

***Sector Operational Programme for
Environment and Climate Action***

2014-2020

The former Yugoslav Republic of Macedonia

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Sector Operational Programme for Environment and Climate Action 2014-2020

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1 Sector analysis

1.1 National policy and socio-economic context

The former Yugoslav Republic of Macedonia is a landlocked country, located in the heart of the Balkan Peninsula. It borders two EU member states, Greece to the south and Bulgaria to the east, as well as Serbia and Kosovo* to the north and Albania to the west. It has a total area of 25.713 km², and a population of about 2 million. The average population density is 78.5 residents per square kilometer, of which c. 60 percent live in urban areas. The capital of Skopje is located in the northern part of the country. Other larger cities include: Bitola, Kumanovo, Prilep and Tetovo. The city of Ohrid is the most prominent tourist center in the country, renowned for its natural and cultural uniqueness, for which it was accepted as a Cultural and Natural World Heritage Sites by UNESCO. The country is administratively divided into 84 municipalities, and the city of Skopje, as a separate entity, composing of ten municipalities.

The country has a diversified topography, with high hills and deep valleys, attractively cut and surrounded by mountains, picturesque rivers, large and small natural lakes; it is renowned for its rich biodiversity. The highest peak is located on Mount Korab, with an elevation of 2.764 m. The country has three large natural lakes in the south of the country: Ohrid, Prespa and Dojran. Ohrid is the deepest lake in the Balkans (285m). The largest river, Vardar, flows roughly through in the middle of the country, in a north-south direction. The cultural sites and treasures of the former Yugoslav Republic of Macedonia have a distinct place in family of the world heritage sites.

The country has a relatively open economy with foreign trade accounting for over 90 percent of GDP; thus, it is vulnerable to external developments and has suffered their negative impact several times since the country's independence. The country has now stabilized, and is well advanced in its economic reform agenda process. Still, much remains to be done in the process of enabling and improving the business environment, in order to attract private investors and generate more jobs through private sector led growth.

The former Yugoslav Republic of Macedonia's overriding goal is to join the EU. It was the first country in the region to sign a Stabilization and Association Agreement (SAA) with the EU in April 2001, while in December 2005 the European Council awarded the country a candidate EU member state status.

The former Yugoslav Republic of Macedonia founds its development on the principle of sustainable development, guiding actions that will assure the protection of nature, ecosystems, human well-being and health, while maintaining social and economic development. The most important identified include awareness raising of the pressures on the environment and sustainable use of natural resources, as well as enhancement of knowledge at central and local level towards successful contribution to the global environmental agenda.

The Sector of Environment, *i.e.* Chapter 27, is one of the most complex chapters involving strong efforts of coordination and investment, as well as great responsibilities of the administration, at central and local level. At the same time, it is one of the most expensive chapters in the process of EU accession. Rights and obligations deriving from environmental legislation concern most of the stakeholders in the country, ranging from citizens, as individuals and as part of the collective system, civil society, the commercial sector, local authorities, and various other stakeholders that have an interest in the preservation of healthy environment.

Implementation of the laws in the country takes place within a time frame that allows for gradual compliance with standards. Almost all laws provide for transition periods, during which all stakeholders

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

will be able to prepare themselves adequately to take over the obligations deriving therefrom. Yet, it has been assessed that the implementation of the legislation in this sector is in its initial stage. The goal is to reach the level of law implementation required for full membership in the EU.

1.2 Review of the state of environment in the former Yugoslav Republic of Macedonia

1.2.1 Water

1.2.1.1 Drinking water supply

According to the hydrographical conditions of the country, there are four river basin areas¹ and three major natural lakes². Most surface waters are formed by precipitation. The country is not rich in surface water (about 3.000 m³/capita), and depends mainly on precipitation. Due to the morphological, hydro-geological and hydro-geographical structure of the relief, surface runoff is quickly absorbed into the hydrographical network (rivers, streams and lakes), and flows out of country. Only the karst areas diverge from this general picture; water is retained in the ground for longer periods of time, which recharges the running waters of the river network. In total, the annual available surface water is assessed to be in the order of 6,372 billion m³.

About 4,400 springs with a total annual yield of 992 million m³ are registered, out of which 58 springs have a capacity of over 100 l/s. The former Yugoslav Republic of Macedonia has 21 major reservoirs, with combined total storage capacity of 1.39 billion m³, and an average capacity of 66.0 million m³. A further 28 reservoirs are planned, with a combined storage capacity of 1.44 billion m³ and an average capacity of 51.3 million m³. The largest reservoir currently in operation is Tikvesh, in the middle and lower Crna basin, with a total storage capacity of 360 million m³. The smallest is Lipkovo, in the Pchinja basin, with storage capacity of 1.8 million m³. However, due to lack of systematic and continuous monitoring, groundwater yield data is incomplete.

According to total water demand by users, currently the major water consumer is the irrigation sector, accounting for 46%, minimum accepted flow³ with 28%, then industry with 14%, and the population and tourist consumers with 12%. The same water demand by the river basins is as follows: river Vardar 79% of the total water demand, river Crn Drim basin 12% and river basin Strumica 9% of the total water demand.

Table 1 – Water demand, current situation

River basin	Population	Water demands (thousand m ³ /year)				
		Population and tourists	Industry	Irrigation	Minimum accepted flows	Total water demands
Vardar	1.732.102	185.608	233.025	731.732	457.000	1.607.365
Strumica	120.869	11.511	32.898	117.941	13.000	175.349
Crn Drim	178.576	17.095	8.224	49.662	164.000	243.036
TOTAL	2.022.547	218.269	274.147	899.335	635.000	2.026.751

Source: Expert report on water resources management conducted for the Spatial Plan

Approximately 60% of the drinking water is supplied from karstic springs, 20% from surface waters, and 20% from groundwater.

The total annual consumption of water for the municipal and industrial sectors in the country is 581.8 million m³. Of that total, nearly half (49.3 %) is used for industrial purposes, including mining. Annual

¹ River Vardar, River Crn Drim, River Strumica and River Juzna Morava

² Lake Ohrid, Lake Prespa and Lake Dojran

³Minimum acceptable water flow is a biological minimum which should be constantly available in the river beds for water life preservation; it is defined as 10% of the average discharge of a river

municipal consumption is 141.1 m³ of water per capita, which varies across the country within a fairly narrow range. Water is also used by thermoelectric power plants, for cooling.

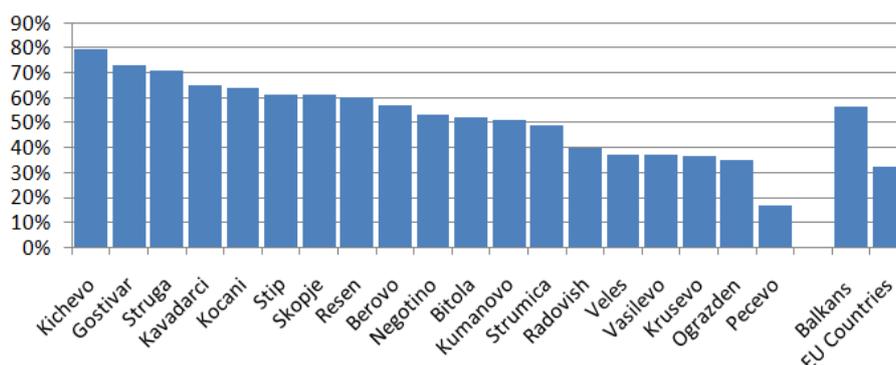
Of the water used for municipal and industrial purposes, 56% is supplied by tapped and captured springs, although this number varies widely by region. In the five regions where reservoirs provide water for municipal and industrial purposes, they supply 59.5 % of the total water supply; nationally, they provide only 13.9 %.

The water supply system is fairly developed. The available data indicates that c. 1.45 million people are connected to a water supply, which represents an average connection rate of 72.5%. The rate in urban areas is higher, where 82% to 100% of the population is connected (1.2 million people). In rural areas, the overall connection rate is lower, ranging from 10% to 100%.

According to the Study on the Situation in the Public Communal Enterprises (Public Utility Companies)_ (May 2004), there is a total of 2209.5 km of mains and distribution pipelines, of which 454.7 km are mains pipelines, and 1754.8 km are distribution network pipelines. 84% of the pipes are older than 15 years, 10% are between 10 to 15 years old, while only 6% of the total network was built less than 5 years ago. In order to improve the quality of raw water, there are 10 filter plants with a total capacity of 6,822 m³/hour, which is approximately 28% of the total volume supplied⁴.

According to IBNet, the share of non-revenue water in the country ranges between 40 to 80%. As highlighted below, on average, cities in the country had higher water losses and collected fewer revenues compared to other cities in the ECA region (see figure below)⁵

Figure 1. Water losses in selected cities in the ECA region



There is no data available on the condition, operational efficiency, maintenance, or financing of rural water supply systems. According to local practice, once the system is put into operation, there is no regular maintenance or monitoring of the network conditions. Only essential repairs are performed as demands arise.

As a whole, the water quality in the country is good, except certain regions which face problems on a local level. The basic pollution of the surface water comes from untreated wastewater discharge from the urban sewerage systems in major settlements, and also from industrial wastewater that is discharged entirely untreated, or is insufficiently treated before being discharged into the rivers.

Water quality is monitored and controlled by the Department for Control of Water Quality at the Republic Institute for Public Health. The chemical quality of drinking water varies depending on the origin of the drinking water source. Almost all karstic and surface waters, as well as significant amounts

⁴The Association of Municipal Communal Enterprises (ADKOM) and the Association of Financial Officers have started collecting basic indicators on enterprise efficiency and financial performance for a considerable number of enterprises, with assistance of GTZ. (Association of Finance Officers of Local Self Government and Public Enterprises (2004) "Study on the Situation in the Public Communal Enterprises with a special review of the level of collection of the claims, the influence of the environment and the economic conditions for management" Skopje, Draft). GTZ is also supporting a pilot benchmarking project in 10 CSEs.

⁵ The Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) is a UN-Water initiative for the former Yugoslav Republic of Macedonia

of well water, are notably deficient in fluoride, on average 0.1 mg/l. Some wells in Veles, Shtip and Kochani have relatively high content of iron and manganese, while the content of nitrates ranges between 1 and 5 mg/l. During summer, higher nitrate concentrations have been found in wells in Prilep and Radovish (10-15 mg/l). Both wells are situated in regions where the land is used for intensive agriculture production. The content of nitrite is generally below 0.03 mg/l. Toxic parameters, such as lead, arsenic, chromium, and cadmium concentrations meet WHO standards. 5% of all wells assessed by the Republic Institute for Health Protection are microbiologically contaminated. Several water-borne epidemics have been observed over the last century, caused by serious failures in the distribution networks combined with poor local hygiene practices and inadequate sanitation (around 70% of urban settlements are connected to the sewage network, whereas in the rural areas the connection rate is only 15%).

The water supply systems are operated and managed by public enterprises established by local authorities. There are also several regional water supply systems⁶, operated by state owned public utilities.

In summary, several problems regarding the current condition of the drinking water supply need to be addressed:

- measures for reducing water shortages in the eastern, southern and central regions of the country (Prilep, Veles, Kumanovo, Kratovo, Kriva Palanka, Tetovo);
- improvement of water quality in Sv. Nikole, Veles, Kratovo and temporary problems that occur in Kavadarci;
- extension of water storage tanks with insufficient capacity, resulting in a shortage of water during peak hours and restrictions of water supply;
- extension and rehabilitation of distribution networks, mains pipelines, water storage tanks, structures and other facilities of the water supply systems ;
- extension of water supply systems in the rural areas;
- reduction of water losses and increase of water use efficiency;
- improvement of human resources able to carry out development and modernization;
- improvement of operations and maintenance of the systems, in particular in rural areas;
- adjustment of tariff to cost recovery levels that account for infrastructure development and maintenance;
- improvement of revenue collection rates of public utilities;
- introduction of regular monitoring of water quality and quantity in rural water supply systems;
- establishment of a national database for all issues related to drinking water supply.

1.2.2 Wastewater collection and treatment

65 agglomerations⁷ fall within the scope of the Urban Wastewater Treatment Directive 91/271/EEC. Thereof, 4 agglomerations are above 100 000 PE, 25 agglomerations have a PE of 15 000 to 100 000, 7 agglomerations - 10 000–15 000 PE, and 29 agglomeration 2 000-10 000 PE. The largest agglomeration in the country is by far the capital city of Skopje; together with its suburban municipalities, it has a PE of approximately 882 000. However, the process of identification of agglomerations is not complete, and will continue with the support of an IPA project financed under OPRD 2007-2013.

With regard to the extent of the constructed sewerage network and waste water treatment facilities, the country lags behind in comparison with the water supply infrastructure. At the national level, the sewerage network comprises of 1 239.1 km of pipelines. From the total number of about 700 thousand dwellings (Census 2002), 65% are connected to a public sewage system, whereas 21% of the dwellings

⁶"Studenchica" for Kichevo, Prilep, Makedonski Brod and Krushevo, "Lukar" for Kavadarci, Negotino and 13 villages and "Debar" for town Debar and several surrounding villages.

⁷ Based on the investigation made during implementation of IPA project for preparation of pipeline of projects for water sector.

have septic tanks: an additional 12% have a system of uncontrolled waste water discharge only. Generally, the existing sewerage systems in major urban areas are designed as a single system, collecting and conveying both wastewater and precipitation water. There are only 12 cities with separate sewage systems. The City of Skopje, as the largest conurbation with the highest production of pollution, has constructed a separate sewage system (534 km) and a storm water system (196 km).

At present, only in 6 agglomerations with over 10 000 inhabitants (Ohrid (Vranishta), Resen, Makedonski Brod, Dojran, Kumanovo and Berovo) have a wastewater treatment plant (WWTP). Three of them are in communities located on the shores of the three large tectonic lakes, Ohrid, Prespa and Dojran, which are of the highest priority in terms of natural protection. Lake Ohrid was declared a World Heritage site by UNESCO in 1979, while a part of Lake Prespa called Ezerani is categorized as IUCN Category I - Strict Natural Reserve. The Ohrid conurbation encompasses the cities of Ohrid and Struga, and several other villages, with around 120 000 inhabitants in total, of which approximately 80% are connected. The WWTP is located in the village of Vranishta, with a built-in capacity for 120,000 PE. The settlements at Lake Prespa, the town of Resen, and the villages of Jankovec, Carev Dvor and Ezerani are connected to the WWTP located in Resen. The WWTP in Dojran serves the towns of Dojran and Nov Dojran. Other WWTPs in operation are in Berovo, Makedonski Brod, Krivogashtani and Kumanovo.

Table 2 – Existing waste water treatment plants

	Urban Waste Water Treatment Plants							
	Dojran	Berovo	Krivogashtani	Kumanovo	M.Brod	Sveti Nikole	Resen	Vranishta ¹
Settlements included	Dojran, Nov Dojran	Berovo Rusinovo	Krivogashtani	City of Kumanovo	Town of Makedonski Brod	Town of Sveti Nikole	Resen, Jankovec, Carev Dvor, Ezerani	Ohrid, Struga, Trpejca, Pestani, Lagadin, Vranishte
No. of inhabitants	3426	8500	6150	105484	7141	18497	16 497	91 272
Sewage system coverage	56%	61%	50%	80%	90-95%	95%	80%	75%
Year of construction	1989	2006	2007	2007	2000	2000	2005	1985/1988
Treatment process*	M, B,C	M, B	M, B	M, B,C	M, B	M, B, C	M, B	M, B
Source of funding	State budget	Swiss Government and State budget	Austrian Government	Swiss Government, EBRD	Government of Austria	USA donation	KfW, Germany	State budget
Capacity (PE)	12,000		3,200	100,000	5,000	15,000	12,000	120,000
Present status	in operation	in operation	in operation	in operation	in operation	in operation	in operation	in operation

* mechanical-M; biological-B; chemical-C;

The oldest WWTPs are those at the lakes, constructed 20 years ago. The treatment processes are now outdated and insufficient in terms of effluent quality. The design capacity is not fully utilized due to incomplete or missing sewerage infrastructure. Almost no investment has been made for required maintenance and repair since they have been in operation, except for the WWTP in Resen, where part of technology was upgraded in 2005 (KfW support), and the WWTP in Ohrid/Struga, where the pumping station of the main collector was repaired in 2008 (Swiss support).

The construction of a WWTP in the municipality of Gevgelija (population 22 988) was due to start in 2012; however, due to delays in the project implementation, construction will only start in 2014, and is expected to be completed in 2017. The construction of a WWTP in Prilep will begin in 2014. Treatment will increase by additional 4.3% after construction of the WWTPs in Prilep and Gevgelija.

As regards other municipalities, there are neither wastewater treatment plants nor simple pre-treatment facilities at all, even though sewerage networks, to some extent, exist. Wastewater is discharged to recipients untreated. The situation is worst in the city of Skopje, the largest conurbation with a population approaching 700 000, where there is no waste water treatment plant. All sewage is discharged untreated into the longest and trans-boundary river Vardar. The public utility company (*Vodovod i Kanalizacija*), responsible for water supply, sewerage and sewage disposal in Skopje, has not been able to draw upon any investment support for upgrading the sewerage network, nor has it been able to increase water tariffs sufficiently to finance such investment.

Table 3 – Waste water volumes and pollution load broken down by river basins

River basin	Wastewater m ³ /year	Urban population kg/day	BOD kg/day	N-tot kg/day	P-tot kg/day	TSS kg/day
Vardar	119 783 943	1 066 533	63 992	13 652	2 453	202 641
Strumica	6 397 115	51 534	3 092	660	119	9 791
Crn Drim	10 576 715	81 901	4 914	1 048	188	15 561
TOTAL	137 252 793	1 119 968	71 998	15 360	2 760	227 993

Source: DPSIR Water – NEAP II

There is no waste water monitoring of influent or effluent municipal sewage system discharge to recipients, except in places with operational WWTPs. However, even in cases where discharge is monitored, there are no restrictions in place, even when discharges exceed the normal limits.

The current condition of the sewage systems varies in certain urban and rural areas. Generally, the systems are rather old, worn out, and the collecting network is constructed of different materials. The pipes are cracked, and there is leakage of the wastewater in the ground. The capacity is very often not sufficient to collect all wastewater. The systems for urban wastewater and precipitation water are not separated, and during floods, pipes are overloaded and suffer from increased pressure.

In the urban areas where the sewage systems are rehabilitated or newly constructed, collection and wastewater disposal is performed efficiently.

Water supply and waste water services are provided mostly by public enterprises established by local authorities. For the time being, there has been no involvement of the private sector in the provision of water and wastewater services, or in the construction of infrastructure in these areas. Generally, public enterprises offer inadequate quality of service, and the infrastructure is old and poorly maintained. An Environmental Investment Strategy (2009-2013) was prepared, providing general planning for environmental investments. However, specific planning documents for the total investments needed and the source allocation for waste water treatment are lacking.

Most of the water operation enterprises suffer from lack of financial resources. Charges for water supply and wastewater collection and treatment (if they exist) in most of municipalities are very low, and in many cases do not even provide for recovery of the operational costs. Besides tariffs that are on an unsatisfactorily low level, an additional problem is the inability to collect legitimate payments in full. In some cases collection rate is only 50%. The determination of tariffs is under the sole responsibility of the public water companies that are controlled by local governments or councils. Low tariffs, insufficient collection rates, and liability of utility companies to pay VAT for provided services which have not been paid by the users lead to lack of revenue, which results in failure to attend to maintenance and repairs, and no possibility for infrastructure extension and improvement. As a consequence, the water infrastructure at present is in poor condition. Apart from the inadequate tariff system, many companies perform other public activities along with the water/wastewater, and the accumulated cash flow from such activities is then reallocated to actions perceived as priority needs. Many public utilities lack sound management, do not pay adequate attention to development, and undertake only essential repairs required to keep the systems functioning.

The operational performance of the existing water utilities can be assessed on the basis of the performance data collected since 2004 under IBNET projects involving 34 Communal Service Providers (CSP) in the country. The situation of the performance of the existing municipal CSPs in the country is summarized here in Table 4

Table 4 –Performance of CSP

Indicator	2008	2009	2010	2011	2012
1.1 Water Coverage (%)	91	91	91	91	91
2.1 Sewerage Coverage (%)	75	74	72	73	73
4.1 Total Water Consumption (l/person/day)	181	172	157	155	158
4.7 Residential Consumption (l/person/day)	133	125	120	119	115
6.1 Non Revenue Water (%)	62	61	64	63	64
6.2 Non Revenue Water (m3/km/day)	116,4	94,3	95,9	88,9	103,4
8.1 % Sold that is Metered (%)	96	94	96	96	96
23.1 Collection Period (Days)	576	633	701	703	730
23.2 Collection Ratio (%)	83	83	84	89	87
24.1 Operating Cost Coverage (ratio)	1,1	1,04	1,09	1,12	1,08

Source: Report of existing situation - Development of National Water Tariff Study (February 2014)

In order to improve the water tariff system, in May 2013 the project “Development of National Water Tariff Study” (financed under OPRD 2007-2013) was launched, with the objective of establishing an economic instrument for the implementation of the first steps of the “polluter pays” principle in the water sector, which is related to further development of financially sustainable water investment projects. The purpose of the project is to prepare a National Tariff Study for development of an economic instrument for balanced water price system and management of financially sustainable water investment projects. Within the framework of the project, the following results should be achieved:

- Development of an economic instrument for balanced water price system and management of financially sustainable water investment project;
- Development of water tariff methodology and water tariff structure, and
- Development of an Action Plan for implementation of the economic instrument.

In order to improve the water management activities under IPA 1 are under way for the preparation of the necessary documentation for construction of WWTPs, as well for rehabilitation and extension of the sewage networks for the municipalities of Prilep, Kavadarci, Bitola, Berovo, Tetovo, Gostivar, Strumica, Debar, Kichevo, Radovish, Kumanovo, Veles, Shtip and the Ohrid region.

A crucial factor in the implementation of infrastructure projects in waste and water sector is the continued support for the Public Utility Companies (PUC), enabling them to strengthen their planning and managerial capacity and establish good financial management practices. Technical assistance is planned under IPA 1 for reform of water supply management, and for PUC collection and treatment services in ten municipalities. It is expected that improvements in these selected PUCs will be achieved by 2017. In addition, PUCs will need support for the implementation of the new Methodology for Water Tariffs. All and all, significant efforts will be needed on both central and local level to fully implement the new water tariff system.

In summary, in order to bring improvement, several problems related to sewage collection and waste water treatment need to be addressed:

- waste water treatment capacities have to be extended considerably;
- sewage networks have to be extended and rehabilitated, and storm water systems separated from the sewage system;

- PUCs economic setup has to be improved to ensure cost recovery and sustainability of operations, including improved tariff setting practices, increased revenue collection rate, etc.;
- human resource capability has to improve and incorporate relevant sector knowledge;
- efficiency of PUCs operations has to increase;
- regular monitoring of the urban wastewater quantities and quality has to be established, and the information system on waste water collection, treatment, discharge improved; public awareness for wastewater as a source of pollution and degradation of the environment has to be raised;

1.2.3 Waste Management

According to the data of the State Statistical Office (SSO), the total amount of collected municipal waste in the former Yugoslav Republic of Macedonia in 2012 was 555 760 tones. Compared to 2011, the total amount of collected municipal waste increased by 1.02%. The highest amount of collected municipal waste was registered in the Skopje Region - 144 593 tonnes, or 26.0% of the total collected amount in the country. Of the total amount of collected municipal waste, 441 223 tones, or 79%, were collected from households, and the remaining 21% from legal and natural persons (commercial waste).

The total amount of generated municipal waste in the country in 2012 was 786 909 tonnes. The annual amount of generated municipal waste in 2012 was 382 kg per person, which is 7.0% higher than the same amount in 2011.

Almost all collected municipal waste (except in Skopje and some other bigger municipalities such as Bitola, Ohrid and Tetovo) is disposed of in landfills, and no other operations for municipal waste treatment are performed.

Table 5 - Generated municipal waste in the former Yugoslav Republic of Macedonia and annual amount of municipal waste per person in 2012

Reference period	Generated municipal waste (in tonnes)	Annual amount of municipal waste per person (in kg)
2008	713 564	349
2009	725 976	354
2010	721 507	351
2011	735 250	357
2012	786 909	382

Regular waste collection services are mainly limited to urban areas, providing up to 90% coverage in cities and their outskirts. In total, around 70% of the total population receives regular waste collection services, while the remaining 30%, residing in rural settlements distant from the main collection areas, manage wastes on their own.

In 2012, with the support of the Swedish Government and implemented by the Swedish Environmental Protection Agency (SEPA) within the project “Capacity Building for Implementation of EU-Landfill Directive – Closure of Non-Compliant Landfills and Inspections”, a Plan for closure of non-compliant landfills was developed. According to the plan, there are 55 municipal landfills, officially provided by the communal enterprises. None of them is a sanitary landfill in compliance with the minimum requirements of the relevant EU *acquis*. Non-compliant landfills have been classified according to the environmental risk: 16 are classified as non-compliant landfills of high risk, 16 as medium risk, and 19 as low non-compliant landfills. At present, the utilization level of the municipal landfills is around 60%. In addition, there are approximately 1 000 smaller illegal dump sites all over the country, created by the local population that does not receive any waste collection service or receives service of insufficient quality.

Of all municipal landfills in operation, only the landfill “Drisla” in Skopje is officially certified as a landfill for communal waste. The capacity of Drisla is 16 000 000 tons. However, management of the landfill, in terms of environment protection, is inadequate. In 2012, the City of Skopje gave under concession the operation of the landfill Drisla, on a PPP basis, to a private company for a period of 35 years.

Equipment for waste handling in landfills is lacking, out-dated, or does not meet required parameters. Handling of waste is therefore ineffective and costly.

Regular separate collection of municipal waste on a large scale does not exist, except in Skopje, where one collection center has been established. On a small scale, there is also separate collection of biodegradable waste in the municipality of Resen (Swiss funded and UNDP implemented pilot project).

