

Republic of Macedonia

# National Environmental Investment Strategy 2009–2013

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## List of Abbreviations

<b>ADA</b>	Austrian Development Agency
<b>ADKOM</b>	Association of communal service providers
<b>CARDS</b>	Community Assistance for reconstruction, development and stabilization
<b>CBD</b>	Convention for Bio Diversity
<b>CDM</b>	Clean Development Mechanism
<b>CITES</b>	Convention for international Trade with Endangered Species
<b>CFCD</b>	Central Financing and Contracting Department
<b>DNA</b>	Designated National Authority
<b>EIB</b>	European Investment Bank
<b>ELV</b>	End of Life Vehicles
<b>EU</b>	European Union
<b>GEF</b>	Global Environmental Fund
<b>GDP</b>	Gross Domestic Product
<b>IAEA</b>	International Atomic Energy Agency
<b>IPA</b>	Instrument for Pre-accession Assistance
<b>IPPC</b>	Integrated Prevention and Pollution Control
<b>IFI</b>	International Financial Institutions
<b>KfW</b>	German Development Bank
<b>MAFWE</b>	Ministry for Agriculture, Forestry and Water Economy
<b>ME</b>	Ministry of Economy
<b>MEPP</b>	Ministry of Environment and Physical Planning
<b>MLSG</b>	Ministry of Local Self Government
<b>MTC</b>	Ministry of Transport and Communications
<b>MH</b>	Ministry of Health
<b>MF</b>	Ministry of Finance
<b>NEIS</b>	National Environmental Investment Strategy
<b>NWMP</b>	National Waste Management Plan
<b>PIP</b>	Public investment Programme
<b>PPP</b>	Public Private Partnership
<b>REC</b>	Regional Environmental Centre
<b>RES</b>	Renewable Energy Sources
<b>SEA</b>	Strategic Environmental Assessment
<b>SEA</b>	Secretariat for European Affairs
<b>ToR</b>	Terms of reference
<b>UNDP</b>	United Nations Development Programme
<b>UNFCCC</b>	United Nations Framework Climate Change Convention
<b>ZELS</b>	Union of Units of Local Self Government
<b>WEEE</b>	Waste Electric and Electronic Equipment

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## 1. Introduction

The Government of the Republic of Macedonia recognises environmental protection and sustainable development as priorities both in their own right and as an essential part of the process leading to eventual European Union (EU) accession. The role of the government involves not only setting the regulatory and policy framework for other actors, but also actively investing in certain areas where legislation and other policy instruments are not sufficient on their own. The present National Environmental Investment Strategy (NEIS) addresses those areas in which the government considers that active investment is needed. It does not address other legislative and policy aspects of environmental protection.

The NEIS defines the measures necessary to provide more intensive investment by the government. Non-investment measures are also defined as a prerequisite for the smooth implementation of the NEIS, in relation to institutional strengthening, capacity building (especially at the local level) and project preparation. Legal transposition and related investments are not included in this NEIS.

The NEIS is based on the directions and recommendations given in existing environmental strategic documents, such as the National Environmental Action Plan (NEAP) and the National Strategy for Environmental Approximation (NSEA). In keeping with these strategies, the following issues were given particular attention during the preparation of the NEIS:

- The ongoing process of harmonisation with the environmental acquis, based on the National Programme for Approximation with the EU Acquis.
- The ongoing decentralisation process — the delegation of new competencies to local self-government units, including competencies in the environmental sector.
- The achievement of sustainable economic and social development goals through increased cooperation and the implementation of integrated management in the environmental sector.

The areas in which by far the greatest investments are needed in order to achieve compliance with EU (environmental) legislation are integrated pollution prevention and control, and water, wastewater and waste management. The government commits most public resources — at least 88 percent of the available funds — to the water and waste sectors through the competent line ministries. Sources of financing are the central budget, local budgets, the Instrument for Pre-accession Assistance (IPA) and other international financial institutions (IFIs).

