water |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-----------------------------|-----------------------|
| 1 | Training needs assessment | Municipality, MESP | 1000 |
| 2 | Preparation of specific tasks for project implementation | Municipality, Donors | 1000 |
| 3 | Preparation of bid documents and selection of an implementing company | Municipality and Donors | 1000 |
| 4 | Project implementation | Implementing company, Donor | 3000 |
| | | Total | 6000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | X | | | | | | | | | | | |
| 2 | | | | | x | | | | | | | | | | | |
| 3 | | | | | | X | | | | | | | | | | |
| 4 | | | | | | | X | x | x | x | x | x | x | | | |

A2 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | A2 |
| Name of activity | Awareness campaign on the protection, misuse and conservation of water |
| Objective | To raise awareness among customers and create habits for the rational use of water |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|------------------------------------|-----------------------|
| 1 | Information needs assessment | Municipality | 1000 |
| 2 | Preparation of specific tasks for project implementation | Municipality, Donors | 1000 |
| 3 | Project implementation | Municipality, LC, selected company | 3000 |
| | | | 5000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | X | | | | | | | | | | |
| 2 | | | | | | | X | | | | | | | | | |
| 3 | | | | | | | | X | | | | | | | | |

T1 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | T1 |
| Name of activity | Construction of local water systems in five rural settlements without access to water system |
| Objective | To involve residents in the monitored systems, supply good quality water and protect health of people in this region |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|----------------------------|--|--------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality | 1000 |
| 2 | Preparation of bids and selection n of an implementing company | Municipality and Donors | 500 |
| 3 | Project implementation (for one settlement) | Implementing company | 160 000 |
| Total (for one settlement) | | | 161 500 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | X | | | | | | | | | |
| 2 | | | | | | | | X | | | | | | | | |
| 3 | | | | | | | | | X | | | | | | | |

T2 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | T2 |
| Name of activity | Extension of existing network in urban zone |
| Objective | To increase central water supply network coverage, capacity and quality of water supply and improve the living conditions of citizens |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 10 000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Regional water company, Donors | 1000 |
| 3 | Project implementation | Implementing company, Donor | 50 000 |
| | | Total | 62 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | X | | | | | | |
| 2 | | | | | | | | | | | X | | | | | |
| 3 | | | | | | | | | | | | X | | | | |

T3 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | T3 |
| Name of activity | Rehabilitation of existing water supply network and reservoirs |
| Objective | To reduce losses in the system, increase water quantity and improve drinking water supply |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|---|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 5000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Regional water company, Donors | 1000 |
| 3 | Project implementation | Implementing company, Municipality, Regional water company, Donor | 150 000 |
| | | Total | 156 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | X | | | | | |
| 2 | | | | | | | | | | | | X | | | | |
| 3 | | | | | | | | | | | | | | X | X | |

T4 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | T4 |
| Name of activity | Reconstruction or adaptation of existing wells in Batusa |
| Objective | To improve drinking water supply to Batusa residents |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|---|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 1000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Regional water company, Donors | 1000 |
| 3 | Project implementation | Implementing company, Municipality, Regional water company, Donor | 50 000 |
| | | Total | 52 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | | | X | | | |
| 2 | | | | | | | | | | | | | | X | | |
| 3 | | | | | | | | | | | | | | X | x | x |

PUBLIC GREEN AREAS AND UNCONTROLLED USE OF AGRICULTURAL LAND

Legal and policy activities (Z)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|---------------------------------------|--------------------------------|
| Z1 | Gračanica | Development of urban regulatory plans | Regulated neighbourhoods |
| Z2 | Gračanica | Detailed urban plan | Urban environment |

Administration and inspection activities (A)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|--|
| A1 | Gračanica | Protection and regulation of agricultural land | Healthy agricultural land with improved fertility and prevented illegal construction |
| A2 | Gračanica | Forest protection and cadastral marking of boundaries with neighbouring municipalities | Strategic protection planning, maintenance and preservation of the natural elements |

Technical and technological activities (T)

| Activity | Location | Description | Criteria/Indicators of success |
|----------|-----------|--|---|
| T1 | Gračanica | Testing of arable land, physical and chemical analysis | Use of organic fertilizers for healthy food |
| T2 | Gračanica | Regulation of park areas, planting of flowers and grass and their maintenance | Creation of healthy conditions for future generations |
| T3 | Gračanica | Construction of irrigation system | Reduction of irrational consumption of water |
| T4 | Gračanica | Arrangement of picnic grounds with adequate recreational trails (jogging trails, bike paths) | Healthy lifestyle of youth and other age groups |

Z1 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | Z1 |
| Name of activity | Development of urban regulatory plans |
| Objective | Development of plans for all settlements in Gračanica Municipality |

| | WORK STAGE | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|---|--|-----------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 2000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Donors | 1000 |
| 3 | Project implementation | Implementing company, Donor | 100 000 |
| | | Total | 103 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | X | | | | | | | | | | | | | | | |
| 2 | | X | | | | | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | | | | |

Z2 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | Z2 |
| Name of activity | Detailed urban plan |
| Objective | Development of detailed urban plans for larger settlements in Gračanica Municipality |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-------------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, MESP | 1000 |
| 2 | Draft detailed urban plan | Municipality, MESP and Donors | 50 000 |
| 3 | Approval and publishing of final document | Municipality | 2000 |
| | | Total | 53 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | X | | | | | | | | | | | |
| 2 | | | | | | X | | | | | | | | | | |
| 3 | | | | | | X | | | | | | | | | | |

A1 Detailed activity implementation plan

| | |
|------------------------------|---|
| Location | Gračanica |
| Activity | A1 |
| Name of activity | Protection and regulation of agricultural land |
| Objective | Healthy agricultural land with improved fertility and prevented illegal construction |
| Recommendation ¹⁸ | The uncontrolled use of land in the municipality is the result of various anthropogenic activities, so that all categories of agricultural land are jeopardized due to fertilizers and chemicals, as well as illegal construction |

¹⁸Draft Document "Local Environmental Action Plan" – Gračanica 2012

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|----------------------------|-----------------------|
| 1 | Establishment of working group | Municipality, Donors, MESP | 1000 |
| 2 | Preparation of specific tasks for viability study | Municipality and Donors | 15 000 |
| 3 | Publishing viability study report | Municipality and Donors | 1000 |
| | | Total | 17 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | X | | | | | | | | | | | | | | | |
| 2 | | X | | | | | | | | | | | | | | |
| 3 | | | X | | | | | | | | | | | | | |

A2 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | A2 |
| Name of activity | Forest protection and cadastral marking of boundaries with neighbouring municipalities |
| Objective | The municipality of Gračanica due to its geographical position has key natural resources, such as Gračanica Lake and artificial fish pond in Radevo. Because of these key elements make cadastral boundary marking. |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|---|-----------------------------|-----------------------|
| 1 | Marking needs assessment | Municipality, MESP | 1000 |
| 2 | Preparation of specific tasks for project implementation | Municipality, Donors | 1000 |
| 3 | Preparation of bid documents and selection of an implementing company | Municipality and Donor | 1000 |
| 4 | Project implementation | Implementing company, Donor | 3000 |
| | | Total | 6000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | X | | | | | | | | | | | |
| 2 | | | | | x | | | | | | | | | | | |
| 3 | | | | | | X | | | | | | | | | | |
| 4 | | | | | | | X | x | | | | | | | | |

T1 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | T1 |
| Name of activity | Testing of arable land, physical and chemical analysis |
| Objective | Organic production of healthy food on controlled arable areas |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|--------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality | 1000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality and Donor | 500 |
| 3 | Project implementation | Implementing company | 60 000 |
| | | Total | 61 500 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | X | | | | | | |
| 2 | | | | | | | | | | | X | | | | | |
| 3 | | | | | | | | | | | | X | | | | |

T2 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | T2 |
| Name of activity | Regulation of park areas, planting of flowers and grass and their maintenance |
| Objective | 25000 inhabitants of the newly formed municipality deserve nice, modern and clean parks where they can relax, exchange views and come up with new ideas |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|-----------------------------|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 2000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Donors | 1000 |
| 3 | Project implementation | Implementing company, Donor | 30 000 |
| | | Total | 33 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | | | | | X | |
| 2 | | | | | | | | | | | | | | | X | |
| 3 | | | | | | | | | | | | | | | | X |

T3 Detailed activity implementation plan

| | |
|------------------|---|
| Location | Gračanica |
| Activity | T3 |
| Name of activity | Construction of irrigation system |
| Objective | Construction of the water intake and drip irrigation system will lead to higher yields and rationalization of water |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|---|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 5000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Donors | 1000 |
| 3 | Project implementation | Implementing company, Municipality, Donor | 150 000 |
| | | Total | 156 000 |

Implementation Plan

| WORK STAGE | FIRST YEAR | | | | SECOND YEAR | | | | THIRD YEAR | | | | FOURTH YEAR | | | |
|------------|------------|---|---|---|-------------|---|---|---|------------|---|---|---|-------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | | | X | | | |
| 2 | | | | | | | | | | | | | x | | | |
| 3 | | | | | | | | | | | | | | X | x | |

T4 Detailed activity implementation plan

| | |
|------------------|--|
| Location | Gračanica |
| Activity | T4 |
| Name of activity | Arrangement of picnic grounds with adequate recreational trails (jogging trails, bike paths) |
| Objective | Municipality actually needs a sports and recreational ground and healthy lifestyle of youth and other age groups |

| WORK STAGE | | RESPONSIBLE ORGANIZATION | APPROXIMATE VALUE (€) |
|------------|--|---|-----------------------|
| 1 | Preparation of specific tasks for project implementation | Municipality, Donors | 5000 |
| 2 | Preparation of bids and selection of an implementing company | Municipality, Donors | 1000 |
| 3 | Project implementation | Implementing company, Municipality, Donor | 50 000 |
| | | Total | 56 000 |



Republika e Kosovës
Republic of Kosovo
Qeveria e Kosovës
Government of Kosovo
Ministry of MESP and MLGA



REGIONAL ENVIRONMENTAL CENTER