Waste collection services are primarily performed by public utilities companies (PUCs), which often provide other communal services such as water supply, sanitation, street cleaning, public landscaping, cemetery maintenance etc. There are only a small number of initiatives for waste collection by private companies, typically for dealing with waste in rural areas. In general, collection, transport infrastructure and equipment are not adequate. There is a shortage of waste containers on the streets, resulting in long walking distances from home to garbage dumps. There are containers for mixed waste only; no containers for separate collection are in place, except for some recycling material, such as paper and plastic, on a very small scale. There is a lack of waste collection garbage trucks, while existing ones are old and worn out. As a result, waste collection is insufficient, the service provided to citizens is inadequate, and not as frequent as needed. Consequently, garbage is heaped around container stands or is dumped slovenly on the streets, which pollutes the environment. In regard of green waste, there are no facilities for composting; all waste is mixed with communal waste and disposed in landfills.

Waste charges are usually determined by floor area of houses or, in case of businesses, floor area of commercial space, ignoring real volume of waste generated. If the public utility is involved in rendering other public services, the revenues from all activities are consolidated and reallocated to various activities as needed. In 2013, the Ministry introduced a new methodology for setting the price for waste services and landfilling, which, if properly implemented, can generate a stable income for operators, and thus provide conditions for sustainable management of the new waste infrastructure. The Methodology has entered in force in January 2014, however, as of yet, no PUC has implemented it.

The Project EuropeAid/128552/C/SER/MK “Strengthening the Central and Local Level Administrative Capacities for Implementation and Enforcement of Waste Management Legislation”, recommended that the implementation of the regional approach should include setting up necessary structures to allow effective, integrated waste management systems. With regards to this issue, the East and Northeast Region (beneficiaries of this project) established Regional Waste Management Bodies (2012). These Regional Waste Management Bodies have the status of a separate legal entity, in order to have rights and obligations and act as a contractual party.

In accordance with this, and in order to prevent the possibility of a limited number of municipalities jeopardising the establishment and operation of an integrated regional waste management system, the Government adopted new Amendments of the Law on Waste Management (Official Gazette No. 123/12), according to which municipalities within a Region must establish an Inter-Municipal Waste Management Board (IMWMB) and Regional Waste Management Centers. Under OPRD 2007-2013, activities for development of Regional Waste Management Plans for the North and North-East Regions are ongoing. Also, the preparation of the documentation necessary for the establishment of a financially self-sustainable waste management system for six regions (East, North-East, Pelagonia, South-West, Vardar and Skopje Regions) is in its initial phase.

Scrap metal represents the bulk of collected recyclables, which is processed by the steel factories “Makstil” Skopje, “Zeleznik” Demir Hisar or are exported out of the country. There is a well-established network of collectors and/or brokers, as well as a strong and stable market for recovered scrap metal. It can be concluded that scrap metal represents almost 80% of collected commodities. Collected and processed ferrous scrap includes cars, household appliances, technological/industrial scrap, discarded

machinery/equipment, and various other steel products deriving from abandoned scrap. Roughly 50% – 60% comes from industrial sources and discarded machinery.

Also, there are several licensed companies for collection and treatment of waste oils and waste tyres. Recovery of types as a potentially recyclable material is not considered to be financially viable under the current conditions.

Hazardous waste, e.g. industrial processing and health-care waste is often mixed and disposed together with municipal waste. There is only one incinerator for medical waste, in Skopje.

The entry into the force of the Law on Management of Packaging and Packaging Waste (LMPPW), Law on Management of Batteries and Accumulators and Waste from Batteries and Accumulators and Law on Management of Electric and Electronic Equipment and Waste from Electric and Electronic Equipment, facilitated the initiation of recycling activities by the business sector, for recyclables such as metals, paper, plastics, batteries and accumulators, as well as old electrical and electronic equipment.

The system of waste management packaging was established in 2010, when the LMPPW entered into force. The Law is fully harmonized with relevant EU legislation in this area. According the Law, the producer has primary responsibility for generated waste, but responsibility also extends to all stakeholders involved in the management process. According to the annual reports submitted to the MoEPP from the collective schemes (four in the country), the total amount of collected packaging waste is 50 662 tons, of which 7947 tones are collected and treated.

Table 6 - Packaging waste put on the market and collected and treated in 2012 (source: MoEPP)

Collective scheme:	1	2	3	4
Total amount of packaging waste put on the market (tones)	40.557	8.263	1.120	682
Total amount of collected and treated packaging waste (tones)	7.595	9,2	211	132
Recycled waste compered with the waste put on the market	18,7%	0,11%	18,8%	19,4%

The figures from the table show that there are some positive effects from the establishment of waste management packaging system, but it is far from satisfactory. The percentage of total packaging waste placed on the market covered by all four collective schemes is still about 50%, which is not satisfactory. The level of recycled packaging waste is also low. Consequently, improvement will require further intensive activities by the state, local authorities, and the business sector. The same applies to waste batteries and accumulators, as well as electronic waste and electronic equipment.

In summary, in order to improve the situation, a number of measures have to be implemented:

- Source separation and secondary separation infrastructure has to be extended in order to comply with the Waste Framework Directive targets;
- Waste collection service coverage has to be extended and collection efficiency improved;
- Waste composting facilities and the system for diverting biodegradable waste from the general waste stream have to be established;
- Collection of electric and electronic equipment waste, batteries and other special waste streams have to be established;
- Landfills compliant with the Landfills directive requirements have to be developed;
- System for hazardous waste separation and treatment have to be established;
- Efficiency of PUCs responsible for waste collection have to be improved, institutional capacities strengthened;
- Human resource capability has to be improved with relevant sector knowledge;
- Implementation of tariff system guaranteeing sustainability of waste management operations has to be ensured;

- Information on all streams of waste has to be improved;
- Public awareness, in particular for source separation and recycling, has to be raised .

1.2.4 Climate change

Acknowledging the importance of the problem of climate change and the necessity of taking effective actions to mitigate the problem of the negative impact of climate change, the former Yugoslav Republic of Macedonia ratified the United Nation Framework Convention on Climate Change (UNFCCC) on December 4, 1997 (Official Gazette No: 61/07), and became Party to the Convention on 28 April, 1998. The Ministry of Environment and Physical planning (MoEPP) was designated as the National Focal Point of UNFCCC, *i.e.* the key governmental body responsible for policy in terms of UNFCCC provisions (Official Gazette No: 61/97).

Furthermore, a National Climate Change Committee was established, as an advisory body for policy-making on issues related to climate change in the country (Official Gazette No. 44/00, 79/03 and 4/04). Responsibilities of the MoEPP in this sector include:

- elaboration of the necessary legal framework to combat climate change;
- setup of the necessary strategic and planning framework;
- cooperation on bilateral, regional and international level, in the joint effort to combat climate change.

As a country that does not belong to the group of highly industrialized countries, the former Yugoslav Republic of Macedonia shares only the common obligations of all Parties to the Convention, which includes preparation and submission of national reports on climate change chapters: a national inventory of greenhouse gases; identification of vulnerable sectors with proposed measures for adaptation to climate change; research and development; education and public awareness; technology transfer. The country has submitted the First and Second National Communication on Climate Change (2003 and 2008). The Government adopted the Third National Communication on Climate Change in January 2014, becoming the first country in the region to do so. The preparation and the adoption of the National Communications on Climate Change is an obligation of the state under the Law on Ratification of the UN Framework Convention on Climate Change (Official Gazette No.61 / 07), Law on Environment, Article 187, and is included in the National Programme for Adoption of the *Acquis Communautaire* (NPAA). The MoEPP is the governmental authority responsible for coordinating the preparatory activities.

A particular challenge for the State is the adoption of EU legislation in the field of climate change, since it requires capacity building on all levels. Introducing legal obligations for different parts of the legislation requires detailed assessments of the potential for reducing emissions in different sectors (energy, waste, agriculture, beverage industry, transport), as well as cost estimates of the same. It is necessary to ensure decoupling of greenhouse gas emissions from the development paths of the national economy, and incorporate measures to mitigate climate change. Furthermore, it is necessary to gradually build capacity for future activities related to emissions trading mechanism, including the establishment of a system for monitoring, reporting and verification of greenhouse gas emissions, which will require the introduction of a set of technical, administrative and institutional measures for collecting and managing data and reporting. It will be necessary to strengthen public and private financial flows for taking measures to reduce and adapt to climate change, as well as technology transfer and capacity building.

The development of the Law for Climate Action and long-term strategy for climate is planned to be elaborated with the support of IPA TAIB 2012.

The state is expected to determine so-called contributions for emission reduction of greenhouse gases by the Summit in Paris in 2015. Within the framework of the III National Communication on Climate Change, and with the support of the Research Centre for Energy and Sustainable Development at the Academy of Science and Arts of the former Yugoslav Republic of Macedonia , analyses have been elaborated for three sets of scenarios, involving different levels of ambition, which will be upgraded with

actions and measures required to apply the most favourable scenario of growth and development. The proposed measures and actions will be harmonized with the targets of the future Energy Strategy responding to the recommendation contained in the last EU Country Progress Report in the field of climate - to harmonize our policy with the EU package on energy and climate 2030. Energy planning is crucial for the segment of greenhouse gas emissions reduction. On one hand, the use of fossil fuels has direct impact on greenhouse gas emissions into the atmosphere, and on the other, the utilization of renewable energy sources and energy efficiency has direct effects on reducing the emissions of these gases and a cleaner environment. Therefore, energy policy and policy for sound environment should contribute jointly to the achievement of the targets for reduced climate change, in a manner that will secure sustainable development.

In summary, in order to improve the situation and comply with climate change commitments, several measures shall be implemented:

- Capacity at the national level shall be strengthened in order to complete legal basis and develop required planning documents;
- Roles of various sectors, in particular the energy sector, shall be identified, and corresponding measures elaborated to reduce greenhouse emissions and ensure adaptation;
- Cost assessment of various measures shall be developed, as well as plans for financing the implementation of such measures;
- Information basis shall be established in order to allow strategic planning and coordinated implementation in priority areas;
- Preparatory steps shall be taken in order to prepare for emission trading scheme;
- Where feasible and not contradicting state aid rules, mechanisms for financial support for implementation of climate change measures shall be elaborated;
- Availability of information to the public and public awareness shall be improved.

1.2.5 Legal framework

Since 2002, the country started the process of harmonization of the environmental legislation with the EU, and new laws on Environment, Nature, Water, Air Quality and Waste Management have been adopted. In addition, separate laws for waste streams of packaging, batteries and accumulators and WEEE have been adopted. Drafting of secondary legislation in the environmental sector as a whole is an on-going process, guided and supervised through NPAA. The country has adopted the legislation important for implementation of projects in waste and water sectors, in particular waste water collection and treatment, as well as solid waste management.

The **Law on Environment** (Official Gazette No.53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13, 187/13), as a framework law in the area of environment, has transposed the segment of the *acquis communautaire* known as horizontal legislation. The Law on Environment (LoE) incorporates the basic principles of environmental protection, on the basis of which relevant environmental management procedures are regulated. They are common to the principles of the laws regulating individual areas of the environment. The LoE regulates the issues of access to environmental information, public participation in environmental decision-making, environmental impact assessment procedure, plans for industrial accidents control, as well as control mechanisms available to environmental inspectors. The LoE places special emphasis on integrated environmental permits, and introducing the system of gradual adjustment to the required standards for integrated pollution prevention and control. Integrated environmental permits contain operational plans, which are a requirement for existing installations to continue their operations. Separate chapters of the LoE deal with Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA), namely the Directive 97/11/EC amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2003/35 is transposed in the Chapter XI of the LoE, and several pieces of secondary legislation. The procedure on strategic environmental assessment (SEA) is prescribed in Chapter X of the LoE and several pieces of secondary legislation. In

accordance with the LoE, the competent authority for implementation of the EIA and SEA procedures is the Ministry of Environment and Physical Planning (MoEPP).

The LoE also establishes the basic principles and legal base for implementation of obligations related to global issues of environment protection, including legal obligation of the country in relation to Climate Action.

The area of nature protection is regulated by the **Law on Nature Protection** (Official Gazette No.67/04, 14/06, 84/07, 35/10, 47/11, 148/11, 59/12, 13/13, 163/13; 41/14), which has been harmonized with the *acquis communautaire* and incorporates the obligations deriving from the ratified multilateral agreements in this area. The Law regulates the protection of the nature through protection of biological and landscape diversity and protection of natural heritage; it has provisions for sustainable utilization of natural resources and prevention of harmful activities by legal and natural persons. The Law also provides a legal basis for the establishment of ecological networks *i.e.* **NATURA 2000**. The Law includes application of provisions contained in other laws referring to the protection of nature. It specifies the procedure for trading protected species of wild fauna and flora, in line with the CITES and provides legal grounds for the protection of species of both national and European importance. The procedure for proclamation of natural protected areas is regulated by the Law on Nature Protection, while proclamation is done by adoption of separate law for each protected area.

The activities concerning the development of the **National Emerald Network** started in 2002. Emerald is a network of Areas of Special Conservation Interest (ASCI), *i.e.* areas of high ecological importance with regard to endangered species and habitat types protected under the Bern Convention, and it is established on the territories of its Parties. Identification of areas is based on several Resolutions and Recommendations. The Emerald Network is an efficient tool for preparation of countries for EU membership in the segment of the implementation of the Habitat Directive (92/43/EEC) and Birds Directive (79/409/EEC), on the basis of which the NATURA2000 network is established.

Presently, the Emerald Network includes 16 areas, and identification of new areas will continue until the network is completed. After that, definition and implementation of conservation measures is planned. This will provide a favourable status for conservation of species and habitats, as well as continuous monitoring.

The following laws governing the **waters sector** are in force:

- Law on Environment;
- Law on Waters (Official Gazette No.87/08, 6/09, 161/09, 83/2010, 51/2011, 44/12, 23/13, 163/13)
- Law on Water Management Enterprises (Official Gazette No.87/2008; 6/2009; 61/2009; 83/2010, 51/2011);
- Law on Drinking Water Supply and Urban Wastewater Drainage (Official Gazette No.68/04, 28/06, 103/08, 17/11, 54/11, 163/13).

The Law on Waters (LoW) was enacted in 2008. It has defined the framework for future water resources management, through transposition of the Framework Water Directive (FWD) 2000/60/EC, Directive 76/160/EEC concerning the quality of bathing water, Directive 91/676/EC concerning the protection of waters against pollution caused by nitrates from agricultural sources, Directive 98/83/EC on the quality of water intended for human consumption, Directive 91/271/EEC concerning urban waste water treatment, Directive 86/278/EEC on sewage sludge, Directive 1976/464/EC on discharge of dangerous substances into the aquatic environment and Directive 75/440/EC concerning the quality required of water intended for abstraction of drinking water.

The LoW regulates issues concerning surface water, including permanent watercourses or streams in which water occasionally flows: lakes, reservoirs and springs, groundwater, coastal land and water habitats and their management, including distribution of water, protection and conservation of water and protection from the harmful effects of water, water facilities and services, organization and financing of water management, as well as the conditions, methods and procedures under which they use or release water.

In order to enable the implementation of the LoW concerning water management, a significant number of secondary legislation was adopted in the past period, transposing the technical requirements of the FWD with regard to the preparation of river basin management plans, manner of preparation of programme of measures, preparation of information and cartographic reviews of water monitoring activities, as well as the methodology for river basins assessment. Additionally, other bylaws have been adopted upon the full entry of the Law in force in 2011, mainly transposing requirements of urban waste waters Directive, Sewage Sludge Directive, part of the requirements of the Nitrates and dangerous Substances Directive. The highest and almost full level of transposition has been achieved for Directives on drinking water and urban wastewaters as well as for FWD.

The following laws governing the **waste management** sector are in force:

- Law on Environment;
- Law on Waste Management (Official Gazette No.68/2004; 71/2004; 107/2007; 102/2008; 143/2008; 124/2010; 51/2011, 123/2012, 147/13, 163/13);
- Law on Management of Packaging and Waste from Packaging (Official Gazette No.161/2009; 17/2011; 47/2011; 136/2011; 6/2012, 39/2012, 163/13);
- Law on Management of Batteries and Accumulators and Waste from Batteries and Accumulators (Official Gazette No.140/10; 47/11, 148/11, 39/12, 163/13);
- Law Management of Electric and Electronic Equipment and Waste from Electrics and Electronics Equipment (Official Gazette No.6/12, 163/13);
- Law on Communal Activities (Official Gazette No.95/12, 163/13, 42/14).

The Law on Waste Management (LWM) provides general rules that apply to the following issues: strategy, plans and program formulation, waste handling procedures, handling of hazardous waste, landfills, incineration and co-incineration of waste, import, export and transit of waste through the national territory, monitoring and data management, information system, financing, supervision and competent authorities, punitive provisions, transitional and final provisions. The LWM has important linkages to other Laws, in particular the Law on Environment, which includes basic issues such as IPPC permits and EIA procedures. The LWM is harmonized with the relevant EU *acquis*. However, full harmonisation will require amending the Law on Waste Management, planned for 2015, in order to transpose the new Waste Framework Directive.

1.3 Socio-economic analysis

The socio-economic analysis of the environment sector is focused on those areas where the highest negative impact to the environment deterioration is currently noted, where the Country is seriously deficient, and where medium term expected actions, although costly, have great potential to improve environmental conditions and contribute to a sustainable economy with the greatest impact on the population and nature protection. Such areas first of all are:

- Drinking water supply
- Waste water collection and treatment
- Solid municipal waste management
- Air quality protection

Summary of the analysis is presented in the SWOT table below.

SWOT analysis. Environment sector

Strengths	Weaknesses
<ul style="list-style-type: none"> • The top-tier of environmental legislation is well founded for all priority sectors. • Competencies for implementation of environmental 	<ul style="list-style-type: none"> • Transposition of EU requirements is not complete. • Lack of the institutional capacity to implement effectively the approximation with EU legislation.

<p>requirements at state level are allocated.</p> <ul style="list-style-type: none"> • Decentralization provides good opportunities for implementation of environmental requirements at regional and local level. • The connection rates to water supply and sewerage networks in urban areas are reasonable, for the short- to medium-term. • The opening up of the waste sector to private operators offers the potential for efficiencies of service provision in response to free market competition incentives • There is already a degree of voluntary recycling of waste, suggesting that the public would be receptive to new initiatives to encourage recycling. • Regional cooperation towards the establishment of integrated regional waste management systems is already beginning. • Establishment of Regional Waste Management Centers has started. • New Methodology and structure of Water Tariff Methodology is being developed. • Feasibility studies for construction of WWTPs and rehabilitation and upgrading of sewage systems are under development and are expected to have adequately prepared projects. • Regional waste management plans for 2 regions are prepared and additional 4 are planned for preparation 	<ul style="list-style-type: none"> • Lack of responsibility for environmental improvements in particular at local level. • Lack of official environmental statistics; • Insufficient enforcement of environmental legislation in particular with regard to permitting. • There is generally a low level of awareness of environmental issues and personal responsibility in regard to these. • Consultation procedures and public participation in environmental policy development and decision making is insufficient. • Limit values for air quality in some cities are periodically exceeded. • The quality of both surface waters and ground waters is being detrimentally affected by the discharge of untreated or inadequately treated sewage. • The existing municipal water infrastructure is in a poor state of repair and insufficient. • Existing waste management infrastructure does not comply with EU requirements. • Investment support and operational revenue generation for the purposes of cost recovery in water and waste sectors is insufficient. • Insufficient investments in environmental infrastructure from domestic sources. • The lack of documents which identify all projects and estimate full cost for implementation of legislation in waste and water sector and the allocation of financial resources for it. • The lack of an overarching strategy for investment in environmental infrastructure. • Limited experience in preparation and implementation of large environment infrastructure projects. • The tariff system does not fully respect the polluter pays principle, tariff setting is being influenced by political set-up at municipal level, collection rates for water and waste service charges are poor. • Poor or insufficient data on water and air quality, generation of waste.
Opportunities	Threats
<ul style="list-style-type: none"> • Approximation of EU environmental requirements establishing good legal basis for environmental improvements. • EU funds, bilateral and multilateral support, IFIs resources are available for capacity building and environmental infrastructure. • TAIEX mechanism is available for exchange of information and experience. • EU Member States are cooperative in transferring experience and knowledge regarding implementation of EU requirements. • Local authorities are getting ready to cooperate 	<ul style="list-style-type: none"> • Lack of support (staffing and resources) from national authorities to establish adequate institutional set-up to implement Chapter 27 requirements. • Qualified staff leaving environmental institutions. • Non-enforcement of the environmental acquis in whole or in part. • Changing political will to support implementation of environmental requirements in particular at local level. • External sources of potential investment support fail to materialize due to a perceived inability on the part of the country to justify and disburse effectively the funds that could be made available.

<p>regionally implementing regional waste management systems.</p> <ul style="list-style-type: none"> • Local municipalities are getting more interested in implementation of projects in water sector, including largest - Skopje municipality. • Increasing interest to Private Public Partnership (PPP) or Private Sector Participation (PSP) in environmental investment as well as in operations. • Maturity of projects being increased by development of preparatory documentation. • International companies are showing interest to work in the country implementing environmental investment projects. • Companies are getting more experience in preparing and implementing environmental infrastructure projects. • Institutional capacity and capability strengthened after implementation of IPA project at local level. • Methodology for tariff setting in water sector is being revised and will establish better background for cost recovery. 	<ul style="list-style-type: none"> • National sources of environmental financing are insufficient. • The Country is dependent upon external financial assistance for the implementation of its own policy in the environment sector. • Local governments do not establish tariffs at required level. • Affordability is too low for establishment of required tariff levels. • Potential unwillingness on the part of IFIs to co-finance infrastructure investments, arising from an internal inability to establish and maintain regulatory tariff structures for water, wastewater and waste management at a level consistent with cost-recovery and debt servicing. • The pace of economic growth could be insufficient in the short-term to service municipal infrastructure investment requirements, either directly or through the repayment of loans. • The tendency of people from rural areas to move into cities in pursuit of work is placing increasing pressure upon municipal water and waste management infrastructure, particularly in Skopje; Municipal infrastructure in cities is unable to keep up with the growth in urban populations. External factors affecting population movements in a way that is not properly taken into account in project design. • Municipal water and waste infrastructure deteriorates; investment support ineffective in the long-term.
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2 Scope of sector approach

Environmental protection and nature conservation are recognised as fundamental constitutional values, which everyone has the responsibility to protect and improve. The situation in the former Yugoslav Republic of Macedonia is similar to that in almost all other countries in the region, and faces the environmental liabilities from the past.

The most problematic areas related to implementation of legislation are water and waste management, nature protection, energy, industrial pollution, risk management, and mitigation of and adaptation to climate change. Furthermore, the administrative capacity, both at central and at local level, is insufficient, particularly in terms of qualifications to implement and enforce the EU legislation on environment, energy and climate change.

In order to achieve implementation of the sector based approach, there is a need to establish full governance over the sector by implementing key conditions. This would mean that the Government together with the Commission would have to work on establishing a proper policy dialogue on key reforms in the environment sector, focus on Acquis alignment and complementary investments, create clear consultation and monitoring mechanisms/frameworks, multi-year and sector budgeting etc.

In order to support a gradual move to the sector approach, with the assistance foreseen under Action 1 of this Programme, a detailed policy roadmap will be prepared and implemented on the basis of relevant strategic documents including the CSP, which will outline over a three year period the main strategic priorities and reforms, accompanied with time bound indicators; support will be also provided to the beneficiary country to develop and agree with the EU on a roadmap describing how and when it intends to meet key requirements for the sector approach.

2.1 National sector policy(ies) /strategy(ies)

EU membership is considered the overriding strategic objective for current development policies in the country. In that sense, the priorities set out in strategic documents, such as the Second National Environmental Action Plan, aim towards meeting the requirements of the EU *acquis* and harmonization of environmental policies.

The National Programme on Adoption of the *Acquis Communautaire* (NPAA) is a key document for the EU integration process. Adopted for the first time in 2007 by the Government, it undergoes revision each year. In December 2013, the seventh revision of the National Programme for Adoption of the *Acquis Communautaire* (NPAA 2014) was adopted. It defines the dynamic of the adoption of the *Acquis Communautaire*, strategic guidelines, policies, reforms, structures, resources and deadlines to be realized /implemented, areas of intervention and the results that are foreseen to be achieved by the country in order to fulfil the requirements for European Union membership. It also presents a tool used for identification of priority areas of intervention.

Several important policy strategic documents in various environmental sectors have been adopted, clearly defining the Government's environmental policy, including:

- National Environmental Action Plan 2006;
- Plan for Institutional Development of National and Local Environmental Management Capacity 2009-2014;
- National Strategy for Environmental Approximation;
- National Strategy for Sustainable Development 2010-2030;
- Second and Third National Communication on Climate Change;
- National Strategy for Health Sector Adaptation to Climate Change
- National Strategy for Waste Management 2008-2020;
- National Waste Management Plan 2009 – 2015;
- National Set of Environmental Indicators;
- Strategy for Energy Development until 2030
- Strategy on Improvement of Energy Efficiency of the former Yugoslav Republic of Macedonia until 2020;
- Strategy for Utilization of Renewable Energy Sources of the former Yugoslav Republic of Macedonia until 2020;
- First Energy Efficiency Action Plan of the former Yugoslav Republic of Macedonia until 2018
- Program for implementation of the Strategy for Energy Development in the former Yugoslav Republic of Macedonia 2013 -2017;
- Strategic Plan for MoEPP 2011- 2013;
- Strategy for Development and Promotion of Hydro meteorological Service 2009-2011;
- National Plan for Ambient Air Protection, 2013 – 2018;
- National Program for Gradual Reduction of Quantities of Emissions of Certain Pollutants at the Level of the former Yugoslav Republic of Macedonia, 2012 – 2020;
- Data Management Strategy adopted by the Government in 2006.