The industrial and energy sectors will be able to address pollution control measures using a loan facility to be funded by an appropriate IFI and with a government guarantee. Another possible source of financing for this sector is IPA Component V, which covers integrated pollution prevention and control (IPPC) permits in the agribusiness sector.

The other sectors covered by this NEIS are industrial hotspots, air quality management, climate protection and nature protection. The remaining 12 percent of

the total allocated financial resources in the investment package presented in the NEIS is committed to these sectors.

The NEIS covers the period 2009 to 2013 and comprises three pillars:

1. The definition of an envelope of funds from national and international sources.
2. The allocation of these funds to clearly defined and agreed priorities.
3. Institutional strengthening and changes to ensure the efficient and effective implementation of the NEIS.

The first pillar represents the total value of planned funds for the implementation of the NEIS, that is, EUR 205 million (at 2008 prices and exchange rates), comprising:

- Central government funds<sup>1</sup> (46.9 percent of the total)
- EU funds (the IPA instrument, providing 25 percent of the total)
- Bilateral donors (7.6 percent)
- Own contributions<sup>2</sup> (20.5 percent).

The amount expected to be disbursed within the timeframe of the NEIS (i.e. up to the end of 2013) is EUR 155 million, with the remainder (EUR 50 million) being disbursed in 2014, 2015 and 2016. This level of disbursement corresponds to approximately 3 percent<sup>3</sup> of gross fixed capital formation, which compares favourably with levels of public environmental investment expenditure recorded by other similar countries at a comparable period (e.g. the Czech Republic, Hungary, Poland and Slovakia).<sup>4</sup>

The second pillar of the NEIS involves the allocation of funds to sectors and sub-sectors, together with a comprehensive approach for the selection of projects in each sector.

Municipalities/beneficiaries will apply and compete for funds through a published call for proposals/open call, and the selection will be made in accordance with the existing regulations/criteria and methodologies issued by the government.

The largest share of funds in the next period will be allocated based on a limited competition between pre-selected priority projects: this applies for the period 2009-2013 to the areas of regional waste management and industrial hotspots, while after 2013 this will apply to water supply and sewerage projects. The limited competition will be implemented with defined technical assistance for project preparation and a system of benchmarks and selection criteria.

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<sup>1</sup> This category includes national co-financing, as well as the financing provided by IFIs, where the central government will service the debt directly (on behalf of the final beneficiaries).

<sup>2</sup> Own contributions are predominantly financed by user charges, although the immediate source of funds will be in the form of loans (e.g. provided by IFIs). The capital for own contributions may also include funding from local self-governments (LSGs) and public-private partnerships (PPPs).

<sup>3</sup> Based on a figure of MKD 56,485 million gross fixed capital formation in 2006, from [http://www.stat.gov.mk/english/statistiki\\_eng.asp?ss=09.02&rbs=1](http://www.stat.gov.mk/english/statistiki_eng.asp?ss=09.02&rbs=1)

<sup>4</sup> See Table 3 in <http://www.oecd.org/dataoecd/37/45/38230860.pdf>

Specifically named projects form the next largest beneficiary of funds, based on projects already defined in previous documents:

- Prilep sewerage and wastewater treatment
- Skopje sewerage and wastewater treatment, stage 1
- National systems for the management of hazardous and clinical waste
- Air quality management
- Nature protection priority projects.

In the following areas, grant schemes will be established based on competitive calls for proposals:

- Water supply and wastewater collection and treatment
- Pilot recycling and recovery projects in the area of municipal solid waste
- Nature protection through the implementation of sustainable agricultural practices or sustainable tourism activities (primarily the preparation of IPA applications to be funded under Component V — rural development; and Component II — cross-border cooperation)
- Baseline studies for Clean Development Mechanism (CDM) projects.

In addition to these grant schemes, there is a specific investment programme (soft loan facility) envisaged for large IPPC investments. The definition and implementation of adequate tax and custom relief measures is also recommended (following the experience of new EU member states) as a way to stimulate new investments in the industrial sector.

The third pillar of the NEIS describes the institutional strengthening and changes required in order to make the NEIS a reality. After careful consideration of a number of options (a fund, an agency for environmental investment, and the further strengthening of the sectors in the line ministries responsible for development and investments), the main proposal, as a first step, is to focus on further staffing<sup>5</sup> and on building the capacity of existing departments in the respective line ministries for project cycle management. The Ministry for Transport and Communications (MTC) will establish a new department as soon as possible for the implementation of investments in water supply and sanitation (sewerage) projects.

As an effective short-term mechanism to address the present lack of coordination and to streamline investment activities, it is suggested to establish an inter-ministerial task force.

In the medium and long term, it is recommended to transfer part of the competencies for the implementation of environmental investments to a governmental body in the form of an agency. The establishment of this agency will depend on, and will be in accordance with, the ability to provide additional financial resources for its functioning. The agency will be responsible for the coordination, administration and monitoring of project implementation in the sectors covered by this NEIS.

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<sup>5</sup> The creation of new positions in accordance with the National Programme for Approximation with the EU Acquis, or the transfer of existing staff and changes in the systematisation of workplaces in public administration bodies.

However, individual funding institutions (line ministries, the Bureau for Balanced Regional Development, the Water Fund, the EU under the IPA programme, bilateral donors and IFIs) are to retain their key responsibility for the programming, selection and final approval of projects (pending commitments), as well as audit and control functions.

This governmental body is believed to be, and recommended as, the best long-term institutional option, particularly bearing in mind the expected move towards the extended decentralised implementation of the IPA, but also in view of the need to prepare for the forthcoming Structural and Cohesion Funds. The agency will provide project management expertise, allowing for the more efficient use of these funds in the (near) future.

In order to provide continuous technical assistance in project preparation (especially for the implementation of the necessary reforms that are a prerequisite for financing), as well as during the implementation of investment projects, the creation and training of a quality management team is strongly recommended. Mobilisation and training will require support from a bilateral donor (or the EU).







## 2. Financing

The available national funds reflect an increase from historical levels in line with the expected 6 percent real growth in GDP.<sup>6</sup>

The IPA funding reflects expectations but has not yet been finalised at EU level. It encompasses IPA Component III for water and waste projects, but also Component II (for cross-border nature protection projects) and the preparation/implementation of projects related to integrated pollution prevention and control (IPPC) in the agrobusiness sector for financing under Component V. In the total financial envelope, sources from Component V are not included, as the available amount is not known.

Component I of the IPA will be used as technical assistance for financing preparatory measures for hazardous waste management, a sub-sector that is considered as a high priority. Funds from this component will be used for training staff at the Ministry of Environment and Physical Planning (MEPP) in the area of air management and IPPC. Further use of IPA Component I will be dedicated to the preparation of sub-laws and other legal documents in the water management sector. Nature protection projects will also be covered under IPA Component I.

There is a progressive reduction in bilateral grants by the EU and donor countries, reflecting the increase in EU multilateral funding.

The total funds required in order to achieve compliance with the relevant directives in the sectors in question exceed EUR 1 billion, while the present financing envelope represents somewhat less than 20 percent of this amount. Future Cohesion and Structural Funds will play a major role in filling this gap, which requires that the absorption capacities for EU funds be addressed at the pre-accession stage via comprehensive institutional measures and economic instruments.

The financial envelope (structure of financing) presented in this NEIS is based on the Public Investment Programme 2008–2010, the Public Debt Strategy and the Fiscal Strategy. The NEIS is also in line with existing policies/programmes in the environmental sector implemented by relevant line ministries, namely the Ministry of Environment and Physical Planning, the Ministry of Local Self-Government (Bureau for Balanced Regional Development), the Ministry of Agriculture, Forestry and Water Economy (the Water Fund), and the Ministry of the Economy.