List of policy documents with additional information is presented in Annex I of this document.

The detailed analysis of the state of environment and strategies to improve the conditions in the midterm period has been developed in the Second **National Environmental Action Plan (NEAP)**, adopted in 2006. The NEAP provides general guidelines and directions in the area of environment. In addition to setting up general priorities and goals in different sectors, the NEAP also envisages specific measures and actions that need to be implemented in order to achieve the main goals, such as the continuation of the process of approximation with the EU environmental policy, the integrated management policy as a way of properly overcoming the challenges, the establishment of directions for environmentally sustainable approach, the enhancement of the extent of compliance with the obligations deriving from regional and global agreements, and opening of new perspectives and involvement in the international systems for environment protection. One of the conclusions of the NEAP II is that environmental

investments are needed in order to fulfil the requirements of the *acquis*, especially in the area of waste water treatment and solid waste management.

The Plan for Institutional Development of the National and Local Environmental Management Capacity for the Period 2009-2014 aims to determine the relevant functions and to suggest a mid-term institutional development plan for central administrative bodies and bodies of the local self government having competences in the area of environment. The Plan differentiates and groups specific activities into a general framework of functions under the competence of a certain central or local body, in order to project the necessary administrative capacity. It has the objective of setting out a plan for efficient national environmental management system, and strengthening central administration, ensuring practical implementation of the harmonized legislation and the strategic plans and programmes. The Plan identifies priorities and measures aiming to facilitate the process of transfer of competences from central to local level, increase the implementation capacity of the local self- government, and influence the development of solid connections between central government and local self-government in the area of environment.

In order to achieve sustainability of the communal infrastructure facilities, this document recommends the establishment of a **Regulatory Body for Communal Activities**, which would be responsible for regulating water and waste management tariffs in the public sector. Namely, the need for such a body in the country is based on the prospects of using pre-accession funds of the European Union (such as IPA) intended to financially assist projects in the field of environment that are part of the current and ensuing operational programs for regional development. Notably, in the application for large infrastructure projects in the field of urban wastewater management, in addition to other requirements, it is essential to show that the project is financial sustainable and that users of the services can pay the higher bills for the service of the wastewater treatment.

The National Environmental Investment Strategy for the period 2009-2013 is based on priorities identified in the national strategic documents, and is founded on three pillars: the first is to ensure the necessary funds from national and international sources; the second pillar refers to the allocation of the obtained funds according to clearly defined and agreed priorities; and the third refers to institutional strengthening to ensure efficient and effective implementation of the Strategy. The Strategy suggests establishing an inter-ministerial task force to address the current lack of coordination and to streamline investment activities. This task force has not been established up till now, coordination of investment planning and implementation among line ministries needs to be strengthened, and the responsible departments of the Ministry of Environment and Physical Planning (MoEPP) lack the required capacity within, including for monitoring and evaluation of planned investments.

National Strategy for Environmental Approximation (NSEA) aims to develop a road map for the country in regards to the approximation of the EU environmental *acquis* and likewise contribute to sustainable development of the country. The main objective of the NSEA is to come up with the most acceptable approach for the Government to respond to the extensive obligations arising from the EU environmental *acquis*, additionally contributing to the sustainable development of the country.

In January 2010, the Government adopted ***the National Strategy for Sustainable Development*** for the period 2010-2030, which aims at setting a vision, mission and objectives for economically, socially and environmentally balanced development for the period until 2030.

The National Strategy for Sustainable Development analyses the main constraints for making the country sustainable, which are mainly identified as:

- weak capacity for the cross-cutting and integrated working approach required by the sustainable development principles;
- partially developed legal and regulatory framework to support the implementation of the sustainable development approach;
- insufficient domestic and foreign funds and investments for sustainable development projects and activities, weak banking sector in terms of processing SD based projects.

The Strategy for Waste Management and Waste Management Plan have been adopted, which in accordance with the Law on Waste Management provide the main guidelines for the establishment of

systems for regional municipal waste management, as well as waste management systems for other waste types.

Aiming towards air quality improvement, MoEPP has prepared national strategic documents in which measures for air emission reduction have been defined. The ***National Program for the gradual reduction of the quantities of emissions of the certain pollutants at the level of the former Yugoslav Republic of Macedonia for the period 2012 to 2020 was adopted by the Government in 2012*** (Official Gazette No.107/2012). The program identifies measures for emission reduction of air pollutants such as sulphur dioxide, nitrogen oxides expressed as nitrogen dioxide, ammonia, volatile organic compounds, total suspended particulate matters, and carbon monoxide in the air. The ***National Plan for Ambient Air Protection*** in the country gives an assessment of air quality, defines measures for protecting and improving quality of ambient air in the country, and describes all relevant institutions responsible for the implementation of the five year plan (2013-2018 year) (Official Gazette No 170/2012).

The Ministry of Environment and Physical Planning started the implementation of the IPA project "Development Assistance for the ***Environment and Climate Change Strategy 2014-2020***". The main objective of this project is to assist the Ministry of Environment and Physical Planning with the preparation of the Sector Strategy for Environment and Climate Change 2014-2020, which is expected to be finalized during July 2014, and will examine the following topics:

- Detailed sector assessment;
- Analysis of the level of implementation of the current strategic and planning documents in the sector with recommendations;
- Wide-ranging sector analysis leading to the identification of the main problems within the sector and a vision how to be addressed;
- Definition of the intervention logic in terms of objectives, results, outputs and their indicators;
- Action Plan with detailed description of key tasks and measures, supplemented by milestones, identification of responsible authority/actor; clear timing and timetable for implementation and linkage between the key tasks;
- Resource and financial planning;
- Mechanism for implementation, coordination, monitoring, evaluation and revision with detailed identification of the institutional arrangements
- Mechanism for stakeholders' involvement.

Under the PPF funded project "Development of National Environmental Information System Plan of the former Yugoslav Republic of Macedonia", a strategic concept for the development of the National Environmental Information System is going to be developed, as well as a Plan for Establishment of National Environmental Information System. The Plan, which is planned to be developed by December 2014, will include prioritised measures for system development, timeline, staff, organisation, financing, training, etc.

The Strategy for Promotion of Energy Efficiency was adopted by the Government on 21 September, 2010. The strategy underlines the following objectives: reduction of energy consumption per unit of gross domestic product; increasing energy efficiency in all sectors of the state policy; promotion of new technology with high degree of energy efficiency; promotion of measures for increasing energy efficiency; analysis of the potential for installing high-efficiency co-generation installations, including high-efficiency co-generation installations; introduction of mechanisms to support increased energy efficiency, including feed-in-tariffs for production of electricity in high-efficiency co-generation installations and other support mechanisms; promotion of public awareness about energy efficiency; reducing harmful consequences on the environment caused by the production, transmission, distribution and utilisation of energy.

First National Energy Efficiency Action Plan (EEAP) until 2018 was prepared with the technical support of USAID, and was adopted by the Government on April 5, 2011. The first EEAP determines an overall national indicative energy savings target of at least 9% of the final energy consumption by 2018, calculated on the baseline of average energy consumption in the country during the period 2002-2006

and, it determines a national intermediate indicative energy savings target of 4% for the period of three years, *i.e.* in 2012. In the first EEAP, measures for improvement of the energy efficiency in each of the four sectors of the final energy consumption are proposed: residential sector, commercial and service sector, industry and transport. If sufficient financial support and other conditions are provided for implementation of all proposed measures in the first EEAP, energy savings of 199 ktoe until 2018 can be achieved, which represent around 12% of the average final energy consumption for the period 2002-2006.

Draft National Program for Energy Efficiency in Public Buildings in the former Yugoslav Republic of Macedonia by 2020 (Phase I) has been prepared. The objective of the National Program for Energy Efficiency in Public Buildings is to achieve energy efficiency improvements in the buildings sector and to meet the strategic targets as outlined in the national strategic documents. A major objective of the Program is to provide input for reaching the established indicative target of at least 9% reduction of energy consumption in the country by 2018 compared to the 2002-2006 average energy consumption. Specifically, the Program aims to provide input for the adopted target for reduction of energy consumption of the Commercial and Services sector, as set by the Energy Efficiency Strategy and the NEEAP.

2.2 Institutional setting, leadership and capacity

The Ministry of Environment and Physical Planning (MoEPP) is responsible for the Chapter 27 – Environment. MoEPP is mobilizing all resources necessary to achieve compliance with the requirements of forthcoming EU membership, including compliance of the national legislation with the EU *Acquis*, and to ensure its implementation. The responsibility of MoEPP in the process of EU approximation (coordinated by the Department for EU) consists of four main functions:

- to establish a structure and prepare for the accession negotiation with EU on Chapter 27- Environment and climate change;
- to transpose EU legislation into domestic legislation;
- to introduce an institutional framework and capacity adequate for implementation and enforcement of the environmental and climate change legislation;
- to ensure financial capacity required for the implementation of the adopted legislation including programming and implementation of the IPA assistance.

At present, the MoEPP is organized in nine departments or sectors, further organized in units, as well as three constituent bodies within the MoEPP, *i.e.* the Administration for Environment (AE), State Environmental Inspectorate and Office for Spatial Information System. These bodies operate as separate entities within and under the supervision of the Ministry of Environment and Physical Planning in accordance with legal regulations and other legal acts governing issues in the area of environment. In performing its duties, the Minister is further assisted by a Deputy Minister, by a State Secretary and by thematic State Advisors. The organization chart of the Ministry is presented in Annex II of this document. Since May 2014, the State Environmental Inspectorate has gained legal status, as a separate body within MoEPP.

The Administration for Environment is responsible for implementation of the national policy and supervision of implementation over main environmental issues – air protection, water protection and management, waste management, soil protection and nature protection. It is responsible for application of the main instruments of environmental protection, such as environmental impact assessment, integrated permissions, elaboration of documentation to support implementation activities, expert activities, etc. The Administration for Environment is responsible for the development and management of the Cadastre of Environment and the Register of Pollutants and Polluters, as well as for performing environmental monitoring. The State Environmental Inspectorate is responsible for performing inspections and supervision of legal implementation, and has obligations to employ enforcement measures over natural and legal entities that are subject of supervision.

The Ministry of Transport and Communication (MTC) is responsible for supervision of communal infrastructure of municipalities, being mostly water supply and sewerage networks. Consequently, MTC is to a large extent involved in the construction of water supply and sewerage networks, thus supporting particular municipalities in rural or less developed areas. Support for water supply and sewerage network projects is provided by granting state subsidies to municipalities applying for such assistance. The Ministry has also been managing several water infrastructure programmes supported by international donors.

The Ministry of Health is responsible for exercising control of the quality of drinking water through The Republic Institute for Public Health, which is a body within this Ministry.

Following the process of decentralisation, municipal administrations play an important role in the implementation of the environmental policy in the water and waste sector. Their basic tasks relate mainly to the:

- Development of local programmes for protection of the environment;
- Construction, maintenance and operation of water supply systems, sewerage systems, WWTPs, communal waste collection and disposal;
- Providing public information regarding the state of the environment.

Currently, the entire water and waste infrastructure is owned and managed by the municipalities.

Water supply, waste water collection and treatment and waste management are performed by municipal public utility companies. In many cases, in addition to water and waste management, these utilities also perform all other public services such as street cleaning, public landscaping, cemetery maintenance etc. Public companies specialised in only one activity, *i.e.* water and sewerage management or waste management, exist and operate only in some cities (e.g. in Skopje, the company “Vodovod” is responsible for the operation of water and sewerage systems and the company “Komunalna higijena” is responsible for waste management). Most of the companies operate on a municipal level only; only three of them are regionally based, delivering water supply services to a specific district centre and several municipalities.

As for private sector involvement in such activities, there are only a few entities operating in waste collection, typically handling waste in rural areas, although the Law on Waste Management allows the participation of the private sector in waste management activities. The private sector has been expressing a great interest for participating in waste management, in particular for use of recyclables.

2.3 Sector and donor coordination

The responsibilities related to sector coordination and international environmental cooperation is mostly concentrated within the MoEPP. Among these responsibilities are development and implementation of the environmental policy, and coordination of activities under the NPAA for Chapter 27 – Environment.

The Ministry of Environment and Physical Planning has overall responsibility for Chapter 27 coordination and acts as the Secretariat for Chapter 27 Working Group. The Working Group includes all main institutions responsible for activities under the environment sector, and it comprises of more than 100 members, representatives of various institutions. The Working Group is organised in a way to cover all main subsectors and ensure horizontal coordination of the sector.

The EU Department within the MoEPP has overall responsibility for the coordination of IPA assistance. The Department has five units (I) Unit for Approximation of EU Legislation and Negotiation, (II) Unit for Coordination, Monitoring and Evaluation, (III) Unit for Standards, (IV) Unit for Coordination and Technical Implementation of the Instrument for Pre-accession Assistance (IPA), and (V) Unit for Programming and Monitoring of the Implementation under IPA. The last two units are directly involved in the coordination process within the environment sector, in terms of planning implementation and monitoring of the IPA TAIB projects. The Units are also responsible for implementation of the Regional Development Component under IPA, and coordinates all priority activities agreed in the Operational Programme for Regional Development 2007-2013, as part of the Operating Structure for Regional

Development Component of IPA. Responsibilities include planning, technical implementation and monitoring. Priority Axis 3 of the OPRD remains focused on improving environmental protection through investments in environmental infrastructure, and creating conditions for environment friendly sustainable development.

In addition to IPA planning and implementation related Units, the Department for Multilateral and Bilateral Cooperation is responsible for coordination of activities related to bilateral cooperation with other countries, as well as with international organizations and bodies. This Department coordinates activities regarding GEF and UNDP assistance. The department has two Units, one responsible for bilateral, and the other for multilateral cooperation. It has overall responsibility to keep records of international assistance, keeping a regular register of projects that are implemented in the Ministry.

Projects for assistance are being proposed by the Department for EU within the MoEPP in cooperation with other Departments of the MoEPP and the local administration. The staff of the EU Department has received relevant IPA trainings to develop, prepare, implement, monitor and evaluate projects and to ensure appropriate analysis and reporting on the projects.

Several lessons can be drawn from the experience of implementation of IPA and other assistance projects in previous period, which have to be considered for further improvement of coordination and capacity building:

- Identification of assistance needs was not a systematic process, and was based more on demand from donors rather than internal policy planning outcome;
- Exchange of information among institutions inside the Environment Sector and within the leading institution – the MoEPP - was not sufficient;
- Institutional capacity for management assistance was not sufficient, in particular for IPA projects (identification, preparation, participation in implementation, supervision) both at central and local level;
- Coordination of activities among on-going projects was not sufficient;
- Limited experience of IPA Units but mainly of other Departments at the MoEPP and other sector institutions related to development of Project Identification Sheets, ToRs, and other project identification and implementation related documentation for IPA and other donor assistance.

Several steps have been already taken to address these shortcomings; some will be implemented in the nearest future.

The strategic planning of IPA II through the Country Strategy Paper together with the Sector Strategy for Environment and Climate Change (currently under preparation) will improve the strategic approach to identification of needs that support main policy priorities. These documents are based on the priorities identified in the Progress Reports and the Accession Partnership, and take into account past and on-going EU assistance, as well as the national planning documents. In addition, several policy papers will be developed during implementation of IPA II, which will considerably improve the identification, priority setting and needs identification process.

In view of the above mentioned, it is vital that the MoEPP together with other ministries, departments and stakeholders in the environment sector continue improving their coordination efforts to ensure a smooth mechanism for international environmental and climate cooperation. Furthermore, requests for foreign aid from multilateral and bilateral donors can be additionally improved on the basis of improved cooperation among the departments within the MOEPP, by avoiding submission of similar requests to different donors. For better coordination of IPA assistance in regards to planning and implementation, the Minister of Environment and Physical Planning adopted a Decision for establishing an IPA Coordination Working Group within the MoEPP. In order to provide better local level coordination and cooperation, a consultation body was established within the Association of the Units of Local Self-Government for initiating proposals to be financed under the Instrument for Pre-accession Assistance.

The next step in improving coordination is to establish mechanisms for improved information exchange and communication between environment sector institutions and the donor community. The MoEPP will take the initiative to organise a **Sector Working Group for Environment and Climate** (SWGEC) with

the aim of strengthening inter-institutional cooperation and ensuring efficient coordination of activities related to programming and monitoring of EU funds, other bilateral and multilateral assistance, and proposing relevant measures and activities in the environment and climate sectors. It will have an essential role in providing support to different donors when assistance needs and available resources are discussed and possibly agreed. SWGEC will be led by the MoEPP, and will be composed of representatives from the main national institutions and lead donors in the country, such as EU Delegation, IFIs and other international organizations and bilateral donors. The national institutions that are going to be invited to participate in the SWGEC include: the Secretariat of European Affairs, CFCD, Ministry of Economy – Energy Department, Ministry of Health, Ministry of Transport and Communication, Ministry of Finance and Ministry of Local Self Government. It will be also proposed for ZELS and representatives from NGOs to take part in the Working Group activities. The terms of Reference for the establishment of SWGEC will be presented for discussion to relevant institutions by September 2014. At least two general meetings per year are foreseen. Specialised meetings (on topics identified by the Working Group members) may be organised on demand.

The above elaborated, as well additional activities for improving coordination and implementation are summarised in the Road Map attached as Annex III to the Programme.

2.4 Mid-term budgetary perspectives

Within the regular annual process of planning and execution of the national budget, the MoEPP foresees activities and financial resources for areas that will be covered by this programme. The budget is planned for one coming year with mid-term projection for the next 2 years.

In that respect, the overall financial allocations defined in the national budget are as follows:

- For the sub-sector water management, approximately 7 745 thousand EUR for 2014, 7 800 thousand EUR for 2015 and 10 000 thousand EUR for 2016 are projected;
- For sub-sector waste management, approximately 100 thousand EUR for 2014, 500 thousand EUR for 2015 and 1 000 thousand EUR for 2016 are projected;
- For sector nature approximately 120 thousand EUR for 2014, 150 thousand EUR for 2015 and 180 thousand EUR for 2016 are projected;
- For sector Air Quality, approximately 70 thousand EUR for 2014, 160 thousand EUR for 2015 and 500 thousand EUR for 2016 are projected.

It is difficult to identify the total budget for climate change, because such activities have been implemented by various responsible institutions, such as: Ministry of Agriculture, Forestry and Water Economy, Ministry of Health and Ministry of Economy.

2.5 Performance assessment framework

The MoEPP monitors the implementation of its sector strategies and the Strategic Plan of the Ministry, which is updated annually.

The sector monitoring system is comprised of a number of other elements, such as:

- regular monitoring and annual review of the NPAA, which covers legal harmonization and implementation in the environment sector; monitoring of the fulfilment of the Strategic plan of the MoEPP;
- monitoring of the implementation of the Working Programme of the Government and Working Programme of the MoEPP, which entails activities on environment and climate change
- project level (line institutions, CFCD) and program level monitoring of activities within the framework of IPA TAIB, Sector committee for regional development component and

the overall joint IPA Monitoring Committee (sector activities which have been supported through IPA assistance);

- implementation of obligations under SAA monitoring within the framework of the Stabilization and Association Committee and the respective Sub-Committee on transport, environment, energy and regional development.

In addition, following the rules and procedures for monitoring under Decentralized Management (DM), on the spot checks will be performed during the implementation of the project by the SPO/IPA coordinator, CFCD and monitoring officers under IPA structures of the MoEPP. As part of the contract management activities, regular monitoring of the implementation will be done through the Steering Committee meetings and regular reporting by the Contractor.

2.6 Public finance management

Adverse economic conditions have negatively affected public finances, as the state budget deficit expanded to -2.5% in 2011 from below 1% prior to 2009. Nevertheless, public finances remain solid. The financial sector was also affected negatively by the worsened business conditions; private credit growth rates declined significantly but nonetheless remain at levels above 5%.

The unemployment rate has continued its downward trend even after 2009, but is still at levels which present and important economic and social challenge. Women remain at a particularly disadvantaged position, with a labour participation rate of just below 45% in 2011, in comparison with men, which stands at nearly 70%. On the other hand, high unemployment rates and low activity rates of the women unveil an important extensive growth factor for the country's economy.

Labour, however, is estimated to have had a marginal contribution to economic growth, and might therefore provide a considerable source for growth, if certain structural weaknesses of the country's economy are overcome. Positive prospects for EU accession have also contributed to real income convergence and further integration of the country's economy with EU.

2.7 Macro-economic framework

The former Yugoslav Republic of Macedonia is a middle-income, small, open economy with GDP of EUR 3 600 per capita. Economic growth averaged over 5% p.a. in 2005-2008, but dropped to 1.6% in the past few years. GDP growth slowed down significantly to an estimated 0.5% in 2012, but growth prospects for 2013 are favourable, as the economy shows signs of recovery, based on short-term indicators of industrial output and business surveys. While domestic demand had a major contribution to economic growth prior to the downturn, in 2009 and 2010 weaker performance of imports as compared to exports drove GDP growth upwards. As a result, current account balance improved significantly. External shortfalls narrowed from nearly 13% in 2008 down to 2% in 2010 and 3% in 2011.

The slowdown in economic activity since 2009 positively affected inflationary and current account pressures, but affected negatively the financial and budgetary sectors. Inflationary pressures eased down considerably. Consumer prices declined in 2009 and increased moderately in 2010 and 2011. Current account dwindled as well, but FDI inflows contracted to around 2% of GDP in 2009 and 2010. Still, they increased to 4.5% in 2011. Gross external debt also expanded to nearly 65% of GDP in 2011, among others also due to the decline in GDP. External sector however remained stable, as measured by the coverage of imports with the gross foreign reserves.

2.8 Overall assessment

The Environmental sector in the country is defined as consistent with the Chapter 27 and includes:

- Horizontal legislation
- Air quality
- Waste management
- Water quality

- Nature protection
- Industrial pollution control
- Chemicals
- Noise
- Forestry
- Climate change

As can be seen from the assessment above, the **Environment Sector has all the main basic elements of the Sector Approach**. Sector policy is guided by the Second National Environmental Plan, upon which other planning documents are built, including the Strategy for Environmental Investment, sectoral strategies (for water, waste, nature, air, environmental monitoring) and other planning documents at central and local levels. Additionally, in the area of climate change, the Third National Communication on Climate Change determines the strategic directions, measures and actions towards climate change reduction and mitigation. Policy in the sector will soon be updated by the *Sector Environment and Climate Change Strategy 2014-2020* which is under development.

The sector of environment, *i.e.* Chapter 27, is one of the most complex chapters requiring strong efforts for coordination, investments and great responsibilities of administrations at central and local level. The Ministry of Environment and Physical Planning is the lead institution in terms of approximation of the environmental *acquis* across the sector, and leads preparatory activities for negotiation of Chapter 27. The Ministry is also responsible for overall coordination of assistance to the environmental sector and is committed to further strengthening this function, by establishing a Sector Working Group for Environment and Climate aimed at strengthening inter-institutional cooperation and ensuring efficient coordination of activities related to programming and monitoring of EU funds, other bilateral and multilateral assistance, and proposing relevant measures and activities in environment and climate sectors.

The budget is planned using 3 year planning periods in conformity with the mid-term budgetary perspective. The performance assessment framework consists of several monitoring mechanisms, which are established and functioning. Public finances are managed according to the management system that ensures that policy priorities have a chance to be reflected in budget allocations, and that actual expenditure is in line with the approved budget and does not exceed what the government can afford to spend in view of available resources. The macroeconomic policy is providing a stable environment for the sector and predictability of resource levels is being improved.

3 Objective(s) of the IPA sector support

Taking into consideration the analysis of the situation in the former Yugoslav Republic of Macedonia and the last EC Country Progress Report on national and EU membership priorities, the following needs can be formulated:

- Implementation of the existing legislation needs improve significantly, particularly in regards to water and waste management, air quality management, industrial pollution control, nature protection and climate change;
- Administrative capacity needs to strengthen significantly, , both at central and local level;
- Investment in the sector needs to increase significantly , especially in the waste and water sectors; an investment pipeline linked to strategic priorities needs to be developed and maintained;
- Implementation of the climate policy of the country needs significant efforts, particularly for strengthening administrative capacity, transposition of climate *acquis* and providing financial resources for implementation of priority measures.

Based on the abovementioned, the **overall objective** of the Multiannual Programme for IPA Sector Environment is to contribute to a cleaner environment and improved quality of life through sound management of natural resources and reduction of pollution.

The Specific objectives are:

Specific objective 1: to strengthen multiannual planning, legal reforms and institutional building related to approximation of environmental protection and climate action requirements;

Specific objective 2: to increase access to EU requirements compliant drinking water and waste water treatment services and improve regional waste management systems;

Specific objective 3: to support implementation of pilot measures contributing to sustainable development principles.

4 Operational features of the programme

4.1 Geographic and thematic concentration

The assistance for the environmental sector as whole will be concentrated on thematic basis. Three main themes of actions include:

1. Approximation of requirements including transposition, implementation planning and institutional capacity development
2. Development of priority environmental infrastructure
3. Implementation of sustainable development principles

Most of the technical assistance will be targeted to complete transposition, strengthen institutions and develop implementation plans in order to prepare country's environmental sector for accession. Priority sub-sectors will include water and waste management, nature protection, air quality and industrial pollution, and climate change.

Two main sub-sectors will mostly benefit from investment into environmental infrastructure. As assessment of approximation costs indicate, the water management sector will be the most expensive to align with EU requirements. Particular concern is related to waste water management infrastructure, both as regards collection systems and treatment facilities. The indicative allocation for development of the water infrastructure will be about 70% of all IPA investment funds, mainly for extension of sewage networks and construction of waste water treatment facilities. Waste management is planned to receive about 30% of the overall investment funds, which will be directed to development of regional waste management systems.