Measures for institutional strengthening are also part of this NEIS and are separated from funds for financing capital investments. Investments for institutional strengthening are provided within the framework of the financial package presented in the NEIS.

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<sup>6</sup> This reflects the EUR 49 million in funds provided directly from the state budget (i.e. excluding any sector-specific IFI loans).

**Table 1: Overall sources of funding — commitments**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution <sup>7</sup>	Total
	Central budget <sup>8</sup>	IPA	Other donors (grants)			
2009	16.87	2.85	2.35	22.07	3.63	<b>25.70</b>
2010	26.41	10.00	1.65	38.06	3.42	<b>41.48</b>
2011	29.82	12.72	3.72	46.26	10.32	<b>56.55</b>
2012	13.71	13.08	4.32	31.11	11.98	<b>43.09</b>
2013	9.26	12.40	3.66	25.32	12.83	<b>38.15</b>
2014 and after	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>96.07</b>	<b>51.05</b>	<b>15.70</b>	<b>162.82</b>	<b>42.18</b>	<b>205.00</b>
Share of total	46.86%	24.9%	7.65%	79.42%	20.57%	100.00%

Note: The decrease between 2012 and 2013 reflects the aggregated result of the expected cash flow needs of projects to be financed under the NEIS and does not reflect any long-term trend.

**Table 2: Overall sources of funding — disbursements**

Million euro (2008 prices)	Grants			Subtotal	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009	7.95	0.85	0.65	9.45	1.02	<b>10.47</b>
2010	16.93	0.95	2.35	20.23	2.92	<b>23.15</b>
2011	19.88	6.76	3.32	29.96	9.25	<b>39.21</b>
2012	17.18	11.67	5.32	34.17	7.56	<b>41.73</b>
2013	16.37	9.28	4.06	29.71	9.13	<b>38.84</b>
2014 and after	17.76	21.54		39.3	12.3	<b>51.6</b>
<b>Total</b>	<b>96.07</b>	<b>51.05</b>	<b>15.70</b>	<b>162.82</b>	<b>42.18</b>	<b>205.00</b>
Share of total	46.86%	24.90%	7.65%	79.42%	20.57%	100.00%

The following two tables show the share of these amounts that are directly linked to IPA project implementation (all Component III, with the exception of nature protection, Component II).

<sup>7</sup> Own contribution includes the KfW loan for water supply in 10 municipalities and the probable borrowing for the Skopje wastewater treatment plant (WWTP), to be repaid through fees collected from costumers, thus the repayment rests with the municipalities.

<sup>8</sup> Besides own resources, the national budget includes a loan from the European Investment Bank (EIB) to be repaid by the government.

**Table 3: IPA financing of the NEIS — commitments**

Million euro (2008 prices)	Grants			Subtotal	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009	0.87	2.85	0.00	3.72	0.00	<b>3.72</b>
2010	4.9	10.00	0.00	14.9	0.38	<b>15.28</b>
2011	9.91	12.74	0.00	22.65	1.32	<b>23.97</b>
2012	8.66	13.06	0.00	21.72	1.05	<b>22.77</b>
2013	4.33	12.40	0.00	16.73	1.30	<b>18.03</b>
2014 and after	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>28.67</b>	<b>51.05</b>	<b>0.00</b>	<b>79.72</b>	<b>4.05</b>	<b>83.77</b>
Share of total	34.20%	61.00%	0.00%	95.10%	4.83%	100.00%

**Table 4: IPA financing of the NEIS – disbursements**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009	0.2	0.85	-	1.05	-	<b>1.05</b>
2010	1.54	0.94	-	2.48	-	<b>2.48</b>
2011	7.75	6.76	-	14.51	0.05	<b>14.56</b>
2012	8.54	11.67	-	20.21	0.62	<b>20.83</b>
2013	3.46	9.29	-	12.75	0.94	<b>13.69</b>
2014 and after	7.18	21.54	-	28.72	2.44	<b>31.16</b>
<b>Total</b>	<b>28.67</b>	<b>51.05</b>	<b>-</b>	<b>79.72</b>	<b>4.05</b>	<b>83.77</b>
Share of total	34.20%	61.00%	0.00%	95.10%	4.83%	100.00%