4.2 Interaction of the programme with IPA II programmes in other sectors

This programme is not expected to have strong interactions with other programmes under IPA II. The design of this programme is focused on the environmental and climate action *acquis*, and can be implemented as a standalone sector. The interaction is most likely to occur when activities that are implemented under other programmes will require proper attention to environmental requirements. This mainly concerns development and implementation of infrastructure projects. For projects that have a significant impact on environment, preparation of Environmental Assessment Study and public participation shall be ensured in accordance with the EIA Directive. Proper attention shall be paid that environment requirements are properly considered in calls for proposals, selection of projects, development of documentation and implementation of projects. . Projects documentation will need to include environmental impact assessment reports and respect energy efficiency standards. Where appropriate, when IPA II measures include development of programme and planning documents, requirements for strategic environmental assessment shall be considered.

The closest interaction is expected with the Programme for Local and Regional Competitiveness and its action for 2014 related to Local and Regional Competitiveness in tourism. Close coordination shall be established between the MoEPP and the Ministry of Local Self Government in the selection of projects, by including the MoEPP as one of the stakeholder of the action.

4.3 Complementarity of IPA II assistance in the sector with other donors

The biggest bilateral support comes from the Swiss Government, which provides assistance for water management and nature protection. In addition, a number of activities have been financed by the Norwegian Government in the areas of climate action, hazardous waste management and industrial pollution, and by the German Society for International Cooperation (GIZ) in the areas of water, nature, energy efficiency and waste management.

In the area of Climate Action, USAID supported the mapping of national strategic documents, in terms of integrating low emission development elements into the national process of strategic planning. The World Bank's Synthesis Report concerning support to green growth and climate change is in the stage of development.

In regard to water infrastructure, support is provided through the project "Water Supply and Wastewater Collection" for improvement of clean drinking water supply (Loan Agreement between the former Yugoslav Republic of Macedonia, represented by the Ministry of Finance and European Investment Bank FI 2576 SERAPIS number 2008-0446, 2010). The total value of the project financed by the loan amounts to 50 000 000.00 EUR. The project will be implemented in the period 2010-2016. In addition, a loan from KfW Bank in an amount of 8 639 143.51 EUR is under implementation, related to construction and rehabilitation of water supply systems in municipalities.

The Project for construction of wastewater treatment plant in Gevgelija is planned for implementation in the period 2010-2017, with a value of 9.6 million EUR (of which 89% foreign assistance - Greece and Switzerland - and 11% national contribution). The agreement for financial support provided by the Swiss Government for construction of WWTP for the Municipality of Kochani is in its final phase. The total project value is estimated at 26 675 000 CHF, out of which Swiss support will be 22 135 000 CHF. The project will be implemented in the period 2014-2017.

Project for construction of wastewater treatment plant in Volkovo, Municipality of Gjorche Petrov, with a timeframe of implementation 2009-2015 and value of 5.8 million EUR (of which 26% bilateral assistance from the Government of Slovenia and 74% national co-financing) is in the final stage of implementation.

The Project for preparation of the Bregalnica River Basin Management Plan, with a timeframe of implementation 2011-2014 and total value of 4.37 million EUR (of which 89% bilateral assistance from the Swiss Government and 11% national co-financing) is continuing with implementation. Implementation of the Restoration of Lake Prespa Project, with a timeframe of implementation 2011-2018 and total value of 5.38 million CHF, is on-going (100% bilateral assistance of the Swiss Government; implemented by UNDP). Approved is the Swiss support for preparation of the River Basin Management Plan of Strumica in the amount of approximately 300.000 EUR. Future support for the implementation of certain measures from the River Basin Management Plan of Strumica is being considered by the Swiss Government.

MoEPP will pay due attention to avoid any overlap between IPA actions and projects supported by other donors or IFC. In addition, where possible, results obtained from other projects, will be used to increase the efficiency, both in time and finances, of IPA II.

Coordination tasks will be aimed at:

1. Coordination of technical assistance activities with remaining multilateral and bilateral assistance,
2. Coordination of investment activities with IFIs.

The coordination mechanism will focus on:

- improving quality of information on external assistance,
- improving dissemination of information on on-going and planned activities,
- coordination of documents, setting assistance priorities with all donors,
- establishing Sector Working Group for Environment and Climate,
- organising donor coordination meeting on priority topics,
- improving skills for effective coordination of foreign assistance.

4.4 Equal opportunities and gender mainstreaming

Equality of liberties and rights of citizens regardless of gender, race, skin colour, national and social origin, political and religious beliefs, property and social status are guaranteed by the Constitution of the country. Gender equality constitutes a basic principle of international and regional human rights instruments that the country has signed and ratified.

The challenge of cultural differences and providing fair work opportunities for all sections of society is recognized. Equal opportunities must include enhanced integration of women in all areas of the workplace including in selection, training and development initiatives. There are several positive developments in this regard, such as the adoption of the National Action Plan on Gender Equality, establishment of a Unit for Gender Equality within the Ministry of Labour and Social Policy and Gender Equality Commissions at local level. In May 2006, the country adopted the Law on Equal Opportunities for Women and Men, with the purpose of promoting the principle of establishing equal opportunities for women and men in the political, economic, social and educational, fields, as well as in other fields of social life.

During the implementation of the program, measures will be taken to eliminate barriers of any such discrimination.

4.5 Climate action and sustainable development

Environmental protection and reducing risks related to climate change are priorities of this Multiannual Programme. Implementation of foreseen actions will directly contribute to reducing the negative impacts on the environment, and assist its preservation for future generations. Implementation of the operational programme shall result in reduction of water pollution, and consequently risks to human health and the environment, by means of construction, reconstruction, extension and modernization of the sewerage system and the urban waste water treatment plants. Effective waste management and stimulating waste separation and recycling processes together with ecologically sound utilization will also contribute to better environmental protection. In each action, proper attention will be paid to assess the potential for increased resilience to and mitigation of the risks of climate change.

Improvements to the environmental infrastructure will lead to improvements in the quality of life, promote investment opportunities to the economy and contribute to more sustainable economic growth.

4.6 Programme strategy - Actions and activities

The programme will be implemented through three Actions:

- Action 1 - Approximation of environmental and climate action legislation in priority areas and gradual move to sector based approach
- Action 2 - Investments in water and waste management
- Action 3 - Support to sustainable development

4.6.1 Action 1-Approximation of environmental and climate action legislation in priority areas and gradual move to sector based approach

The term approximation used in this Action includes three main processes for EU accession: *transposition*, which means harmonizing national legislation with the EU *acquis*, *implementation* which means implementation of legislation in practice, and *enforcement* which means establishment of systems and mechanisms for inspection, and penalties to encourage implementation of legislation. This action would also assist the process of improving the governance of the environment sector and gradual move to sector based approach.

Aim

To improve the environmental situation in the country through approximation of Environmental and Climate Action *acquis* in order to reach high level of environmental management and ensure quality of life.

EU legislation

This action will contribute to approximation of the EU *acquis* in the identified priority areas of environment, including, but not limited to water and waste management, integrated pollution prevention and control (IPPC), nature protection, climate action, horizontal legislation, noise protection and air quality.

Specific objectives:

- To harmonise national legislation in prioritised areas with EU legislation ;
- To prepare planning documents that allow undertaking of measures and activities for implementation of the legislation within specified timeframe;
- To improve the environmental statistics;
- To improve administrative capacity for implementation and enforcement of the environmental legislation, thus leading the process of accession to EU;
- To improve the governance of the environmental sector and gradual move to the sector based approach.

Rationale

The county's overriding goal is to join the EU. The sector has achieved a high level of transposition of the EU legislation, especially the segments of horizontal legislation, management of waste, chemicals, air and noise, though additional efforts are required in the areas of water, nature and, industrial pollution. Transposition in the area of climate action is low due to the status of the country within the framework of the UN Convention on Climate Change, which is different than that EU Member States, and obligations differ accordingly. In order to improve the situation significant efforts are needed for transposition of relevant legislation.

Administrative capacities in the sector at central, and especially local level, have not been developed sufficiently to undertake full implementation of the legislation, despite significant progress achieved in the areas where EU and other donor funded projects have been implemented. In some areas, such as noise protection, a high level of transposition has been achieved, but very little has been done on implementation. Strengthening capacity is especially required for management of water and waste, protection of nature and climate action, as well as for further development of a monitoring and information system in the environment sector. Further efforts are needed for implementation of horizontal legislation and strengthening enforcement capacity at national and local level. The same is applicable to the environmental statistics and improving the capacities for relevant data collection. Statistical indicators are required for the monitoring of the IPA 2014-IPA 2016 programmes for the sector Environment. For that reason, environmental statistics should be reflected under the IPA 2014-2016 programmes for the Environment sector.

The last EC Country Progress Report (2013) concluded that general, limited progress was made in the fields of environment and climate action. It was noted that further improvement was made in legislative alignment with the EU environment *acquis*, in particular horizontal legislation, waste management and air quality. But there was limited progress in alignment with the EU climate *acquis*. Furthermore, significant efforts are needed to implement the legislation, especially in the areas of water management, industrial pollution control, nature protection and climate change. Significant strengthening of administrative capacity, both at central and local level, is of the utmost importance.

Implementation of legislation requires planning documents that will identify measures as well resources for timely and most efficient implementation leading to fulfilment of EU membership requirements. Therefore, it is necessary to strengthen the management capacity of the EU accession process and in particular, it is necessary to develop implementation plans for specific EU legislation, which requires significant financial resources, or significant reform. This action takes into consideration the

Recommendation given at the 9th Subcommittee meeting on Transport, Environment, Energy and Regional Development, held in Skopje on 6-7 June, 2013. Namely, the minutes of the meeting state: “Referring to the preparedness of the central and local administration for starting the negotiations in the environmental chapter, the Commission pointed out that the preparations for negotiations are better to be done before the official start of the negotiations”.

Consequently, it is expected that the overall guiding principle for 2014 – 2020 will focus on preparation for negotiations and development of planning documents, which support the negotiation position of the country. Such documents are Directive (Specific) Implementation Plans, which will identify missing infrastructure for full implementation, develop list of investment projects, identify measures and assess their costs, foresee sources of financing and assess realistic implementation timetables. Such plans will not only provide a basis for negotiations, but will also guide investment management and the priority setting process in the country. Thus, these documents shall be used during the process of implementation of legislation, as well when defining measures to be included in different donor supported projects.

Description

To fulfil the defined objectives, number measures will be implemented, including:

- Development of primary and secondary legislation to complete the transposition process in prioritised areas;
- Completion of strategic planning, by preparing missing sector strategic planning documents and directive specific implementation plans, addressing priority needs;
- Strengthening the capacities and capabilities for EU negotiations;
- Strengthening the capacities at national and local levels for implementation and enforcement of environmental and climate action legislation;
- Strengthening the capacity for monitoring, data collection, data management and reporting;
- Supply of monitoring and other equipment to support implementation and enforcement of the legislation;
- Support to progressive move to the sector based approach and implement sector based approach conditions.

Delivery

- Technical assistance projects shall be implemented through service contracts and twinning projects. Supply of equipment shall be delivered through supply contracts. Supply related assistance shall be provided based on the assessment of equipment needed to improve the approximation process;
- Projects shall be selected based on the level of transposition of relevant EU legislation, giving priorities to such EU legal acts that have lower level of transposition and are included in NPAA. In some cases (where transposition level is higher) priority shall be given to legal acts necessary to speed up implementation of some measures identified as priority in national planning documents, or necessary for implementation of TA and investment projects;
- Completion of the strategic planning structure shall be a priority in the selection of planning documents to be prepared. Particular attention shall be paid to planning of high cost infrastructure development and measures requiring long implementation periods;
- Projects related to implementation and enforcement shall be selected based on the level of transposition, thus giving priority to areas where level of transposition is high enough and where administrative structure is established at satisfactory level to secure proper implementation;
- Priority shall be given to establishing the necessary administrative structures that provide overall coordination of approximation activities, set the ground for implementation of

sectoral policy, and provide guidelines for implementation and enforcement of legislation.

Targets and Indicators

Indicator	Targets	Means of Verification	Institution in charge
Level of transposition of environmental legislation	Base line 69%, Minimum 75% by 2017 85% by 2020	Progress monitoring. Tables of Concordance	MoEPP and EC
% of actions completed/implemented in the strategic framework	Minimum 40% by 2017, 80% by 2020	Meta plan for planning documents	MoEPP
Completion of environmental statistics framework	Minimum 60% by 2017, 80% by 2020	Framework for improvement of environmental statistics	SSO, MoEPP
Institutions responsible for approximation of environmental legislation in priority areas capable to undertake approximation tasks	Minimum 40% by 2017 and 80 % by 2020 of the staff of relevant institutions trained	EC Progress Reports. Progress monitoring, Implementation Questionnaires Reports regarding implementation of activities	MoEPP and EC
Availability of information to public, decision making and reporting	Information on water and waste management, air protection available according to EU requirements by 2020	Country data. Reporting status	MoEPP and EEA
Completion of sector based approach conditions/framework	Minimum 40% by 2017, 80% by 2020	Policy Dialogue discussions, Road Map	MoEPP and EC

4.6.1.1 Activity 1.1: Preparation of planning documents in priority areas

Specific objectives:

- Completion of the strategic framework by preparing missing sector specific and directive specific implementation plans (DSIPs) and other planning documents addressing priority needs;
- Detailed description of activities needed for implementation and enforcement in priority sectors;
- Strengthening multiannual planning in the environment sector;
- Improvement of environmental statistics and data collection;
- Strengthening the capacity for monitoring, data collection, data management and reporting;
- Strengthening capacity for financial resources planning and increased utilization of available funds, and JASPERS assistance;

- Support to progressive move to the sector based approach and implement sector based approach conditions.

Rationale

Implementation of high cost directives require long periods and well planned activities in order to best use scarce financial resources. DSIPs have to be developed as guidelines to project preparation and implementation before and after joining EU, during the transitional periods (*e.g.* UWWTD, Landfill Directive, Drinking Water Directive). In some cases, implementation plans will be needed for Directives for which no transitional period will be allowed, based on the experience of the enlargement process so far. Action plans shall be developed to ensure implementation of requirements on time to meet EU membership criteria (*e.g.* Birds and Habitat Directives, Nitrates, Climate related legislation).

Each of heavy investment directive implementation plan will provide list of investment projects, their costs, financing sources and implementation schedules. But each plan cannot be considered in isolation and used only for negotiations purposes. It is essential to build all future investment process management on the needs identified for the implementation of directives and to coordinate it with national priorities. In order to ensure overall planning of infrastructure needs and availability of resources Environmental Investment and Financing Strategy is necessary. This might be done by updating or revising the current National Environmental Strategy for Investment, or by elaborating a new document that will secure sustainable and efficient use of available financial resources for implementation of the environmental legislation.

EU legislation is constantly changing. Therefore some plans (*e.g.*, Waste Management Strategy) are outdated or their deadlines have passed; they will have to be updated to reflect the new requirements of the relevant EU legislation (*e.g.*, New Waste Framework Directive) or new ones will have to be developed. Implementation plans are needed in various sectors in order to identify actions and resources needed for implementation - at national, regional and local level.

The overall measures implemented under this activity will contribute to the establishment of a good planning framework for environmental and other institutions to take actions for implementation of environmental and climate action requirements, and will define future assistance needs for the Environment and Climate Action Sector. This will also support the process of revision of NPAA that takes place each year. Namely, identified activities, responsible administration for their implementation, as well as the time frame needed for implementation shall be included in NPAA, thus providing better coordination among different administrations and better monitoring of implementation.

Description

This activity will be delivered through service contracts and twinning projects.

In the course of implementation of this activity, a number of planning documents will be prepared, and capabilities of the staff members will be improved both to prepare such strategic and tactical documents, but also to better guide implementation. Support will be provided for (albeit not limited to) the implementation of the following measures:

- Development of new or revision of exiting planning documents for waste management related to implementation of EU legislation on waste management (*e.g.* revision of the National Waste Management Strategy to include the requirements of the new Waste Framework Directive and update of the Plan for Reducing Biodegradable Waste placed in the landfills, Development of Regional Waste Management Plans, Development of a Programme for Waste Prevention and Programs for Specific Waste Streams, such as packaging waste, batteries and accumulators and WEEE);
- Development of new or revision of existing planning documents related to air quality management (*e.g.* “National Plan for Ambient Air Protection 2018-2022“, review of the National Programme for Gradual Reduction of Emissions according to the amendments of the existing international agreements and the new NEC directive);

- Development of Directive Specific Implementation Plans (DSIP), for which transitional periods will be requested and other implementation plans, including estimation of costs and establishment of financial instruments for implementation of requirements (e.g. UWW, Drinking Water Directive, Nitrates Directive, Landfill Directive, IED, Birds and Habitat Directives, INSPIRE);
- Development of Environmental Investment and Financing Strategy to sum up all results from the DSIPs and other implementation plans, or revision of the National Environment Investment Strategy;
- Preparation of a Plan for Development of Institutional Capacities for Implementation of Environmental *Acquis*;
- Development of River Basin Management Plan for Vardar River;
- Development of planning documents related to flood management and protection, and risk management;
- Developing planning documents to provide for implementation of a long term strategy on limitation of GHG Emission and development of adaptation plans for individual sectors;
- Development of Strategic Noise Maps and Action plans with programmes of measures for reduction of negative effects of noise;
- Support in developing management plans for natural protected areas;
- Development of a specific policy road map for sector based approach implementation;
- Development of Framework for improvement of environmental statistics;
- Development of other priority strategies and planning documents necessary for implementation of environmental and climate legislation.

Selection criteria

- Consistency with the national policies and objectives;
- Consistency with national and regional priorities;
- Activity included in NPAA;
- The degree of necessity for implementation of the environmental and climate legislation.

Final beneficiary

The final beneficiaries for this activity are following institutions:

- Ministry of Environment and Physical Planning;
- Ministry of Health
- Protection and Rescue Directorate and
- Local Self Government Units

Targets and indicators

Indicator	Targets	Means of Verification	Institution in charge
Number of planning documents developed	Base line 0, Minimum 5 by 2017 and 13 by 2020	Planning document approved by MoEPP	MoEPP
Activities needed for implementation of identified legislation	NPAA contains all activities needed for full approximation; 60% of them implemented by 2017, 85% by 2020	NPAA SEP assessment on the implementation of NPAA	MoEPP and SEP

Long term pipelines of projects developed	All investment projects for full compliance identified in water and waste management sector by 2020	Pipelines of projects included in Directive specific implementation plans and Investment and Financing Strategy	MoEPP
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4.6.1.2 Activity 1.2: Transposition of Environmental and Climate Acquis

Specific objectives:

- Further transposition of EU legislation by adoption of primary and secondary legislation in the field of environment and climate action in compliance with EU legislation
- Further harmonization of national legislation with EU legislation by adoption of guidance and procedures for implementation and enforcement of Environment and Climate Action legislation

Rationale

The Government of the former Yugoslav Republic of Macedonia, in order to fulfil the criteria for full EU membership annually revises the National Programme for Adoption of the Acquis (NPAA) in order to accommodate priorities from the annual Work Programme of the Government, the Accession Partnership, EC Country Progress Report, revised strategic plans of the ministries, current and planned projects implemented with the support of EU, other aid funds and the central budget.

NPAA contains a plan for harmonization of national legislation with the EU *acquis*, the dynamics of the institutional strengthening necessary for implementation of the legislation, actions needed for implementation of legislation, as well as the resources necessary for completion. NPAA also includes an Action Plan, which is a Matrix of priorities, objectives and activities that need to be implemented in a particular time frame, and institutions responsible to take these activities. The Action Plan enables efficient monitoring of the process of implementation of the NPAA. The document contains details on the activities for implementing the priorities and objectives in each sector.

In this regard, the former Yugoslav Republic of Macedonia has reached a high level of transposition, but much remains to be done in order to fully complete transposition. The status of transposition of EU environmental legal acts (2012) (average percentage by chapters) is presented below:

- Horizontal legislation: the level of transposition is 79 %;
- Air Quality: the level of transposition is 66,35 %;
- Waste Management: the level of transposition is 81 %;
- Water Quality: the level of transposition is 60,53 %;
- Nature Protection: the level of transposition is 55 %;
- Industrial Pollution Control: the level of transposition is 75 %;
- Noise: the level of transposition is 100 %;
- Climate Change: the level of transposition is 37 %.

However, due to constant change of EU legislation, as well as change of implementation conditions, some legislation needs to be revised to reflect the current situation and developments in the country. In particular, this pertains to legislation where problems have been identified with implementation, and as such is an obstacle in the implementation of measures identified as a priority in national planning documents, or in the implementation of major projects.

Every new piece of legislation, especially ones that require significant implementation efforts and are related to stakeholders outside the administrative structure, need to be supported by guidelines, manuals, check-lists or procedures that will secure their timely and adequate implementation. This is particularly the case in relation to enforcement, where equal standards should be respected when inspection is

conducted by relevant authorities. When developing implementation acts, it shall be taken into account that implementation may require equipment and particular attention shall be made to identifying types of specific and IT equipment. Consequently, supply of equipment shall be included as necessary within this activity.

The aim for the period 2014 – 2020 is to create legal framework which is in compliance with the relevant EU legislation and to provide grounds for its implementation and enforcement.

Description

This activity will be delivered through implementation of service contracts, twinning and supply contracts. The activity will be directed towards the support of transposition and harmonisation of legislation in at least the following areas: horizontal legislation, waste and water management, nature protection, climate action legislation, industrial emission and air quality legislation. In order to support the implementation of the developed legislation, guidance, checklists, manuals or procedures (implementation acts) shall be developed.

Selection criteria

- Level of transposition of legislation (priority given to legislation with smaller % of transposition);
- Insufficient and inadequate legal framework creates implementation problems;
- Legislation included in NPAA.

Final beneficiary

The final beneficiaries for this activity are following institutions:

- Ministry of Environment and Physical Planning;
- Ministry of Health;
- Ministry of Economy;
- Ministry of Agriculture, Forestry and Water Economy;
- Local Self Government Units.

Targets and indicators

Indicator	Targets	Means of Verification	Institution in charge
Number of laws, by-laws and implementing acts in compliance with EU legislation developed (new or amended)	Base line 0, Minimum 10 by 2017, 25 by 2020	Laws approved by MoEPP and provided to the Government for adoption, other legal acts approved by the MoEPP	MoEPP
Secondary legislation in compliance with EU legislation developed	Minimum 6 by 2017, 15 by 2020	Secondary legislation approved by MoEPP	MoEPP
Implementing acts for implementation and enforcement of legislation	Minimum 3 by 2017, 8 by 2020	Implementing acts for implementation	MoEPP

developed		and enforcement approved by MoEPP	
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4.6.1.3 Activity 1.3: Strengthening capacities for implementation and enforcement of environment and climate action legislation in priority areas

Specific objectives:

- Strengthening administrative capacity for organisation and management of the approximation process and implementation of the legislation in priority sectors;
- Improved project management capacities and capabilities;
- Established institutional system and capabilities for accession negotiations;
- Establishment of structures for monitoring network and national environmental information system;
- Strengthening administrative capacity for enforcement of environment and climate action legislation at national and local level.

Rationale

Capacity issues are constantly raised in all EC Progress Reports. The 2013 Progress Report stated: “Significant efforts are needed to implement the legislation, especially in the areas of water management, industrial pollution control, nature protection and climate change. Significant strengthening of administrative capacity, both at central and local level, is of the utmost importance”. The implementation and enforcement of EU requirements is expected to improve considerably during 2014 – 2020.

Needs for institutional strengthening will be assessed through requirements of the negotiations process. The preparatory process for the accession negotiations will be the guiding principle, in order to better understand capacity and capability demands when ensuring membership obligations. Proper attention shall be paid to capacity and capability at national and local levels for implementation and enforcement of relevant legislation in priority areas. The purpose of the activity is through the preparatory process for membership negotiations to further identify needs for institutional strengthening required for implementation of the environmental *acquis*, and to provide the administrative capacities for environmental management on central and local level (as minimum, in the fields of water management, waste management, nature protection, air quality management, climate action and protection from noise). Considerable efforts are needed for strengthening the capacity for enforcement of environment and climate action legislation. Accordingly, support will be targeted to central and local level administrations responsible for enforcement and inspection.

Description

This activity will be delivered through service, twinning and supply contracts.

The activities will support the strengthening of institutional capacities of central and local administrations for implementation and enforcement of environment and climate action legislation. More specifically, support will be provided for:

- Strengthening capacity for negotiation with EU. Development of position papers shall provide possibility to further assess the approximation process, identify remaining gaps, propose institutional, procedural, legal, infrastructure development, monitoring and enforcement measures needed for full implementation. Results of this measure shall provide the background for further management of the approximation process and guidance on priority activities;
- Strengthening capacities at national and local levels in implementing EU water legislation;
- Strengthening capacities at national and regional/local level for waste management;

- Strengthening capacity of national and local administrations for implementation of nature management legislation, including management authorities of the protected areas;
- Support in identification of NATURA 2000 territories, establishment of protected areas network and implementation of protected areas management plans;
- Introduction of monitoring of natural habitats and species;
- Strengthening capacity for implementation of air quality legislation;
- Strengthening administrative capacity for implementation of climate *acquis* (climate change management, establishment of Emission Trading Scheme, establishment of system for monitoring, assessment, reporting and verification, and implementing measures included in the long term strategy on limitation of GHG Emission);
- Support in reduction of industrial pollution through implementation of the Industrial Emission Directive;
- Strengthening capacities at central and local level for implementation of noise legislation and noise planning documents;
- Strengthening capacity for enforcement of environment and climate action legislation at national and local level;
- Strengthening capacity for implementation of horizontal legislation (EIA, SEA, Public Participation, Environmental crime etc.), at national and local level, including NGOs;
- Strengthening capacity and improvement of the status of environmental information collection, exchange and access, and establishment/ upgrading of integrated environmental information and reporting system;
- Strengthening technical and institutional capacity at national and local levels for further development of the integrated monitoring system (network and data analysis and processing system), development of new and/or upgrading of existing monitoring programmes in the area of environment and climate action in accordance with the requirements of EU (air, water, noise etc);
- Development of accredited national environmental laboratory capacities;
- Procurement of office, monitoring and other equipment necessary for implementation of environmental legislation.

Selection criteria

Project shall be selected based on the following criteria:

- Number of activities remaining for implementation of the legislation (areas with lower number of implemented activities will have priority);
- Availability of administrative structure for implementation of the legislation;
- Activities included in NPAA;
- Activities included in planning document at national, regional or local level;

The **final beneficiaries** for this activity are following institutions:

- Ministry of Environment and Physical Planning;
- Ministry of Economy;
- Ministry of Health;
- Ministry of Agriculture, Forestry and Water Economy;
- Local Authorities;
- Regional waste management centers;
- Management authorities of protected areas;
- National environmental laboratory.

Targets and Indicators

Indicator	Targets	Means of Verification	Institution in charge

Establishment of NATURA 2000 network	70% NATURA 2000 sites identified by 2020	Report on proposed Natura 2000 areas	MoEPP
% of NATURA 2000 territories identified	Base line 0%, 70% by 2020	Report on proposed Natura 2000 areas	MoEPP
% of actions from the Plan for Development of Institutional Capacities implemented	Base line 0%, 70% of measures implemented by 2020	Report on assessment of the implementation	MoEPP
Establishment of monitoring and information system	60% of measures implemented by 2020	Progress report on implementation of Monitoring Programme	MoEPP

4.6.2 Action 2 – Investments in water and waste management

Aim

To improve environmental protection through investments in environmental infrastructure and to create conditions for environment-friendly development.

EU legislation

This action will contribute to implementation of the EU Water and Waste *acquis* in particular:

- Water Framework Directive 2000/60/EC,
- Urban Wastewater Treatment Directive 91/271/EEC,
- Sewage Sludge Directive 86/278/EEC,
- Drinking Water Directive 1998/83/EC,
- Framework Waste Directive 2008/98/EC,
- Landfill Directive 1999/31/EC,
- Packaging and Packaging Waste Directive 94/62/EC.

Specific objectives:

- Promotion of sustainable development, especially through minimizing the adverse effects of inappropriate management of waste water and waste;
- Reduction of untreated wastewater discharged to recipients in larger agglomerations (over 10000 PE) where collection of waste water is insufficient and no treatment facility exist or if so, are in unsatisfactory condition;
- Reduction of environment deterioration incurred by inappropriate waste management through the introduction of integrated waste management system on the regional level, in compliance with the Framework Waste Directive, with emphasis on increased waste separation at source, recycling and composting;
- Increase of the number of population served by the wastewater and waste collection, and disposal facilities that are in compliance with environmental *acquis*.

Rationale

The priority is to focus on the needs identified in the SWOT analysis of the environmental sector. Following the analysis, two main areas of the environmental sector have been identified as most important in terms of future development and needs for investment with the greatest impact on the population and on the environment. The Action concentrates on the investments in wastewater collection and treatment and integrated solid waste management; it is built on the results achieved within OPRD 2007-2013. In particular, this programme will take into consideration the prepared technical documentation, and will thus secure completion of the processes and objectives set in the project documentation developed under OPRD 2007-2013.

Development of the waste water collection and treatment sector is insufficient. The rate of connection of the population to public sewerage systems is about 65%; however, only 12.5% of collected wastewater is treated. Most of the agglomerations do not have a sewer system, and wastewater is either discharged into sewer pits, septic tanks, and cesspools, or is discharged directly into fields or streams. No monitoring of the wastewater discharged to recipients by municipal sewerage systems exists, except of several cases where sewerage systems are connected to the WWTPs in operation.

In order to improve the environmental conditions and reduce further pollution of nature and the environment, particularly watercourses and water sources, it is necessary to build a wastewater collection and treatment infrastructure meeting the required criteria and parameters specified in the Urban Wastewater Treatment Directive (91/271/EEC).

In order to secure coordination in regard to construction of WWTPs and rehabilitation and extension of sewerage systems, Ministry of Transport and Communication shall be included as one of the stakeholders in the project implementation and as part of the Project Steering Committees. In addition, regular coordination meetings shall take place between relevant departments of the MTC and MoEPP prior to the adoption of any decision that has implication on the work of the PUC. When needed, but at least twice a year, the National Water Council shall meet, at which time issues relevant for planning of water infrastructure shall be discussed and agreed.

As for solid waste management, despite of the fact that around 70% of the total population receives regular waste collection services, almost no waste collected is disposed in environmentally appropriate manner. Waste disposal practices do not comply with any technical and/or environmental standards. There are 55 municipal dumps in operation, but most of them will have to be closed, as site conditions do not allow upgrades to the level meeting the EU standards for landfills at reasonable costs. Regular separate collection of recyclables from municipal waste does not exist except for some rare cases; all municipal waste is disposed at dumps with inappropriate technical standards. Therefore, it is necessary to establish regional integrated waste management systems compatible with EU requirements to ensure that waste is properly managed, and to avoid further degradation of the environment. Establishing the required infrastructure will contribute to controlled waste management and reduction of nature deterioration.

Description

Activities for this action are focused on investments aimed at upgrading and establishing the infrastructure for wastewater collection and treatment in agglomerations over 10000 PE, and on investments in waste management infrastructure and equipment.

In the waste water sector, the priority should focus on agglomerations over 10 000 PE. When deciding on the extent of the technical solutions for sewage collection and treatment (in particular requirements to apply secondary and tertiary treatment), special attention must be devoted to sensitive areas.

In the waste management sector, priority will be given to establishing integrated infrastructure for waste collection and treatment, with special emphasis on source separation and secondary separation of recyclables, extension of recycling capacities and treatment of biodegradable waste. Only municipal solid waste that cannot be recycled because of technical or economic reasons at this stage will be disposed in landfills, complying with requirements of the Landfill Directive. In order to prevent further pollution of the environment, and particularly water sources, proper closure of non-compliant landfills shall be taken into consideration, in accordance with the conditions set in the relevant regional waste management plans.

Along with the waste treatment processes, emphasis should also be placed on energy recovery and reduction of emissions of greenhouse gas by utilization of methane generated during the waste treatment process. Best available technologies should be applied in this regard, such as CHP units, which produce heat and energy by burning methane.

The priority activities within this action are designed to support improvement of the environmental infrastructure focusing on wastewater and waste areas:

- Activity 1: Establishing wastewater collection and treatment infrastructure meeting EU requirements
- Activity 2: Establishing an integrated and financially self-sustainable waste management system

Delivery

This action will be delivered through service supply and works contracts. Possibilities shall be explored, and utilised when possible, for blending IPA funds with financial resources and grants from other IFSs and /or international organizations.

- Investments will be focused on activities where the effects on the population and environment are the greatest. In the area of wastewater, agglomerations over 10 000 inhabitants are targeted, with particular emphasis on agglomerations for which documentation for construction of WWTP and rehabilitation and extension of the sewage network is developed under IPA 1 activities;
- In the area of waste management, priority will be given to establish and support implementation of integrated waste management systems, focusing on those regions, which are the biggest and where the project preparation is most advanced.

Targets and Indicators

Indicator	Targets	Means of Verification	Institution in charge
Number/ % of households connected to sewerage systems (baseline in 2012 65%)	68% by 2017 and 75 % by 2020	State Statistical Office (SSO)	MoEPP
Number/ % of households connected to the wastewater treatment plants for agglomerations above 10 000 p.e. (baseline in 2012 12.5%)	16.8% by 2017 and 21 % by 2020	SSO	MoEPP
% of household served with waste collection service (baseline in 2012 70%)	75% by 2017 and 80 % by 2020	SSO	MoEPP

4.6.2.1 Activity 2.1: Establishing wastewater collection and treatment infrastructure meeting the EU requirements

Specific objectives:

- Increased number of inhabitants connected to sewerage system and served by wastewater treatment of required parameters on effluent in agglomerations over 10 000 inhabitants;

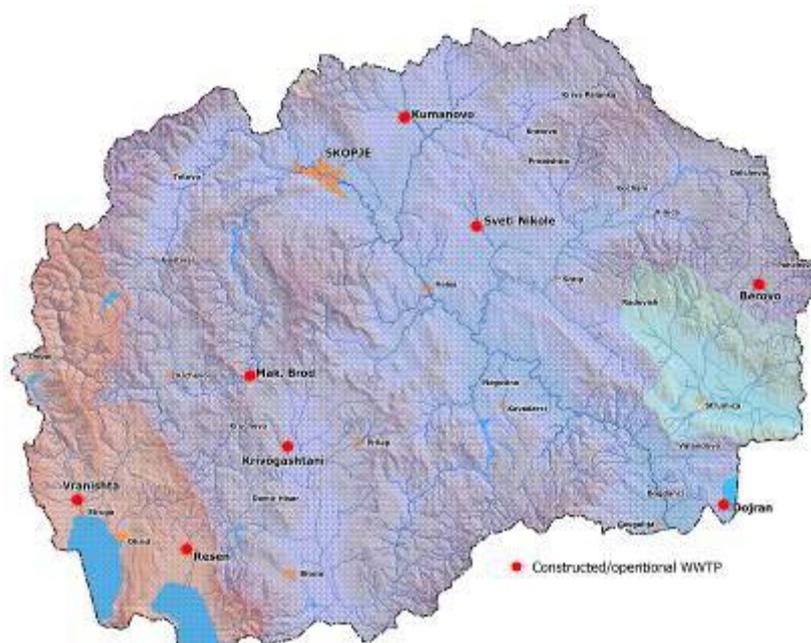
- Reduced volume of discharged untreated municipal wastewater, and reduced negative impact on quality of water resources, nature and population health;
- Developed new wastewater projects to the extent ready for implementation;
- Strengthened capacity of local authorities and PUCs for management of new constructed WWTPs and application of water tariff system, increased financial sustainability and effective application of the polluter pays principle.

Rationale

With few exceptions, sewage networks and waste water treatment facilities in the country are both insufficient and out-dated.

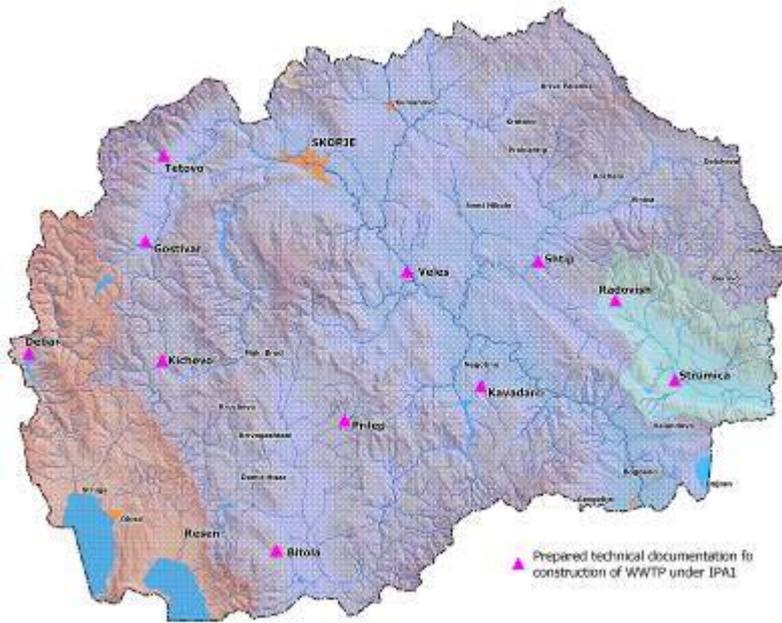
There are 8 WWTP operating at the moment. Current status of the constructed WWTP in the country is presented in the map 1 below.

Map1. Existing WWTP



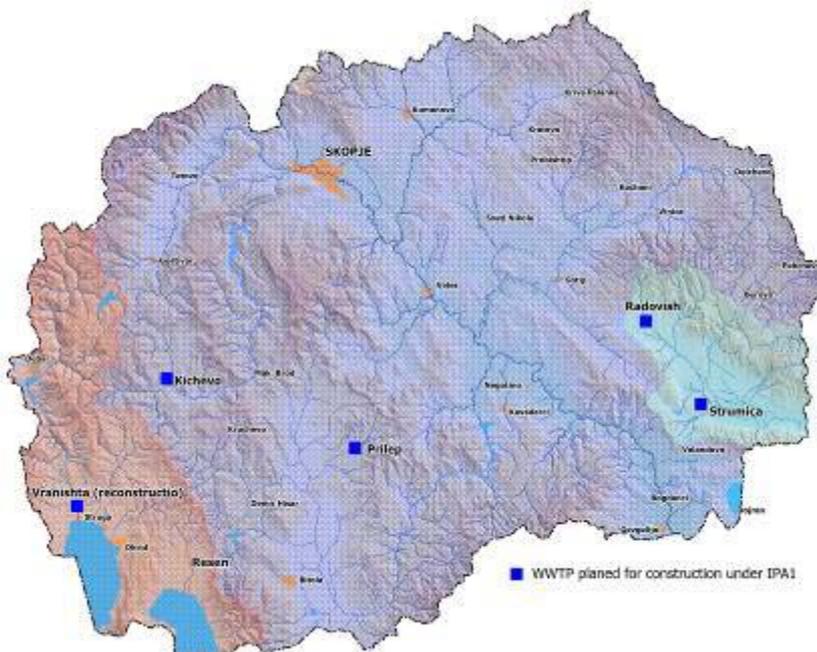
During the implementation of OPRD 2007-2013, project documentation for construction of WWTPs and rehabilitation and upgrading of sewage network was prepared (some under preparation) for the following agglomerations above 10000 inhabitants: municipalities of Prilep, Tetovo, Strumica, Kavadarci, Bitola, Gostivar, Radovish, Kicevo and Debar. In addition, the preparation of project documentation is planned for Veles and Stip. For rehabilitation and extension of sewerage network, project documentation shall be prepared for the City of Skopje and the municipality of Kichevo.

Map 2 WWPT project prepared under OPRD 2007-2013



Under the OPRD 2007-2013 construction of WWTPs is planned in municipalities of Prilep, Radovish, Strumica, Kichevo and rehabilitation of WWTP of Vranista (Ohrid).

Map 3 – WWTP planed for construction under OPRD 2007-2013



Two WWTPs for the agglomerations of the municipalities of Gevgelija and Kochani are being planned for construction using national and donor support: the former with support from Republic of Greece and Switzerland, and the latter again with support from Switzerland.

In order to improve environmental conditions and to avoid further pollution of nature and environment, particularly watercourses and water sources, it is necessary to build sufficient wastewater collection and treatment infrastructure, meeting the required criteria given in the Urban Wastewater Treatment

Directive (91/271/EEC). Infrastructure development will include construction of WWTP with secondary and/or tertiary level of treatment and sludge management as necessary for compliance with the EU requirements. In addition, extension and rehabilitation of sewage network is needed in order to use designed treatment capacity and increase the efficiency of the WWTPs.

The activity for 2014 – 2020 will build on the results achieved by OPRD 2007-2013. Construction of the WWTPs and extension and rehabilitation of the sewage network shall be implemented for municipalities with technical documentation has been prepared under OPRD 2007-2013, where feasibility studies and CBA conclude a positive outcome, and projects that are financially sustainable.

The newly developed water infrastructure will require significant increase of the capacity of PUC and municipal administration to operate and maintain it. Accordingly, some support shall be provided to these companies in order to ensure proper implementation of the new water tariff methodology, appropriate management of the new infrastructure and to increase the quality of services provided to the citizens. This will secure sustainability of the built infrastructure.

Description

This activity will be delivered through service, supply and works contracts. Possibilities shall be explored, and utilised when possible, for blending financial resources and grants from other IFs and/or international organizations.

- The measure will support project implementation, physical works of the selected projects that are at most advanced level of preparation and are in compliance with the sector priorities and fulfil the selection criteria. Priority shall be given to projects with technical documentation developed under OPRD 2007-2013. In case of construction, upgrading, extension of sewerage network in agglomerations over 10000 PE where a WWTP is not already constructed, a decision for WWTP construction including securing of funds has to be adopted by the competent national authorities at latest by 2020. In case such decision is not obtained within the given period, IPA funds for the country for the next programming period may be reduced. The proposed project for construction, upgrading or extension of a sewerage network has to demonstrate that the environment is protected at a highest possible extent from adverse effects of discharge of the sewerage until the WWTP is constructed and the complete waste water treatment system is put into operation.

The support will also address, if no other sources are available, preparatory activities needed to complete documentation before submission of the application for financing, including feasibility studies, cost-benefit analyses, environmental impact assessment, design documentation, etc.

The biggest agglomeration with the greatest adverse impact on environment, mainly pollution of the Vardar River will be of the highest priority.

Activity will be implemented by following measures:

- Construction, upgrading, extension of wastewater treatment plants with at least secondary treatment (nutrient removal) meeting the EU criteria in agglomerations over 10 000 PE;
- Construction, upgrading, extension of sewerage network in agglomerations over 10 000 PE;
- Investment into sludge treatment facilities;
- Preparation of project documentation including feasibility studies, cost-benefit analyses, EIA, design documentation, and assistance with tendering and contracting (tender specification, evaluation, preparation of contracts, etc.);
- Supervision of works contracts;
- Support to local authorities and PUCs to manage the WWTPs and implement the new water tariff system;
- Support in the selection and evaluation process.

Selection criteria

Project shall be selected based on the following criteria:

- Consistency with the national and regional policies, in particular with River Basin Management Plans;
- Project maturity for implementation;
- Impact on population and nature;
- Environmental benefit expressed in amount of pollution reduction;
- Coverage of sewage system expressed in % of population covered;
- Adequate management capacity of final beneficiary;
- Sufficient financial ability of the beneficiary and available co-financing.

Final beneficiary

The final beneficiaries for this activity are following institutions:

- MoEPP
- Municipalities
- Municipal public water companies (PUCs)

Targets and Indicators

Indicator	Targets	Means of Verification	Institution in charge
WWTPs meeting the EC required criteria constructed	Base line 0, 0 plants constructed by 2017, 2 plants constructed by 2020	WWTPs put in operation	MoEPP and PUC
Km rehabilitated and extended of sewerage network	Base line 0, 0 by 2017, 27 by 2020	Sewerage network put in operation	MoEPP and PUC

4.6.2.2 Activity 2.2 – Establishing of an Integrated and Financially Self-sustainable Waste Management System

Specific objectives:

- Created conditions for sound solid waste collection and disposal and avoided further deterioration of the environment by uncontrolled waste management;
- Reduced volume of municipal solid waste disposed to landfills and increased share of waste separated, composted and recycled;
- Increased number of population served by waste collection and disposal in compliance with EU standards;
- Improved inter-municipal cooperation by introducing regional waste management systems;
- Closure of non-compliant landfills as soon as the relevant alternative is established;
- Developed pipeline of new waste management projects to the stage for readiness for implementation;
- Developed project documentation needed to proceed with investment into closure and re-cultivation of non-compliant landfills, including development of risk assessment and remediation or aftercare plan.

Rationale

The Waste Framework Directive implies the obligation to implement waste prevention and reduction policies and increase source separation and recycling. This requires improvements in waste collection practices by establishing source separation schemes, and developing secondary separation and waste recycling capacities that contribute to achieving the targets foreseen in the Directive. Only waste that cannot be recovered or recycled will be disposed in regional landfills that need to comply with the Landfill Directive.

Present waste disposal practices in the country do not comply with any technical and/or environmental standards. Most of the existing municipal dumpsites will have to be closed since site conditions do not allow upgrading to EU requirements under reasonable costs. Only 70% of the population receives regular waste collection. Organized and regular separation and recycling or composting of the communal waste is still in a very early stage.

The National Waste Management Strategy (2008-2020) foresees the establishment of integrated regional waste management systems, where one shall comprise of more than 200 000 inhabitants in order to achieve the adequate economic thresholds for investment and operation of the municipal waste management facilities and acceptable prices for executed services. In this regard, 2012 the Law on Waste Management introduced a baseline for establishing regional waste management systems. According to the Article 23-e of the Law on Waste Management, Inter-Municipal Waste Management Boards and Regional Centres for Waste Management will need to be established in all 8 waste management regions. At present, such bodies have been created in the East and Northeast region, Vardar, Skopje, Pelagonia and Southwest regions. This provides possibility for a regional approach in waste management, which is more effective and efficient compared to municipal level activities.

In the previous programming period IPA OPRD 2007-2013 support was provided for strengthening the capacities of the central and local administration, for implementation and enforcement of the legislation and for development of planning documents and other technical documentation for the East and North-East regions. The selection of planning regions in the country that were included in the project under Measure 3.2 "Establishment of integrated waste management system on regional level" has been made upon comprehensive analysis of the extent of preparedness for cooperation at regional level expressed by way of signed Memorandum for Cooperation by the Mayors of the relevant municipalities composing the planning region, in parallel with the assessment of the extent of preparedness of the planning documentation on regional level. The criteria from the Operational Programme for Regional Development have been taken for selection of regions and they were as following:

- Consistency between national and regional policies;
- Existence of Waste Management Plans;
- Impact on population and nature;
- Adequate management capacity of the final beneficiary and authorization for waste handling and disposal;
- Sufficient financial condition of the beneficiary and available co-financing;

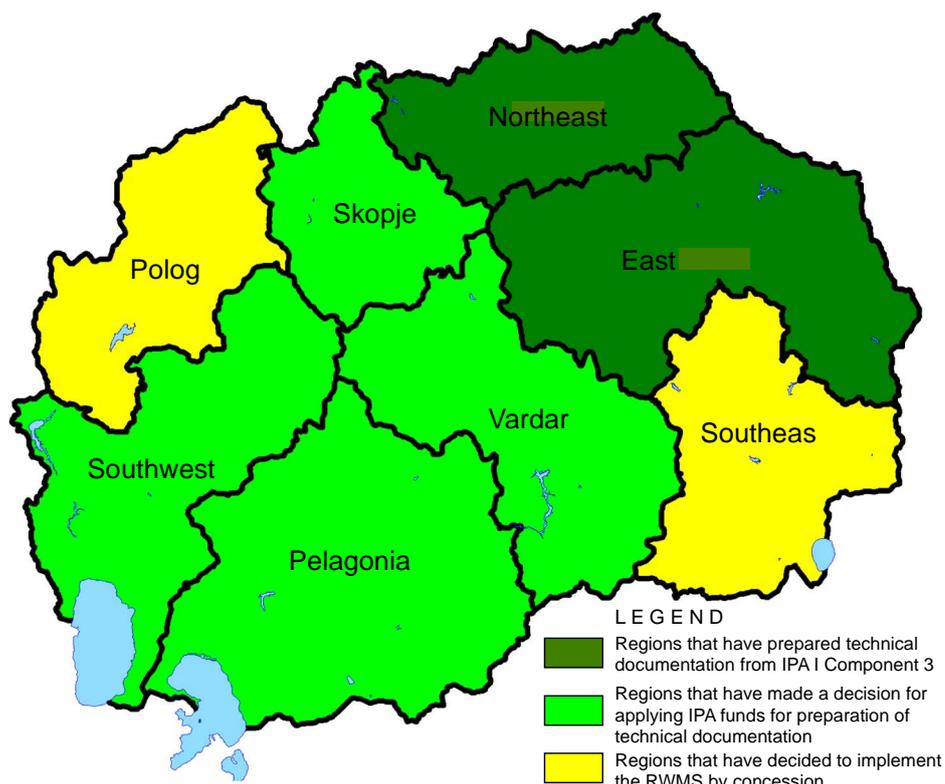
The North-East and East Planning Region fulfilled the minimum criteria, and on the proposal of MoEPP the selection of the regions was confirmed by the Government its 116th Session held on 20 October 2009. On the same Government Session, MoEPP was obliged to initiate the procedure for issuance of concession for Polog planning region and Southeast planning region.

Consequently, the North-East and East Planning Regions are most advanced in establishment of regional waste management systems, and are expected to be first regions in the former Yugoslav Republic of Macedonia for construction of waste management infrastructure (source and secondary separation infrastructure, composting sites, landfill, etc.). In addition, Regional Waste Management Plans are expected to be prepared for additional four regions: Vardar, Pelagonia, South-West and Skopje region, thus providing conditions to further continue the development of a regional integrated waste management system in these regions. Namely, during the period from 2011 -2013 intensive communication between the planning regions and MoEPP was organized in terms of implementing the integrated regional waste management. On the 31st Session held on 4 December, 2011, of the

Government of the former Yugoslav Republic of Macedonia, asked the Vardar, Pelagonia, South-West and Skopje regions to take a stand on the decision to apply for IPA funds for the preparation of the planning documents for further development of a regional integrated waste management system. In the 3 year period that followed, all four regions established Inter-municipal waste management boards, and all of them informed the MoEPP of their Decisions expressing the willingness to apply for IPA funds for preparation of the necessary planning documentation (Decision No. 0201-28/3 from 28.02.2014 for Skopje Region, Decision No. 02-159/3 from 30.10.2013 for Vardar region, Decision on 21.08.2013 for Pelagonia region and Decision No. 0201-143/3 from 27.08.2013 for South-West region.).

The overall situation of the status of all waste management regions is presented in the Map 4 below:

Map 4 – Waste Management Regions in the former Yugoslav Republic of Macedonia



The activities implemented so far have provided a sound base to start the construction of waste infrastructure projects in regions that are most advanced, such as East and North-East regions, but also to prepare project documentation for mature investment projects for this and next programming period, by IFIs, other donors or national financing.

According to the Landfill Directive countries should ensure that existing non-compliant landfills, which cannot be upgraded to meet directive requirements are closed as soon as possible, in particular landfills where it is not possible to eliminate the unacceptable risk to environment and public health.

The activity will support implementation of projects for development of waste management infrastructure with special emphasis on source separation, secondary separation and composting in order to reduce the share of waste disposed in landfills. The number of landfills will be minimised by applying the regional approach, and they will be constructed to meet all EU requirements.

The activity will also support development of required documentation and strengthening the capacities of Regional waste management centers to develop and operate waste management infrastructure.

In addition, the activity will support risk assessment of non-compliant landfills, development of required plans and implementation of remediation measures.

Description

This activity will be delivered through service, supply and works contracts. Possibilities shall be explored, and utilised when possible, for blending financial resources and grants from other IFIs and/or international organizations.

This activity will be implemented by following measures:

- Implementation of investment projects supporting the regional waste management approach, including infrastructure and equipment for source separation, waste collection, transfer stations, secondary separation, recycling yards, composting sites and sanitary landfills (with required infrastructure for operation including leachate treatment plants);
- Supply of necessary equipment for waste collection, separation and treatment;
- Support for management of special waste streams (selection, recycling, treatment of waste including end-of-life vehicles, waste oils, WEEE etc.);
- Risk assessment, development of detailed plans for remediation and closure of noncompliant landfills, investment into required measures for closure and re-cultivation of noncompliant landfills;
- Project preparation studies including feasibility studies, cost-benefit analyses, environment impact assessment, design documentation etc. in order to prepare projects for investment;
- Support to tendering and contracting (development of tender documentation, support in selection and evaluation, preparation of contracts, etc.) related to establishment of integrated waste management systems, closure and remediation of noncompliant landfills;
- Support for project implementation and monitoring including supervision of works contracts;
- Support to local authorities, Regional centres for waste management and PUCs for project implementation, development of required rules and guidelines for management of the newly constructed waste management infrastructure and implement the polluter pay principle.

Selection criteria

Projects shall be selected based on the following criteria:

- Consistency with the national and regional policies, mainly with the National and Regional Waste Management Plans;
- Level of readiness of the project for implementation;
- Impact on population and environment;
- Adequate management capacity of final beneficiary;
- Sufficient financial ability of the beneficiary and availability of co-financing.

Final beneficiary

The final beneficiaries for this activity are the following institutions:

- MoEPP;
- Units of Local Self Government;
- Municipal public waste companies (PUCs)
- Regional centres for waste management.

Targets and Indicators

Indicator	Targets	Means of Verification	Institution in charge
Number of new constructed landfills in East and North-East Regions	Base line 0, 0 by 2017, 1 landfill constructed by 2020	Act of acceptance of landfill in operation	MoEPP
Supply of equipment for waste management	1 project implemented by 2020	Documentation on project implementation	MoEPP and Delegation of EU
Closure of non-complaint landfills in East and North-East Regions	1 project implemented by 2020	Documentation on project implementation	MoEPP and Delegation of EU

Indicative List of major projects

A major project is a series of works, activities or services intended to accomplish a definite and indivisible task of a precise economic or technical nature, which has clearly identified goals and whose total cost exceeds € 10 million. In addition, major projects shall be submitted to EU DG Enlargement for approval and shall be subject to a bilateral agreement with the beneficiary country.

The application for approval for major project financing must be accompanied with detailed information, the preparation of which will be fundamental for the positive assessment of the project for IPA financing. Gathering this information will require extensive technical and economic studies, of which some will be eligible for funding under the operational programme. This information does not need therefore to be included in programme. However, major projects identified for funding under a particular programme must have a sufficient level of maturity to ensure that all necessary preparatory studies and measures (i.e. land acquisition, regulatory requirements, etc.) and implementation can be undertaken and completed within the timing allowed for the expenditure of resources committed to the programme.

The list of major projects should provide inter alia:

- Title of the project
- Action and activity under which it will be implemented
- Brief description of its aim and intended results
- Project value and funding sources
- Implementation period
- Stage of preparation

The indicative list should cover a sufficient number of projects commensurate, at the minimum, with the resources available under the initial three year financial period covered by the financial tables. Its updating should not be envisaged outside the periodic revision of the operational programme.

Indicative List of major projects

Project No. 1	Action 2 Investments in water and waste management	Activity 1 Establishing wastewater collection and treatment infrastructure meeting the EU
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		requirements
Project location	Municipality of Bitola	
Project name	Extension and rehabilitation of sewerage system and construction of waste water treatment plant in Bitola and supervision activities	
Investment value (estimated)	EUR 21.800.000	
Description of main project components and /or activities	<p>The main project activities:</p> <ul style="list-style-type: none"> - Upgrading/rehabilitation of existing sewerage system, - Extension of sewerage system where the network is missing to cover approximately 95.000 inhabitants in total, - Construction of new waste water treatment plant with capacity of 105.000 p.e, meeting EU standards on quality of discharged waters to recipients. 	
Description of main project objectives and expected results	<p>The main objective of the project is to prevent pollution of surface and underground waters, reduce the risk of illness due to untreated urban waste water and improve the service and quality of life of population in Bitola.</p> <p>The expected results are: 95.000 inhabitants (year 2030) of Bitola connected to reliable sewerage system where wastewaters are treated at WWTP meeting the EU parameters on effluent,</p> <p>Constructed or extended/rehabilitated separate (storm and foul) sewerage network in Bitola,</p> <p>Construction of modern Waste water treatment plant with primary and secondary treatment and sludge dewatering facilities for 105.000 p.e,</p> <p>Reduction of BOD₅, COD₅, and suspended solids loads by raw sewage discharge to surface waters up to 90%, 75% and 90%.</p>	
Months and year of start of project implementation	2Q 2018 (planning 2017)	
Months and years of end of project implementation	1Q 2020	
Project duration (months)	24 months + 12 months DNP	
Stage of preparation	Within IPA Project from previous Operation Programme for Regional Development (2007-2013) the necessary studies (FS, EIA, CBA) design documentation and tender dossiers for waste water collection and treatment investment project in the Municipality of Bitola will be developed.	
Project No. 2	Action 2	Activity 1

	Investments in water and waste management	Establishing wastewater collection and treatment infrastructure meeting the EU requirements
Project location	Municipality of Tetovo	
Project name	Extension and rehabilitation of sewerage system and construction of waste water treatment plant in Tetovo and supervision activities	
Investment value (estimated)	EUR 23.500.000	
Description of main project components and /or activities	<p>The main project activities:</p> <ul style="list-style-type: none"> - Upgrading/rehabilitation of existing sewerage system, - Extension of sewerage system where the network is missing to cover approximately 87.000 inhabitants in total, - Construction of new waste water treatment plant with capacity of 110.000 p.e, meeting EU standards on quality of discharged waters to recipients. 	
Description of main project objectives and expected results	<p>The main objective of the project is to prevent pollution of surface and underground waters, reduce the risk of illness due to untreated urban waste water and improve the service and quality of life of population in Tetovo.</p> <p>The expected results are: 87.000 inhabitants (year 2030) of Tetovo connected to reliable sewerage system where wastewaters are treated at WWTP meeting the EU parameters on effluent,</p> <p>Constructed or extended/rehabilitated separate (storm and foul) sewerage network in Tetovo,</p> <p>Construction of modern Waste water treatment plant with primary and secondary treatment and sludge dewatering facilities for 110.000 p.e,</p> <p>Reduction of BOD₅ , COD₅, and suspended solids loads by raw sewage discharge to surface waters up to 90%, 75% and 90%.</p>	
Months and year of start of project implementation	3Q 2019 (planning 2018)	
Months and years of end of project implementation	2Q 2021	
Project duration (months)	24 months + 12 months DLP	
Stage of preparation	Within IPA Project from previous Operation Programme for Regional Development (2007-2013) the necessary studies (FS,	

	EIA, CBA) design documentation and tender dossiers for waste water collection and treatment investment project in the Municipality of Tetovo will be developed.	
Project No. 3	Action 2 Investments in water and waste management	Activity 1 Establishing wastewater collection and treatment infrastructure meeting the EU requirements
Project location	City of Skopje	
Project name	Construction of new and rehabilitation of the part of the sewerage network in the City of Skopje and supervision activities	
Investment value (estimated)	EUR 12.500.000	
Description of main project components and /or activities	<p>The main project activities:</p> <ul style="list-style-type: none"> - Construction of right side collector to the station with length of 3.5 km; - Construction of sewerage network with length of 2 km from Boulevard Boris Trajkovski to the collector; • Construction and rehabilitation of sewerage network in priorities areas (app. 35 km) • Extension and rehabilitation of sewerage network in Skopje area; 	
Description of main project objectives and expected results	<p>The main objective of the project is to prevent pollution of surface and underground waters, reduce the risk of illness and improve the service and quality of life of population in City of Skopje.</p> <p>The expected results are: inhabitants of City of Skopje connected to reliable sewerage system.</p> <p>Constructed or extended/rehabilitated separate (storm and foul) sewerage network in City of Skopje.</p>	
Months and year of start of project implementation	2 Q 2016 (planning 2014)	
Months and years of end of project implementation	2Q 2018	
Project duration (months)	24 months + 12 months DLP	
Stage of preparation	Within IPA Project from previous Operation Programme for	

	Regional Development (2007-2013) the necessary studies (FS, CBA) detail design and Volume 3, 4 and 5 of the tender dossier for works contract for rehabilitation and extension of the sewerage network in the City of Skopje will be developed.	
Project No. 4	Action 2 Investments in water and waste management	Activity 2 Establishing of an Integrated and Financially Self-sustainable Waste Management System
Project location	East and Northeast Regions	
Project name	Construction of the selected infrastructure facilities, closure of the noncompliance landfills/dumpsites and supply of equipment for handling and transferring of waste in the East and Northeast regions.	
Investment value (estimated)	EUR 20.000.00	
Description of main project components and /or activities	Constructed and put in operation selected waste treatment and disposal facilities in the East and Northeast regions and equipment for waste collection and transferring of waste put on place. Also, closure of the noncompliance landfills/dumpsites realized.	
Description of main project objectives and expected results	The overall objective of the project is to achieve an integrated and financially self-sustainable waste management system in Northeast and East Regions. The Operation purpose is to support the process for establishing integrated regional waste management system. This will be achieved through construction of waste treatment and disposal facilities, supply of equipment for waste collection and transfer and closure of existing noncompliance landfills/dumpsites according to the EU standards in Northeast and East Regions.	
Months and year of start of project implementation	4Q 2017 (planning 2017)	
- Months and years of end of project implementation	4Q 2019	
Project duration (months)	30 months	
Stage of preparation	Within the IPA project “Preparation of Regional Waste Management Plans and Strategic Environmental Assessments (SEAs) for East and Northeast Regions” is planned to achieve an integrated and financially self-sustainable waste management	

	<p>system through preparation of Regional waste management plans and Strategic environmental assessment in East and Northeast regions. The project started in June 2013 and is expected to be completed in September 2014.</p> <p>Also from the previous Operation Programme for Regional Development (2007-2013) the necessary studies (FS, EIA, CBA) design documentation for establishment of integrated waste management system in East and Northeast Region will be developed.</p>
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4.6.3 Action 3 – Support to Sustainable Development

Aim

To improve protection of the environment by implementation of pilot measures that directly contribute to protection of nature, increase energy efficiency, and mitigate climate change.

EU legislation

The action will contribute to implementation of the EU *acquis* related to climate actions, energy efficiency, and nature protection, in particular of Birds and Habitats directives.

Specific objectives:

- Improved nature protection in protected areas;
- Increased energy efficiency of public buildings;
- Reduced impacts on climate change;
- Increased capacity of public authorities and NGOs for preparation of applications.

Rationale

The Law on Nature Protection in the country defines the minimum standards that need to apply in protected areas, as well the obligations to prepare Management plans for protected areas. Proclamation of each protected site is done by separate law by which management authority is defined. The management authority of a protected area is responsible to prepare and implement the Management plan. However, not many management authorities have enough capacity and financial resources to fully implement measures introduced into the management plan. Thus, they need support in implementation of some of the measures. It is expected that majority of protected areas are candidates to be included into the future NATURA 2000 network; consequently, support in protected area would mean at the same time support in establishment of the network.

Implementation of environment, climate and energy efficiency legislation requires taking measures that directly concern the private and public sector. The legislation imposes many actions to be taken in order to comply with relevant standards or obligations stipulated in different planning documents or legislation. This implies additional costs for the private and public sector. Financing for such expenditure is not always readily available. In addition, there is a general understanding that environmental protection brings only costs to the operators, while benefits are not easily seen. Therefore, it is important to unlock opportunities and benefits related to the implementation of environment and climate change requirements, and to establish win – win situations providing paybacks for implementation of such measures.

NGOs play an important role in promoting environmental protection. They have key position in raising issues for protection of nature before the national and local authorities. With their actions they can bring better understanding to the public about the benefit of protecting the environment and the harmful effect on the environment and public health when no actions are taken. In addition, by taking measures on their own, they can contribute to the implementation of relevant environmental legislation, in particular in

promoting public awareness and participation in the decision making process, taking measures to improve the condition in protected areas, and in promoting sustainable use of natural resources. NGOs were among the first stakeholders to start activities related to climate change and to promote the necessity for taking actions to mitigate climate change. They were involved in different projects related to energy efficiency, and were particularly active during the preparation of the Energy Strategy of the former Yugoslav Republic of Macedonia, the Strategy for promotion of Energy Efficiency and the National Energy Efficiency Action Plan. Due to lack of capacity and financial resources of the public institutions, in many cases NGOs cooperated together in the implementation of measures related to improving energy efficiency in public buildings.

Description

To fulfil the defined objectives, the action will be focused in the following areas:

- Support implementation of measures for promoting environmental protection and sustainable use of natural resources;
- Support of projects that contribute to protection of (potential) Natura 2000 territories;
- Support implementation of measures introduced in Management Plans of protected areas;
- Support implementation of measures that contribute to increase of energy efficiency and combat climate change;
- Support compliance of industry with environmental standards and greening of industry;
- Support in preparation of applications for participating in grant schemes.

Delivery

This action will be delivered by establishing a grant scheme for implementation of pilot measures for sustainable use of natural resources, and a grant scheme for implementation of pilot measures for climate change and energy efficiency. The possibility shall be explored for entrusting implementation of this action to relevant international organizations.

To fulfil the defined objectives, the action will be focused in the following areas:

- Development of a grant scheme for implementation of pilot measures for sustainable use of natural resources;
- Developing of a grant scheme for implementation of pilot measures for climate change and energy efficiency;
- Providing assistance to NGOs, public authorities and management authorities of protected areas for preparation of applications for projects for financing from the grant scheme;
- Providing grants to NGOs and management authorities of natural protected areas to implement measures for sustainable use of natural resources, protection of natural resources and implement measures from Management plans of protected areas;
- Providing grants to public authorities to implement measures for increase of energy efficiency and combat climate change.

Targets and Indicators

Indicator	Targets 2020	Means of Verification	Institution in charge
Grant scheme for implementation of pilot measures for sustainable use of natural resources prepared.	1	Grant Scheme accepted	MoEPP and Delegation of EU

Grant scheme for implementation of pilot measures for climate change and energy efficiency;	1	Grant Scheme accepted	MoEPP and Delegation of EU
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4.6.3.1 Activity 3.1: Implementation of pilot measures for sustainable use of natural resources

Specific objectives:

- Grant scheme for implementation of pilot measures for sustainable use of natural resources is made available;
- NGOs and management authorities of protected areas utilise grants for implementation of pilot measures for protecting nature and implementation of measures from Management plans;
- Improved implementation of Management plans of protected areas.

Rationale

The national categorization consists of 6 categories of protected areas (in accordance to the IUCN categorization) prescribed in the Law on Nature Protection (67/2004 and amendments). About 9% of the country's territory (226087,4 ha) is protected by 86 protected areas, among them 2 strict nature reserves (cat. 1), 3 national parks (cat. 2), 67 monuments of nature (cat. 3), 12 nature park (cat. 4) and one multipurpose area (cat. 6) (source: CDDA 2013). The process of revalorization and reproclamation of most of the existing protected areas has not been undertaken yet, thus the analyses of the actual situation is based on the recommended categories of protection given in the document for Representative protected areas network, prepared in 2010 (GEF/UNDP/MoEPP project on protected areas).

Depending on the category, protected areas are managed by different public authorities. National Parks are managed by Public Institutions specially funded by the Government. However, the municipalities where such protected areas are located manage most of the protected areas, thus being management authorities as well. In some cases, management is delegated to public institutions. All these managing authorities do not have sufficient capacity nor financial resources to fully implement the management plans of the protected areas. Such gap in the capacity and financial resources provide a space for active participation of NGOs, thus allowing them to implement part of the protective measures.

Consequently, many NGO are active in the area of nature protection and through different projects are supporting the management authorities to fulfil some of the obligations envisaged in the Management plans. With implementation of this activity, support to management authorities will be provided to implement measures envisaged in the Management plan, as well to implement projects for sustainable use of natural resources (with focus on water and nature). However, most NGOs and protected areas management authorities have no or limited experience in preparation of applications for projects funded under IPA, and need training and other support in this area. In order to overcome this obstacle, support to NGO and management authorities for participation in utilisation of fund available from the grant scheme is envisaged.

Natural areas, that can be candidates for the Natura 2000 network have not been fully identified yet. . Sites have been identified for the Emerald network, and they represent most of the areas that are protected. It is expected that most of the potential areas for Natura 2000 network shall be already protected natural areas in the country. Consequently, implementing measures envisaged in the Management Plans shall contribute directly to the protection of the Natura 2000 network.

Natural protected areas are very often used by the citizens, who enjoy their beauty but also use some of their natural resources, such as natural lakes, rivers, forest fruits, water resources, herbs, etc. This creates rather significant pressure on some protected areas. Measures need to be taken in order to provide conditions for sustainable use of natural resources and promote sustainable ways of using the protected areas.

In addition, management authorities and NGOs have no or limited experience in preparation of application for project funded under IPA, thus support in this area will be provided.

Possibilities shall be explored, and utilised when possible, for blending financial resources and grants from other IFIs and/or International organizations.

Description

This activity will be delivered by establishing a grant scheme for implementation of measures for nature protection and sustainable use of natural resources.

The following measures are planned to be financed from the grant scheme:

- Implementation of pilot measures introduced into Management Plans of Protected Areas;
- Implementation of measures that promote and implement sustainable use of natural resources (water and nature);
- Implementation of measures for collection and treatment of waste water in protected areas;
- Support for beneficiaries in preparation of applications to participate in the scheme.

Selection criteria

- Availability of management plans;
- Priority measures identified in the management plans;
- Capacity of the beneficiary to implement the project.

Final beneficiary

- MoEPP
- NGOs
- Management authorities of protected areas

Targets and Indicators

Indicator	Targets 2020	Means of Verification	Institution in charge
Number of pilot measures implemented	Base line 0, 0 by 2017, 10 by 2020	Measures accepted by authorities of protected areas and public buildings	MoEPP
Number of measures for sustainable use of natural resource implemented	Base line 0, 0 by 2017, 5 measures by 2020	Measures accepted by authorities of protected areas and public buildings	MoEPP and management authority of protected areas

4.6.3.2 Activity 3.2: Implementation of pilot measures of climate action and energy efficiency in public buildings

Specific objectives:

- Increased energy efficiency;
- Reduced GHG and other emissions.

Rationale

The Law on Energy introduced obligations for public sector to take actions for meeting the national indicative targets for energy saving and targets stipulated in the Strategy for Energy Efficiency and Action Plan for Energy Efficiency. The public sector is obligated to implement measures that will increase energy efficiency of public buildings, installations and equipment, according to article 143 of the Law on Energy. To implement these measures they need to prepare an Annual Programme for energy efficiency and to obtain an energy certificate for public buildings. However, most of the public institutions do not have enough understanding or financial resources to implement these measures. Consequently, they are faced with high-energy bills that prevent them from improving other parts of their facility or activity.

The draft Programme for energy efficiency in public buildings contains an analysis of the energy consumption and expenses in 2241 public buildings under the jurisdiction of 8 Ministries, and envisages realization of economically justified measures for improving the energy efficiency of 2235 buildings. The envisaged value of the investment is about 95 million Euro. With the realization of all of the envisaged measures, savings of energy will amount to about 13,6 ktoe/annually, saving of funds of about 13,97 million Euro/annually, reduction in public energy use of 228 GWh/year, savings of 14 million Euro/year (through 2029), as well as 56 kt of CO₂/year and reduction 1.5% of energy imports (~1.5 million Euro/year). Such activities will create 2,600-3,000 jobs in energy auditing, detailed designs, construction, fostering of commercial ESCO industry. This will contribute to NEEAP targets.

One of the ways to implement the measures for improving energy efficiency in public buildings of the draft National Program for Energy Efficiency in the former Yugoslav Republic of Macedonia (Phase 1) is by establishing an Energy Efficiency Fund. According to Article 11 of the Energy Service Directive 2006/32/EC, which is obligatory for the country under the Energy Community Treaty, countries may establish a fund or funds to finance energy efficiency improvement programs and other energy efficiency improvement measures. Also, according to the new EU Energy Efficiency Directive 2012/27/EU, which for now is recommended to be implemented in Energy Community Contracting Parties, in article 20 is stated that "*Member States may set up an Energy Efficiency National Fund. The purpose of this fund shall be to support national energy efficiency initiatives*".

For the purpose of implementation of EE measures for public buildings, funds are needed to support the implementation of pilot measures for energy efficiency in public buildings.

Some activities are being taken by NGOs active in the area of climate change. They are particularly involved in public awareness raising and in implementing some of the measures. However, there is no systematic approach to how NGOs can be supported in taking long term actions that will provide better conditions for promoting climate change issues and will strengthen their capacity for implementing some of the actions.

In addition, public institutions and NGOs have no or limited experience in preparation of applications for projects funded under IPA, thus support in this area will be provided.

Description

The activity will be delivered by establishing a grant scheme for implementation of pilot measures for climate change and energy efficiency in public buildings.

The following measures are planned to be financed from the grant scheme:

- Preparation of plans to increase energy efficiency;
- Implementation of pilot measures to increase energy efficiency in public buildings;
- Carrying out of energy audits, project designs and project design audits;
- Support for beneficiaries in preparation of applications to participate in the scheme.

Selection criteria

- Implementation of the measures introduced as an obligation by relevant legislation;
- Measures from National Energy Efficiency Action Plan;
- Priority measures envisaged in climate action related plans.

Final beneficiary

- MoEPP;
- Ministry of Economy;
- Public entities (local authorities, schools, kindergartens, hospitals, public bodies, etc.);
- NGOs.

Targets and Indicators

Indicator	Targets 2020	Means of Verification	Institution in charge
Submission for application to use funds from the grant scheme	10 applications	Submitted application to use funds from the grand scheme	MoEPP, ME
Number of measures for energy efficiency in public building implemented	Base line 0, 0 by 2017, 5 measures by 2020	Measures accepted by authorities of protected areas and public building	MoEPP, ME and management authorities of public buildings
Ktoe/year saved in public buildings (2012 baseline is 40.8 Ktoe)	13.6 Ktoe/year by 2020	Energy reports	Energy Agency, Ministry of Economy

Overview table

1.1.1 Action 1

<i>Action title</i>	<i>Approximation of environment and climate action legislation in priority areas</i>
<i>Specific objective</i>	<ul style="list-style-type: none"> • To harmonise national legislation in prioritised areas with EU legislation; • To prepare planning documents that allow undertaking of measures and activities for implementation of the legislation within specified timeframe; • To improve the environmental statistics; • To improve administrative capacity for implementation and enforcement of the environmental legislation, thus leading the process of accession to EU; • To improve the governance of the environmental sector and gradual move to the sector based approach.
<i>Action results</i>	<ul style="list-style-type: none"> • Development of primary and secondary legislation to complete the transposition process; • Completion of strategic planning by preparing missing sector

	<p>strategic planning documents, addressing priority needs;</p> <ul style="list-style-type: none"> • Strengthening the capacities at national and local levels for implementation and enforcement of environmental and climate action legislation; • Strengthening the capacity for monitoring, data collection, data management and reporting; • Supply of monitoring and other equipment to support implementation and enforcement of the legislation; • Support to progressive move to the sector based approach and implement sector based approach conditions. 																				
<i>Activities</i>	<p>Activity 1.1 Preparation of planning documents in priority areas</p> <p>Activity 1.2 Transposition of Environmental and Climate acquis</p> <p>Activity 1.3 Strengthening capacities for implementation and enforcement of environment and climate change legislation in priority areas</p>																				
<i>Indicative list of major projects</i>	No major project envisaged																				
<i>Implementation arrangements</i>	Ministry of Environment and Physical Planning is in charge of management; Delivery shall be done via a service and supply contracts and twining projects.																				
<i>Performance indicators</i>	<table border="1"> <thead> <tr> <th>Indicator</th> <th>Targets</th> <th>Means of Verification</th> <th>Institution in charge</th> </tr> </thead> <tbody> <tr> <td>Level of transposition of environmental legislation</td> <td>Base line 69%, Minimum 75% by 2017 85% by 2020</td> <td>Progress monitoring. Tables of Concordance</td> <td>MoEPP and EC</td> </tr> <tr> <td>Completion of strategic framework</td> <td>Minimum 40% by 2017, 80% by 2020</td> <td>Meta plan for planning documents</td> <td>MoEPP</td> </tr> <tr> <td>Completion of environmental statistics framework</td> <td>Minimum 60% by 2017, 80% by 2020</td> <td>Framework for improvement of environmental statistics</td> <td>SSO, MoEPP</td> </tr> <tr> <td>Institutions responsible for approximation of environmental legislation in priority areas are capable to undertake approximation tasks</td> <td>Minimum 40% by 2017 and 80 % by 2020 of the staff of relevant institutions trained</td> <td>EC Progress Reports. Progress monitoring, Implementation Questionnaires. Reports regarding</td> <td>MoEPP and EC</td> </tr> </tbody> </table>	Indicator	Targets	Means of Verification	Institution in charge	Level of transposition of environmental legislation	Base line 69%, Minimum 75% by 2017 85% by 2020	Progress monitoring. Tables of Concordance	MoEPP and EC	Completion of strategic framework	Minimum 40% by 2017, 80% by 2020	Meta plan for planning documents	MoEPP	Completion of environmental statistics framework	Minimum 60% by 2017, 80% by 2020	Framework for improvement of environmental statistics	SSO, MoEPP	Institutions responsible for approximation of environmental legislation in priority areas are capable to undertake approximation tasks	Minimum 40% by 2017 and 80 % by 2020 of the staff of relevant institutions trained	EC Progress Reports. Progress monitoring, Implementation Questionnaires. Reports regarding	MoEPP and EC
Indicator	Targets	Means of Verification	Institution in charge																		
Level of transposition of environmental legislation	Base line 69%, Minimum 75% by 2017 85% by 2020	Progress monitoring. Tables of Concordance	MoEPP and EC																		
Completion of strategic framework	Minimum 40% by 2017, 80% by 2020	Meta plan for planning documents	MoEPP																		
Completion of environmental statistics framework	Minimum 60% by 2017, 80% by 2020	Framework for improvement of environmental statistics	SSO, MoEPP																		
Institutions responsible for approximation of environmental legislation in priority areas are capable to undertake approximation tasks	Minimum 40% by 2017 and 80 % by 2020 of the staff of relevant institutions trained	EC Progress Reports. Progress monitoring, Implementation Questionnaires. Reports regarding	MoEPP and EC																		

			implementation of activities	
	Availability of information to public, decision making and reporting	Information on water and waste management, air protection is available according to EU requirements by 2020	Country data. Reporting status	MoEPP and EEA
	Completion of sector based approach conditions/framework	Minimum 40% by 2017, 80% by 2020	Policy Dialogue discussions, Road Map	MoEPP and EC

1.1.2 Action 2

<i>Action title</i>	<i>Investment in water and waste management</i>
<i>Specific objective</i>	<ul style="list-style-type: none"> • Promotion of sustainable development especially through minimizing the adverse effect of inappropriate management of waste water and waste; • Reduction of untreated wastewater discharged to recipients in the larger agglomerations (over 10 000 PE) where collection of waste water is insufficient and no treatment facility exist or if so, are in unsatisfactory condition; • Reduction of environment deterioration incurred by inappropriate waste management through the introduction of integrated waste management system on a regional level, in compliance with the waste related <i>acquis</i>, with emphasis on increased waste separation at source, recycling and composting; • Increase the number of the population served by the wastewater and waste collection and disposal facilities that are in compliance with environmental <i>acquis</i>.
<i>Action results</i>	<p>Implementation of investments project aimed at upgrading and establishing infrastructure for wastewater collection and treatment in agglomeration over 10000 PE and investments in waste management infrastructure and equipment. The activities in the water sector shall be focused on agglomerations over 10 000 PE.</p> <p>Establishment of an integrated infrastructure for waste collection and treatment, with special emphasis on source separation and secondary separation of recyclables, extension of recycling capacities and treatment of biodegradable waste.</p>
<i>Activities</i>	The priority activities within this action are designed to support the improvement of the environmental infrastructure focusing on wastewater and

	<p>waste areas:</p> <p>Activity 1.1 Establishing waste water collection and treatment infrastructure, meeting the EU requirements</p> <p>Activity 1.2 Establishing integrated and financially self-sustainable waste management system</p>																			
<i>Indicative list of major projects</i>	<p>Major project 1: Extension and rehabilitation of the sewerage system and construction of a waste water treatment plant in Bitola, and supervision activities</p> <p>Major project 2: Extension and rehabilitation of the sewerage system and construction of a waste water treatment plant in Tetovo, and supervision activities</p> <p>Major project 3: Construction of a new and partial rehabilitation of the sewerage network in the City of Skopje, and supervision activities</p> <p>Major project 4: Construction of selected infrastructure facilities, closure of noncompliance landfills/dumpsites, and supply of equipment for handling and transferring of waste in the East and North-East regions</p>																			
<i>Implementation arrangements</i>	<p>Ministry of Environment and Physical Planning in charge of management;</p> <p>Delivery shall be done via service and supply contracts and works contracts. Possibilities shall be explored, and utilised when possible, for blending IPA funds with financial resources and grants from other IFs.</p>																			
<i>Performance indicators</i>	<table border="1"> <thead> <tr> <th>Indicator</th> <th>Targets</th> <th>Means of Verification</th> <th>Institution in charge</th> </tr> </thead> <tbody> <tr> <td>Increase in households connected to sewerage systems (baseline in 2014 65%)</td> <td>68% by 2017 and 75 % by 2020</td> <td>State Statistic Office (SSO)</td> <td>MoEPP</td> </tr> <tr> <td>Increase in households connected to the wastewater treatment plants for agglomerations above 10,000 p.e. (baseline in 2014 12.5%)</td> <td>16.8% by 2017 and 21 % by 2020</td> <td>SSO</td> <td>MoEPP</td> </tr> <tr> <td>Increase household served with waste collection service (baseline in 2014 70%)</td> <td>75% by 2017 and 80 % by 2020</td> <td>SSO</td> <td>MoEPP</td> </tr> </tbody> </table>				Indicator	Targets	Means of Verification	Institution in charge	Increase in households connected to sewerage systems (baseline in 2014 65%)	68% by 2017 and 75 % by 2020	State Statistic Office (SSO)	MoEPP	Increase in households connected to the wastewater treatment plants for agglomerations above 10,000 p.e. (baseline in 2014 12.5%)	16.8% by 2017 and 21 % by 2020	SSO	MoEPP	Increase household served with waste collection service (baseline in 2014 70%)	75% by 2017 and 80 % by 2020	SSO	MoEPP
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1.1.3 Action 3

<i>Action title</i>	<i>Support to sustainable development.</i>			
<i>Specific objective</i>	<ul style="list-style-type: none"> • Improved nature protection in protected areas; • Increased energy efficiency of public buildings; • Reduced impacts on climate change; • Increased capacity of public authorities and NGOs for preparation of applications. 			
<i>Action results</i>	<ul style="list-style-type: none"> • Support implementation of measures for promoting environmental protection and sustainable use of natural resources; • Support of projects that contribute to the protection of (potential) Natura 2000 territories; • Support implementation of measures that contribute to increased energy efficiency; • Support compliance of industry with environmental standards and greening of industry; • Support in preparation of applications for participating in the grant schemes. 			
<i>Activities</i>	<p>Activity 1.1 Implementation of pilot measures for sustainable use of natural resources.</p> <p>Activity 1.2 Implementation of pilot measures of climate action and energy efficiency in public buildings</p>			
<i>Indicative list of major projects</i>	There is no major project envisaged in this action.			
<i>Implementation arrangements</i>	<p>Ministry of Environment and Physical Planning is in charge of management;</p> <p>Delivery shall be done by establishing a grant scheme for implementation of pilot measures for sustainable use of natural resources and a grant scheme for implementation of pilot measures for climate change and energy efficiency.</p> <p>The possibility shall be explored for entrusting implementation of this action to relevant international organizations.</p>			
<i>Performance indicators</i>	Indictor	Targets 2020	Means of Verification	Institution in charge
	Grant scheme for implementation of pilot measures for sustainable use of natural resources prepared.	1	Grant Scheme accepted	MoEPP and Delegation of EU
	Grant scheme for implementation of pilot measures for climate change and energy efficiency;	1	Grant Scheme accepted	MoEPP and Delegation of EU

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5 Financial tables by action and year including co-financing rates if applicable

YEAR 2014	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co- financing rate
	(x+y)	(x+y)	X	y	x/(x+y)
Action 1 Approximation of environmental and climate change legislation in priorities areas (= Sum 1.1, 1.2 and 1.3)	1.682.352,94 €	1.682.352,94 €	1.430.000,00 €	252.352,94 €	85 %
Activity 1.1: Preparation of planning documents in priority areas	705.882,35 €	705.882,35 €	600.000,00 €	105.882,35 €	85 %
Activity 1.2: Transposition of Environment and Climate Acquis	270.588,24 €	270.588,24 €	230.000,00 €	40.588,24 €	85 %
Activity 1.3: Strengthening capacity for implementation and enforcement of environment and climate action	705.882,35 €	705.882,35 €	600.000,00 €	105.882,35 €	85 %

legislation in priority areas					
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Action 2 Investment in water and waste management (= Sum 2.1 and 2.2)	11.258.823,53	11.258.823,53	9.570.000,00 €	1.688.823,53	85 %
Activity 2.1 Establishing wastewater collection and treatment infrastructure meeting the EU requirements	11.258.823,53	11.258.823,53	9.570.000,00 €	1.688.823,53	85 %
Activity 2.2 Establishing of an Integrated and Financially Self-sustainable Waste Management System	0.00 €	0.00 €	0.00 €	0.00 €	85 %

Action 3 Support to Sustainable Development (= Sum 3.1 and 3.2)	4.000.000,00 €	4.000.000,00 €	4.000.000,00 €	0.00 €	100 %
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Activity 3.1 Implementation of pilot measures for sustainable use of natural resources	4.000.000,00 €	4.000.000,00 €	4.000.000,00 €	0.00 €	100 %
Activity 3.2 Implementation of pilot measures of climate action and energy efficiency in public buildings	0.00 €	0.00 €	0.00 €	0.00 €	0 %

YEAR 2015	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co-financing rate
	(x+y)	(x+y)	X	y	x/(x+y)
Action 1 Approximation of environmental and climate change legislation in priorities areas (= Sum 1.1, 1.2 and 1.3)	3.929.411,76 €	3.929.411,76 €	3.340.000,00 €	589.411,76 €	85 %

Activity 1.1: Preparation of planning documents in priority areas	1.764.705,88 €	1.764.705,88 €	1.500.000,00 €	264.705,88 €	85 %
Activity 1.2: Transposition of Environment and Climate Acquis	400.000,00 €	400.000,00 €	340.000,00 €	60.000,00 €	85 %
Activity 1.3: Strengthening capacity for implementation and enforcement of environment and climate action legislation in priority areas	1.764.705,88 €	1.764.705,88 €	1.500.000,00 €	264.705,88 €	85 %

Action 2 Investment in water and waste management (= Sum 2.1 and 2.2)	17.676.470,59 €	17.676.470,59 €	15.025.000,00 €	2.651.470,59 €	85 %
Activity 2.1 Establishing wastewater collection and treatment infrastructure meeting the EU	15.058.823,53 €	15.058.823,53 €	12.800.000,00 €	2.258.823,53 €	85 %

requirements					
Activity 2.2 Establishing of an Integrated and Financially Self-sustainable Waste Management System	2.617.647,06 €	2.617.647,06 €	2.225.000,00 €	392.647,06 €	85 %

Action 3 Support to Sustainable Development (= Sum 3.1 and 3.2)	0.00 €	0.00 €	0.00 €	0.00 €	85 %
Activity 3.1 Implementation of pilot measures for sustainable use of natural resources	0.00 €	0.00 €	0.00 €	0.00 €	85 %
Activity 3.2 Implementation of pilot measures of climate action and energy efficiency in public buildings	0.00 €	0.00 €	0.00 €	0.00 €	85 %

YEAR 2016	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co- financing rate
	(x+y)	(x+y)	x	y	x/(x+y)
Action 1 Approximation of environmental and climate change legislation in priorities areas (= Sum 1.1, 1.2 and 1.3)	2.000.000,00 €	2.000.000,00 €	1.700.000,00 €	300.000,00 €	85 %
Activity 1.1: Preparation of planning documents in priority areas	529.411,76 €	529.411,76 €	450.000,00 €	79.411,76 €	85 %
Activity 1.2: Transposition of Environment and Climate <i>Acquis</i>	647.058,82 €	647.058,82 €	550.000,00 €	97.058,82 €	85 %
Activity 1.3: Strengthening capacity for implementation and enforcement of environment and climate action legislation in priority areas	823.529,41 €	823.529,41 €	700.000,00 €	123.529,41 €	85 %

Action 2 Investment in water and waste management (= Sum 2.1 and 2.2)	10.941.176,47 €	10.941.176,47 €	9.300.000,00 €	1.641.176,47 €	85 %
Activity 2.1 Establishing wastewater collection and treatment infrastructure meeting the EU requirements	6.941.176,50 €	6.941.176,50 €	5.900.000,00 €	1.041.176,47 €	85 %
Activity 2.2 Establishing of an Integrated and Financially Self- sustainable Waste Management System	4.000.000,00 €	4.000.000,00 €	3.400.000,00 €	600.000,00 €	85 %

Action 3 Support to Sustainable Development (= Sum 3.1 and 3.2)	0,00 €	0,00 €	0,00 €	0,00 €	85 %
Activity 3.1	0,00 €	0,00 €	0,00 €	0,00 €	85 %

Implementation of pilot measures for sustainable use of natural resources					
Activity 3.2 Implementation of pilot measures of climate action and energy efficiency in public buildings	0,00 €	0,00 €	0,00 €	0,00 €	85 %

YEAR 2017	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co-financing rate
	(x+y)	(x+y)	x	y	x/(x+y)
Action 1 Approximation of environmental and climate change legislation in priorities areas (= Sum 1.1, 1.2 and 1.3)	5.335.294,12 €	5.335.294,12 €	4.535.000,00 €	800.294,12 €	85 %
Activity 1.1: Preparation of planning documents in priority areas	1.570.588,24 €	1.570.588,24 €	1.335.000,00 €	235.588,24 €	85 %

Activity 1.2: Transposition of Environment and Climate Acquis	1.882.352,94 €	1.882.352,94 €	1.600.000,00 €	282.352,94 €	85 %
Activity 1.3: Strengthening capacity for implementation and enforcement of environment and climate action legislation in priority areas	1.882.352,94 €	1.882.352,94 €	1.600.000,00 €	282.352,94 €	85 %

Action 2 Investment in water and waste management (= Sum 2.1 and 2.2)	10.235.294,12 €	10.235.294,12 €	8.700.000,00 €	1.535.294,12 €	85 %
Activity 2.1 Establishing wastewater	6.117.647,06 €	6.117.647,06 €	5.200.000,00 €	917.647,06 €	85 %

collection and treatment infrastructure meeting the EU requirements					
Activity 2.2 Establishing of an Integrated and Financially Self-sustainable Waste Management System	4.117.647,06 €	4.117.647,06 €	3.500.000,00 €	617.647,06 €	85 %

Action 3 Support to Sustainable Development (= Sum 3.1 and 3.2)	4.000.000,00 €	4.000.000,00 €	3.400.000,00 €	600.000,00 €	85 %
Activity 3.1 Implementation of pilot measures for sustainable use of natural resources	0,00 €	0,00 €	0,00 €	0,00 €	85 %
Activity 3.2 Implementation of pilot measures of climate action and energy efficiency in public buildings	4.000.000,00 €	4.000.000,00 €	3.400.000,00 €	600.000,00 €	85 %

YEAR 2018	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co- financing rate
	(x+y)	(x+y)	x	y	x/(x+y)
Action 1 Approximation of environmental and climate change legislation in priorities areas (= Sum 1.1, 1.2 and 1.3)	4.628.132,94 €	4.628.132,94 €	3.933.913,00 €	694.219,94 €	85 %
Activity 1.1: Preparation of planning documents in priority areas	1.451.662,35 €	1.451.662,35 €	1.233.913,00 €	217.749,35 €	85 %
Activity 1.2: Transposition of Environment and Climate Acquis	1.411.764,71 €	1.411.764,71 €	1.200.000,00 €	211.764,71 €	85 %
Activity 1.3: Strengthening capacity for implementation and enforcement of environment and climate action legislation in priority areas	1.764.705,88 €	1.764.705,88 €	1.500.000,00 €	264.705,88 €	85 %

Action 2 Investment in water and waste management (= Sum 2.1 and 2.2)	19.058.823,53 €	19.058.823,53 €	16.200.000,00 €	2.858.823,53 €	85 %
Activity 2.1 Establishing wastewater collection and treatment infrastructure meeting the EU requirements	9.529.411,76 €	9.529.411,76 €	8.100.000,00 €	1.429.411,76 €	85 %
Activity 2.2 Establishing of an Integrated and Financially Self- sustainable Waste Management System	9.529.411,76 €	9.529.411,76 €	8.100.000,00 €	1.429.411,76 €	85 %

Action 3 Support to Sustainable Development (= Sum 3.1 and 3.2)	0.00 €	0.00 €	0.00 €	0.00 €	85 %
Activity 3.1 Implementation of pilot measures for sustainable use of natural resources	0.00 €	0.00 €	0.00 €	0.00 €	85 %

Activity 3.2 Implementation of pilot measures of climate action and energy efficiency in public buildings	0.00 €	0.00 €	0.00 €	0.00 €	85 %
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YEAR 2019	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co- financing rate
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(x+y)

(x+y)

x

y

x/(x+y)

Action 1 Approximation of environmental and climate change legislation in priorities areas (= Sum 1.1, 1.2 and 1.3)	1.404.603,53 €	1.404.603,53 €	1.193.913,00 €	210.690,53 €	85 %
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Activity 1.1: Preparation of planning documents in priority areas	581.074,12 €	581.074,12 €	493.913,00 €	87.161,12 €	85 %
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Activity 1.2: Transposition of Environment and Climate <i>Acquis</i>	235.294,12 €	235.294,12 €	200.000,00 €	35.294,12 €	85 %
Activity 1.3: Strengthening capacity for implementation and enforcement of environment and climate action legislation in priority areas	588.235,29 €	588.235,29 €	500.000,00 €	88.235,29 €	85 %

Action 2 Investment in water and waste management (= Sum 2.1 and 2.2)	9.176.470,59 €	9.176.470,59 €	7.800.000,00 €	1.376.470,59 €	85 %
Activity 2.1 Establishing wastewater collection and treatment infrastructure meeting the EU requirements	5.647.058,82 €	5.647.058,82 €	4.800.000,00 €	847.058,82 €	85 %
Activity 2.2 Establishing of an Integrated and Financially Self- sustainable Waste	3.529.411,76 €	3.529.411,76 €	3.000.000,00 €	529.411,76 €	85 %

Management System					
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Action 3 Support to Sustainable Development (= Sum 3.1 and 3.2)	0.00 €	0.00 €	0.00 €	0.00 €	85 %
Activity 3.1 Implementation of pilot measures for sustainable use of natural resources	0.00 €	0.00 €	0.00 €	0.00 €	85 %
Activity 3.2 Implementation of pilot measures of climate action and energy efficiency in public buildings	0.00 €	0.00 €	0.00 €	0.00 €	85 %

YEAR 2020	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co-financing rate
	(x+y)	(x+y)	x	y	x/(x+y)
Action 1 Approximation of environmental and climate change	5.143.734,12 €	5.143.734,12 €	4.372.174,00 €	771.560,12 €	85 %

legislation in priorities areas (= Sum 1.1, 1.2 and 1.3)					
Activity 1.1: Preparation of planning documents in priority areas	67.263,53 €	67.263,53 €	57.174,00 €	10.089,53 €	85 %
Activity 1.2: Transposition of Environment and Climate <i>Acquis</i>	1.782.352,94 €	1.782.352,94 €	1.515.000,00 €	267.352,94 €	85 %
Activity 1.3: Strengthening capacity for implementation and enforcement of environment and climate action legislation in priority areas	3.294.117,65 €	3.294.117,65 €	2.800.000,00 €	494.117,65 €	85 %

Action 2 Investment in water and waste management (= Sum 2.1 and 2.2)	21.664.247,17 €	21.664.247,17 €	18.414.610,09 €	3.249.637,08 €	85 %
Activity 2.1 Establishing wastewater	14.605.423,64 €	14.605.423,64€	12.414,610.09 €	2,190,813.55 €	85 %

collection and treatment infrastructure meeting the EU requirements					
Activity 2.2 Establishing of an Integrated and Financially Self-sustainable Waste Management System	7.058.823,53 €	7.058.823,53 €	6.000.000,00 €	1.058.823,53 €	85 %

Action 3 Support to Sustainable Development (= Sum 3.1 and 3.2)	0.00 €	0.00 €	0.00 €	0.00 €	85 %
Activity 3.1 Implementation of pilot measures for sustainable use of natural resources	0.00 €	0.00 €	0.00 €	0.00 €	85 %
Activity 3.2 Implementation of pilot measures of climate action and energy efficiency in public buildings	0.00 €	0.00 €	0.00 €	0.00 €	85 %

Total/ Aggregated Per year	2014	2015	2016	2017	2018	2019	2020
TOTAL	<i>16,941,176.47 €</i>	<i>21.605.882,35 €</i>	<i>12.941.176,47 €</i>	<i>19.570.588,24 €</i>	<i>23.686.956,47 €</i>	<i>10,581,074.12 €</i>	<i>26.807.981,29 €</i>
EU / IPA	<i>15.000.000,00 €</i>	<i>18.365.000,00 €</i>	<i>11.000.000,00 €</i>	<i>16.635.000,00 €</i>	<i>20.133.913 €</i>	<i>8.993.913,00 €</i>	<i>22.786.784,10 €</i>
CC National Public	<i>1,941,176.47 €</i>	<i>3.240.882,35 €</i>	<i>1.941.176,47 €</i>	<i>2.935.588,24 €</i>	<i>3.553.043,47 €</i>	<i>1,587,161.12 €</i>	<i>4.021.197,19€</i>

TOTAL/AGGRE G. 2014-2017	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co-financing rate
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(x+y)

(x+y)

x

y

x/(x+y)

Action 1 (= Sum 1.1, 1.2 and 3)	12.947.058,82 €	12.947.058,82 €	11.005.000,00 €	1.942.058,82 €	85 %
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Action 2 (= Sum 2.1 and 2.2)	50.111.764,71 €	50.111.764,71 €	42.595.000,00 €	7.516.764,71 €	85 %
Action 3 (= Sum 3.1 and 3.2)	8.000.000,00 €	8.000.000,00 €	7.400.000,00 €	600.000,00 €	85 %
TOTAL	71.058.823,53 €	71.058.823,53 €	61.000.000,00 €	10.058.823,53 €	85 %

TOTAL/AGGREG. 2018-2020	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co-financing rate
	(x+y)	(x+y)	x	y	x/(x+y)
Action 1 (= Sum 1.1, 1.2 and 3)	11.176.470,59 €	11.176.470,59 €	9.500.000,00 €	1.676.470,59 €	85%
Action 2 (= Sum 2.1 and 2.2)	49.899.541,29 €	49.899.541,29 €	42.414.610,10 €	7.484.931,19 €	85%
Action 3 (= Sum 3.1 and 3.2)	0.00	0.00	0.00	0.00	
TOTAL	61.076.011.88 €	61.076.011.88 €	51.914.610,10 €	9.161.401,78 €	85 %

TOTAL/AGG REG. 2014-2020	Total Cost	Total Public Eligible Cost	EU IPA	CC National Public	IPA co-financing rate
	(x+y+z)	(x+y)	x	y	x/(x+y)
Action 1 (= Sum 1.1, 1.2 and 3)	24.123.529,41 €	24.123.529,41 €	20.505.000,00 €	3.618.529,41 €	85 %
Action 2 (= Sum 2.1 and 2.2)	100.011.306,00 €	100.011.306,00 €	85.009.610,10 €	15.001.695,90€	85 %
Action 3 (= Sum 3.1 and 3.2)	8.000.000,00 €	8.000.000,00 €	7.400.000,00 €	600.000,00 €	92.50%
TOTAL	132.840.717,75 €	132.840.717,75 €	112.914.610,10 €	19.220.225,31 €	85.45 %

6 Overview of the consultation process

In order to improve and safeguard partnership and transparent decision making process, MoEPP has ensured that a Sector Operational Programme is developed through different means of consultations.

The consultation process will guarantee that the preparation of the Sector Operational Programme at different stages of programming will be discussed and consulted with stakeholders relevant to the sector, beneficiaries, public authorities, NGOs and other economic and social partners.

After the first draft of the programme was prepared, in April 2014, it was discussed with relevant departments within the Ministry of Environment and Physical Planning, the Administration for Environment and State Environmental Inspectorate. Several meetings were held, where different policy options, actions and activities for implementation were discussed and agreed.

The consultation process for preparation, and later for implementation of the Sector Operational Programme will be conducted in three levels:

- Level I–Consultations with institutions appointed in the Programme as competent authorities for the Environment Sector

The Ministry of Environment and Physical Planning will organise a **Sector Working Group for Environment and Climate** with **the aim to** strengthen inter-institutional cooperation and to ensure efficient coordination of activities related to programming and monitoring of EU funds, other bilateral and multilateral assistance and to propose relevant measures and activities in environment and climate sectors. It will have an essential role in providing coordination with different donors where needs for assistance and available resources shall be discussed and possibly agreed. SWGEC will be led by MoEPP, and will be composed of representatives from the Secretariat of European Affairs and lead donors in the country, such as the EU Delegation, IFIs and other international organizations and other bilateral donors. In addition, SWGEC will include the following institutions: Ministry of Economy – Energy Department, Ministry of Health, Ministry of Transport and Communication, Ministry of Finance, Ministry of Local Self Government, Association of the units of local self-government and representatives from NGOs.

In addition, in May 2014 the Ministry of Environment and Physical Planning sent the draft Programme to the Ministry of Economy, Ministry of Health and Ministry of Transport and Communication in order to receive from them opinions and proposals for improvement of the programme.

- Level II–Consultations with the municipalities and regional bodies affected by the scope of activities included in the Programme

In order to provide better coordination and cooperation with the local level, a consultation body was established within the Association of the units of local self-government for initiating proposals to be financed under IPA. This body will be included in the consultation process for adoption and during implementation of this programme. In addition, the Ministry of Environment and Physical Planning will organise a separate meeting with the municipalities and public utility companies sector expecting to be beneficiaries of the projects under this programme. This will allow at the earliest stage municipalities and PUC to become familiarized with the activities, obligations and responsibilities they will have during the implementation of the programme.

- Level III – Consultations with other stakeholders

According to the Decree on public participation (2008), MoEPP is obliged to involve the public during adoption of plans, programs in field of environment. On 19 May 2014, the Ministry of Environment and Physical Planning, organised a consultation meeting for the Draft-Annual Programme with relevant stakeholders that will be involved in the implementation of the programme. Representatives from NGOs, local authorities, donor community, ZELS, and representatives from central government authorities were invited to the meeting. In addition, the MoEPP is planning to organise other consultation meeting during

the implementation of the programme with other relevant stakeholders. In this regard, several stakeholders are considered very important for the implementation of the programme: NGOs, public institutions, management authorities of natural protected areas, as well as other stakeholders that can contribute in the formulation of the actions and activities envisaged in the programme.

7 Implementation arrangements

7.1 Description of relevant structures and authorities for management and control of the programme

Bodies and authorities

Based on the Commission Implementation Regulation (EU) No 447/2014 on the specific rules of Implementing Regulation (EU) No 231/2014 of the European Parliament and of the Council establishing an Instrument for pre-accession assistance (IPA II), the Government of the country will adopt its own legal act/s, which will establish the following structures and authorities needed for the management, control, supervision, monitoring, evaluation, reporting and internal audit of IPA II assistance:

- the National IPA Coordinator (NIPAC)
- the National Authorising Officer (NAO)
- National Fund
- Audit Authority
- the Operating Structure

The National Authorising Officer (NAO) shall establish a management structure composed of a National Fund and a support office for the NAO. The country will also provide the audit authority.

National IPA Coordinator (NIPAC) is a high-ranking representative of the government who will be the main counterpart of the European Commission for the overall process of strategic planning, coordination of programming, monitoring of implementation, evaluation and reporting of IPA II assistance.

In particular the NIPAC shall:

1. Ensure coordination within the IPA II beneficiary's administration and with other donors, and maintain a close link between the use of IPA II assistance and the general accession process;
2. Coordinate the participation of IPA II beneficiaries in the relevant territorial cooperation programmes, in particular cross-border cooperation programmes referred to in points (a) to (c) of Article 27 of the Regulation No 447/2014 and, if appropriate, transnational or interregional cooperation programmes established and implemented under Regulation (EU) No 1299/2013.
3. Ensure that the objectives set out in the actions or programmes proposed by the IPA II beneficiaries are coherent with the objectives in the Country Strategy Papers and take due account of the relevant macro-regional and sea basin strategies;
4. Endeavour that the IPA II beneficiary's administration take all necessary steps to facilitate the implementation of the related programmes.

Additionally NIPAC shall take measures to ensure that the objectives set out in the actions or programmes for which budget implementation tasks have been entrusted are appropriately addressed during the implementation of IPA II assistance.

National Authorising Officer (NAO) is a high-ranking official in the administration of the former Yugoslav Republic of Macedonia and shall bear the overall responsibility for the financial management of IPA II assistance in the country, and for ensuring the legality and regularity of expenditure.

The NAO in particular shall be responsible for:

- (a) the management of IPA II accounts and financial operations;

- (b) the effective functioning of the internal control systems for the implementation of IPA II assistance;
- (c) putting into place effective and proportionate anti-fraud measures taking into account identified risks;
- (d) launching the process provided for in Article 14 of the *Commission Implementation Regulation (EU) No 447/2014 on the specific rules of Implementing Regulation (EU) No 231/2014 of the European Parliament and of the Council establishing an Instrument for pre-accession assistance (IPA II)*.

The NAO shall follow up the reports of the audit authority and shall provide an annual management declaration to the Commission. The annual management declaration shall be drawn up per programme, in the form specified in the Framework Agreement, based on actual supervision by the NAO of the internal control systems throughout the financial year. At the end of the implementation of a programme, the NAO shall provide a final statement of expenditure. NAO shall establish a management structure composed of a National Fund and a support office for the NAO.

The National Fund shall be located in a national level ministry of the IPA II beneficiary with central budgetary competence. It shall support the NAO in fulfilling his/her tasks, in particular those referred to management of IPA II accounts and financial operations.

The NAO Support Office shall assist the NAO in fulfilling his/her tasks in particular those referred to effective functioning of the internal control systems for the implementation of IPA II assistance.

An Operating Structure shall be established by the beneficiary country to implement and manage the IPA II assistance. The operation structure will be responsible for the implementation, information and visibility, monitoring and reporting of programmes, as well as for evaluation whenever relevant, in accordance with the principle of sound financial management, ensuring the legality and regularity of the expenditure incurred in the implementation of the programmes under its responsibility.

The Operating Structure shall operate as a decentralised system.

The Ministry of Environment and Physical Planning as an IPA body with obligations delegated by the NAO shall be part of the Operating Structure and responsible for operations in the sector Environment.

The extent to which such functions shall be fulfilled by the MoEPP shall be defined by special agreements.

Administrative functions related to the role of the MoEPP in IPA management are concentrated in the Department for EU, and particularly in the Unit for Coordination and Technical Implementation of the Instrument for Pre-accession Assistance (IPA), and Unit for Programming and Monitoring of the Implementation under the IPA (hereafter IPA Units). These two IPA Units shall be directly involved in the implementation of delegated IPA programming and implementation functions and shall consist of 4 employees each. The Head of the Department for EU has the overall responsibility for organisation of work and coordination of activities implementing the Operating Structure functions for the environment and climate action sector.

Considering the experience of IPA implementation, existing capacities and capabilities in the MoEPP are considered as not fully sufficient for successful implementation of IPA2 and require strengthening. The Plan for strengthening – the Road Map – is attached as Annex 3 to the Programme.

An Audit Authority, functionally independent from all actors in the management and control systems and complying with internationally accepted audit standards, was established in the State Audit Office.

The Audit Authority shall be responsible for verifying the effective and sound functioning of the management and control systems

The audit authority shall carry out audits of the management and control system(s), actions, transactions and annual accounts in line with internationally accepted auditing standards and in accordance with an audit strategy prepared on a tri-annual basis. The audit strategy shall be updated annually.

The audit authority shall prepare an annual audit activity report and an annual audit opinion drawn up in accordance with internationally accepted auditing standards.

At the end of the implementation of a programme, the audit authority shall prepare a final audit activity report and provide an audit opinion on the final statement of expenditures.

7.2 Monitoring arrangements

IPA monitoring committee

The European Commission and the beneficiary country shall set up an IPA monitoring committee no later than six months after the entry into force of the first financing agreement.

The IPA monitoring committee shall review the overall effectiveness, efficiency, quality, coherence, coordination and compliance of the implementation of all actions towards meeting their objectives. For this purpose, it shall, where relevant, base itself on the information provided by the Sectoral Monitoring Committees. It may make recommendations for corrective actions whenever needed.

The IPA monitoring committee shall be composed of representatives of the Commission, the NIPAC and other relevant national authorities and bodies of the IPA II beneficiary and, where relevant, international organisations, including international financial institutions and other stakeholders, such as civil society and private sector organisations.

A representative of the Commission and the NIPAC shall co-chair the IPA monitoring committee meetings. The IPA monitoring committee shall meet at least once a year. Ad hoc meetings may also be convened at the initiative of the Commission or of the IPA II beneficiary, in particular on a thematic basis.

Sectoral Monitoring Committee

Monitoring committee for Environment and Climate Action sector shall be set up by the IPA II beneficiary no later than six months after the entry into force of the first financing agreement related to the respective policy area or programme. The Monitoring Committee for environment and climate action sector shall review the effectiveness, efficiency, quality, coherence, coordination and compliance of the implementation of the actions in the programme and their consistency with the relevant sector strategies. It shall measure progress in relation to achieving the objectives of the actions and their expected outputs, results and impact by means of indicators related to a baseline situation, as well as progress with regard to financial execution. The Sectoral Monitoring Committee shall report to the IPA Monitoring Committee and may make proposals on any corrective action to ensure the achievement of the objectives of the actions and enhance the efficiency, effectiveness, impact and sustainability of the assistance provided.

The Sectoral Monitoring Committee shall be composed of representatives of relevant national authorities and bodies, other stakeholders such as economic, social and environmental partners and if relevant, international organisations, including international financial institutions and civil society. The European Commission will participate in the work of the committee.

Sectoral Monitoring Committees shall meet at least twice a year. Ad hoc meetings may also be convened.

7.3 Evaluation arrangements

The Head of the Operating Structure is responsible for ensuring that adequate evaluations of the operational programme are carried out. The evaluations shall be carried out by experts or bodies, internal or external, functionally independent from the management and control system.

Interim Evaluation

During the implementation of the programme, interim evaluations complementing the monitoring of the Multiannual Programme for the Sector Environment and Climate Action shall be carried out, in

particular where this monitoring reveals a significant departure from the goals initially set or where proposals are made for the revision of the programme. At any rate, evaluations should be planned to provide data on indicators agreed upon in the Multiannual Programme for the Sector Environment and Climate Action that cannot be obtained through the monitoring system. In addition, strategic evaluations or thematic evaluations can be carried out under the responsibility of the Department for EU - IPA Units within the Ministry of Environment and Physical Planning, as specific bodies within the operating structure. The results shall be sent to the ad-hoc Committee on Evaluations, to the Sectoral Monitoring Committee and to the Commission.

Evaluation Function

The Head of Department for EU together with the heads of the IPA Units within the Ministry of Environment and Physical Planning shall be responsible for ensuring that adequate evaluations of the Sectoral Operational Programme for the Sector Environment and Climate Action are carried out. The evaluations shall be carried out by experts or bodies, internal or external, functionally independent from the management and control system.

Evaluation Committee

The Sector Monitoring Committee should designate an ad-hoc committee to assist the operating structure in its evaluation activities. The committee members shall be experts in evaluation.

The assistance should take place at all stages of the evaluation (guidance, planning, implementation, communication of results). Relevant stakeholders shall be able to contribute as well.

In undertaking the evaluation tasks, the Sectoral Monitoring Committee, when necessary, shall establish an Evaluation Committee. Since committee members are experts in evaluation of Multiannual Programmes, they shall be engaged in two ways:

- by introducing framework contracts for carrying out interim evaluations of the Multiannual Programme by independent evaluators, covering the entire programming period or its major part, or
- by stipulating single contracts for specific evaluations to be carried out.

List of annexes

- Annex I: List of planning documents
- Annex II: Organisational chart of the Ministry of Environment and Physical Planning
- Annex III: Roadmap for strengthening institutional capacity

Annex I: List of planning documents

No.	Title of document	Institution which:		Approved/ valid date	Availability*			Update December 2012
		Developed	Approved		Paper	Electro nic	Internet	
1.	National Strategy for Sustainable Development and the Action Plan	SIDA MoEPP	Government of the former Yugoslav Republic of Macedonia	2010-2030	In preparation	Yes	Yes www.moep.gov.mk http://www.moep.gov.mk/default-en.asp?ItemID=CBB3AF354AB04A4291A87CEA7279857A	No changes
2.	Spatial Plan of the former Yugoslav Republic of Macedonia	Public Enterprise for Spatial and Urban Plans	Assembly of the former Yugoslav Republic of Macedonia	2004-2014	Yes	Yes	Yes http://www.coe.int/t/dg4/cultureheritage/heritage/cemat/compendium/SpatialPlanMacedonia.pdf	No changes
3.	Second National Environmental Action Plan NEAP II (2006 – 2012)	European Union MoEPP	Government of the former Yugoslav Republic of	2006 – 2012	Yes	Yes	Yes www.moep.gov.mk	No changes

No.	Title of document	Institution which:		Approved/ valid date	Availability*			Update December 2012
		Developed	Approved		Paper	Electro nic	Internet	
			Macedonia				http://www.moep.gov.mk/WBStorage/Files/Second%20NEAP,%20en,%20finalen%20dokument%20za%20pecatenje,juni%202007.pdf	
4.	National Strategy for Environmental Approximation	European Union MoEPP	MoEPP	2008	Yes	Yes	Yes www.moep.gov.mk http://www.moep.gov.mk/WBStorage/Files/National%20Strategy%20for%20Environmental%20Approximation.pdf	No changes
5.	National Environmental Investment Strategy	REC MoEPP	Government of the former Yugoslav Republic of Macedonia	2009-2013	Yes	Yes	Yes www.moep.gov.mk http://www.moep.gov.mk	No changes

No.	Title of document	Institution which:		Approved/ valid date	Availability*			Update December 2012
		Developed	Approved		Paper	Electro nic	Internet	
							epp.gov.mk/WBStorage/Files/National%20Environmental%20Investment%20Strategy.pdf	
6.	National Waste Management Strategy	RIKO Doael MoEPP	Government of the former Yugoslav Republic of Macedonia	2008-2020	Yes	Yes	Yes www.moep.gov.mk http://www.moep.gov.mk/WBStorage/Files/Waste%20Management%20Strategy%20of%20the%20RM%202008-2020.pdf	No changes
7.	National Waste Management Plan	RIKO Doael MoEPP	MoEPP	2009-2015	Yes	Yes	Yes www.moep.gov.mk http://www.moep.gov.mk/WBStorage/Files/NWMP_2009-2015%20of%	No changes

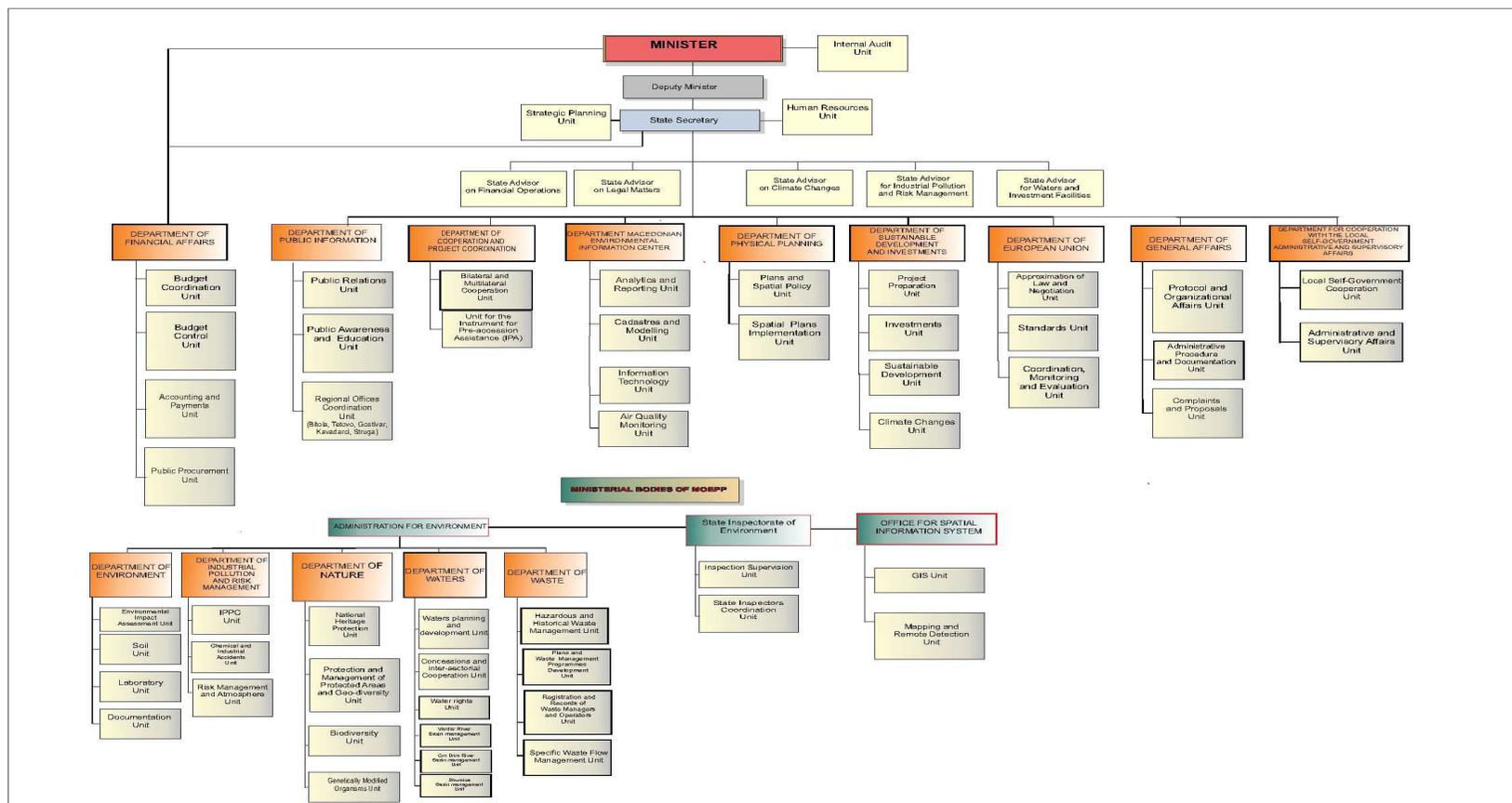
No.	Title of document	Institution which:		Approved/ valid date	Availability*			Update December 2012
		Developed	Approved		Paper	Electro nic	Internet	
							20RM_finaL.pdf	
8.	National Water Management Strategy	MoEPP Hydroengineering Slovenia	Assembly of the former Yugoslav Republic of Macedonia	2012-2042	No	YES	http://www.moep.gov.mk/WBStorage/Files/Nacionalna%20Strategija%20za%20Vodi%20SV%20br.122_2012.pdf	adopted
9.	Water Master Plan of the former Yugoslav Republic of Macedonia (1978) (pending adoption of a new Plan)	Ministry of Agriculture, Forestry and Water Management	Assembly of the former Yugoslav Republic of Macedonia					No changes, still pending adoption of a new plan
10.	Three-year Public Investments Programme (2011-2013)	Government of the former Yugoslav Republic of Macedonia	Government of the former Yugoslav Republic of Macedonia		Yes	Yes	Yes	No changes
11.	Local Action Plans on Environment (LEAP)	Each municipality is developing its own LEAP	Municipality					Usually all municipalities develop LEAP and update them according

No.	Title of document	Institution which:		Approved/ valid date	Availability*			Update December 2012
		Developed	Approved		Paper	Electro nic	Internet	
								to the law. As far as I know, all 84 municipalit ies have LEAP
12.	Programme for Packaging Waste Management	MoEPP		2011		Yes	/	
13.	Plan for Institutional Development of the National and Local Environmental Management Capacity	MoEPP		2009 – 2014		Yes	/	
14.	National Strategy for Clean Development Mechanism	MoEPP		2008-2012		Yes	<a href="http://www.mo
epp.gov.mk/W
BStorage/Files
/National%20
Strategy%20K
yoto%20Proto
col.pdf">http://www.mo epp.gov.mk/W BStorage/Files /National%20 Strategy%20K yoto%20Proto col.pdf	
15.	Plan for management of waste from electrical and electronic equipment with feasibility study	MoEPP ERICO, Slovenia		2011-2020		Yes	<a href="http://www.mo
epp.gov.mk/W
BStorage/Files
/">http://www.mo epp.gov.mk/W BStorage/Files /	

No.	Title of document	Institution which:		Approved/ valid date	Availability*			Update December 2012
		Developed	Approved		Paper	Electro nic	Internet	
16.	National Plan for Protection of the Ambient Air	MoEPP		2012-2018			http://airquality.moep.gov.mk/airquality/wp-content/uploads/2012/10/NP AAP-final.pdf	
Strategy for Energy Development of RoM until 2030	MoE	Government	2010-2030		Yes		http://www.economy.gov.mk/ministerstvo/sektori_vo_ministerstvo/sekto_r_za_energetika/3306.html	
Strategy for promotion of energy efficiency until 2020	MoE	Government	2010-2020		Yes		http://www.economy.gov.mk/ministerstvo/sektori_vo_ministerstvo/sekto_r_za_energetika/3306.html	
Strategy for utilization of RES until 2020	MoE	Government	2010-2020		Yes		file:///C:/Documents%20and%20Settings/elena.kolevska/My%20Documents/Downloads/Strategija_OIE_final_mk.	

No.	Title of document	Institution which:		Approved/ valid date	Availability*			Update December 2012
		Developed	Approved		Paper	Electro nic	Internet	
							pdf	
First National Energy Efficiency Action Plan	MoE	Government	2011-2018		Yes		http://www.economy.gov.mk/ministerstvo/sektori_vo_ministerstvo/sektor_za_energetika/3306.html	
Programme for implemen- tation of the Strategy for energy develop- ment for the period 2013- 2017	MoE	Government	2013-2017		Yes		http://www.economy.gov.mk/ministerstvo/sektori_vo_ministerstvo/sektor_za_energetika/3306.html	

Annex II: The organization chart of the Ministry of Environment and Physical Planning



Annex III. Strengthening capacities and capabilities of the Operational Structure for Sector Environment

ROAD MAP

	Function	Task	Measure	Resources	Deadline
1	Programmi ng				
1.1		Establishing sectoral priorities	Development of the Environmental Protection and Climate Change Strategy	IPA – TAIB 2009	October 2014
1.2		Development of long term investment project pipeline in waste sector	Development of Directive Specific Implementation Plan for Landfill Directive	IPA 2014	June 2017
1.3		Development of long term investment project pipeline for water sector	Development of Directive Specific Implementation Plans for Urban Waste Water Treatment Directive and Drinking Water Directive under project National Water Study	OPRD 20107- 2013	December 2016
1.4		Improving project prioritisation and financing	Development of Investment and Financing Plan or revision of National Strategy for Investment in Environment	IPA 2014	December 2017
1.5.1		Improving participation of the MoEPP sectoral units in project identification and priority setting	Strengthening Water Department of the MoEPP with two employees with engineering background in water	National budget	From January 2015
1.5.2			Strengthening Waste Management Departments with two employees with engineering background in waste management sector	National budget	From January 2015
1.6		Improving coordination inside the MoEPP	Organising meetings of the IPA Coordination Working Group		Each quarter
1.7.1		Improving coordination with donor community and other institutions	Establishment of the Sector Working Group for Environment and Climate (SWGEC)		September 2014
1.7.2			Organising meetings of the SWGEC		Two times per

					year, starting November 2014
1.8		Improving coordination with local level	Organising meetings under consultation body established within ZELS		Two times per year
1.6		Improving development of OIS and other project identification documentation	Increasing the number of people in the Unit for Programming and Monitoring of the Implementation IPA of the EU Department by one employee with technical background	National budget	From January 2015
1.7		Improving capabilities for project identification and programming	Organising trainings for project identification and programming for the main units responsible for programming and beneficiaries (some activities for Municipalities organised under Natural Waster Study project)	OPRD 2007-2013 and other TA projects	September – November 2014
2	Tendering				
2.1.1		Increasing efficiency in providing inputs for tendering documentation (e.g., Procurement Plan, Drafting tender/ call for proposals documentation, etc.) and tendering process (full time participation in evaluation, participation in site visits, providing clarifications for tenderers, etc.)	Increasing staff in the Unit for Coordination and Technical Implementation of the Instrument for Pre-accession Assistance by two employees with engineering background (one for water and one for waste management sector)	National budget	From January 2015
2.1.2			Providing training for the Unit for Coordination and Technical Implementation of the Instrument for Pre-accession Assistance	TA	October 2014
3	Contracting				
3.1		Improving quality of information when initiating and providing justification for contract modification when relevant	CFCD training on contracting requirements		February 2015
4	Implementation				

4.1		Increasing quality and efficiency of participation in projects implementation	Strengthening capacities and capabilities of the MoEPP as foreseen under items 1.5.1 and 1.5.2		
4.2		Improving capabilities for financing planning	Training of cost assessment and financing planning	TA	March 2015
5	Monitoring				
5.1		Increasing capacities for participating in monitoring activities in particular for on-the-spot checks	Strengthening capacities and capabilities of the MoEPP as foreseen under items 1.5.1 and 1.5.2 Strengthening capacity by establishing a separate Unit for Implementation of IPA Infrastructure Projects as unit responsible for project implementation. At least one responsible person allocated in the city where project activities will take place.	National budget	From January 2015
5.2		Increasing capacities for verification of the expenditures declared, and reviewing, checking and endorsing the invoices (10 days target), checking eligibility of expenditures	Increasing the number of people in the Unit for Programming and Monitoring of the Implementation Under the IPA of the EU Department by one employee with qualifications in economics or finances	National budget	From January 2015
5.3		Establishing and maintaining a system for monitoring physical progress of project implementation	Development of system for project monitoring, establishment of database, supply of IT equipment	TA	2015
5.4		Strengthening project monitoring in climate change area	Establishment of Climate Change Unit (3 employees currently working under project implemented by UNDP)	National budget	From January 2015
6	Evaluation	Strengthening beneficiary capacity in evaluation process	Organising meetings before evaluation with Evaluation Committee members by the Unit for Coordination and Technical Implementation of the IPA		Regular tasks

7	Audit				
7.1		Improving filing system and availability of documents for audit	Establishment of system for filing, searching and archiving documentation related to implementation of EU and other donor financed projects	TA	2015
7.2		Ensuring audits on the implementation of the IPA funded projects by the internal auditors appointed within the Ministry	Nomination of responsible personal from the MoEPP and provision of training for implementation of auditing functions		2015
8	Information System	Improving availability and quality of information	As foreseen under 5.3 & 7.1		

Summary of the capacity strengthening action

	Unit	Number of employees	Qualification
1	Unit for Coordination and Technical Implementation of the Instrument for Pre-accession Assistance, under the EU Department	2	Water sector specialist (engineer) Waste management sector specialist (engineer)
2	Unit for Programming and Monitoring of the Implementation of the Instrument for Pre-accession Assistance, under the EU Department	2	Project management specialist Cost assessment and financing specialist (economist, financier)
3	Water Department of the Administration for Environment under the MoEPP	2	Water and waste water sector specialists (engineer)
4	Waste Management Departments of the Administration for Environment under the MoEPP	2	Waste management sector specialist (engineer)
5	Climate Change Unit under the Department for Sustainable Development and Investment	3	Technologist and engineers
6	Unit for Implementation of IPA Infrastructure Projects under the MoEPP	7	Water and Waste Management sector specialist (engineer)
	TOTAL	17	