Own contributions could also include the local budget and/or capital investments through public-private partnerships. Borrowing will certainly lead to the increasing of tariffs. Feasibility studies (prepared with support provided by the quality management team) will present the best (lowest-cost) technical solution and provide recommendations for improving the efficiency of the operator (public utility), so reducing total costs and lessening the need to raise tariffs, at least in the first years of operation of the new systems. In order to achieve the sustainability of the new infrastructure, which will require cost recovery and the increasing of tariffs, the key factor is to implement phased construction. Nevertheless, the most important issue to be solved remains the reform of the communal sector. Public campaigns are the best means of influencing citizens' willingness to pay. On the other hand, penalties for households that do not pay for services should be better enforced. Another option for adjusting tariffs to the law of supply and demand is the commercialisation of public utilities, which introduces fresh private capital and the stimulus of competition.

In the overall financial envelope, the soft loan facility for industry (IPPC programme) is not included, nor is co-financing from the private sector; this programme stipulates only sources that will be provided by the government as loan guarantees. World Bank loans for the communal sector are not included in the NEIS either, as the investments typically focus on the construction of smaller infrastructure and the supply of equipment, thus do not have a significant influence on the approximation process.

The following two tables show the sectoral allocation of funds from various financial resources, including IPA-funded components.

**Table 5: Sectoral allocation of funds for the NEIS as a whole\* (in million euro)**

Sector	Share	Amount*	Central budget	IPA	Other donor	Own contribution
Water supply and wastewater	56.3%	115.44	72.86	6.95	-	33.63
<i>Water supply and sewerage</i>	29.6%	60.63	52.00	-	-	8.63
<i>Prilep sewerage and WWTP</i>	9.5%	19.24	12.30	6.94	-	-
<i>Skopje collector and WWTP - Stage 1</i>	17.2%	35.56	10.56	-	-	25.00
Waste management, of which	31.81%	65.22	18.32	38.09	3.96	4.85
<i>National waste management projects</i>	4.0%	8.02	1.68	5.03	0.85	0.47
<i>Integrated regional waste management</i>	24.0%	49.16	11.02	33.06	1.50	3.58
<i>Pilot projects</i>	4.0%	8.03	5.62	-	1.61	0.80
Industrial hotspots	2.9%	6.02	1.20	-	4.82	-
Integrated pollution prevention and control	2.3%	4.69	0.94	-	3.75	-
Air quality	2.0%	4.02	1.00	3.01	-	-
Climate change	0.3%	0.60	0.30	-	-	0.30
Nature protection	3.8%	7.67	2.67	3.00	2.00	-
Agency funding	0.65%	1.35	0.60	-	0.75	-
<b>Total</b>	<b>100%</b>	<b>205.00</b>	<b>96.07</b>	<b>51.05</b>	<b>15.70</b>	<b>42.18</b>

\* 2008 prices and exchange rates

**Table 6: Allocation of funds for IPA components (in million euro)**

Year	IPA I	IPA II	IPA III
2009	0.85	2.0	6.1
2010	3.01	1.0	5.33
2011			9.69
2012			10.68
2013			12.39
Total	3.86	3.00	44.19

**Table 7: Sectoral allocation of funds for the IPA component of the NEIS (in million euro)**

Sector	Share	Amount	Central budget	IPA	Other donor	Own contribution
Water supply and wastewater	23.4%	19.25	12.30	6.95	-	-
<i>Prilep sewerage and WWTP</i>	23.4%	19.25	12.30	6.95	-	-
Waste management, of which	66.88%	54.83	12.70	38.09	-	4.05
<i>National waste management projects</i>	8.7%	7.17	1.68	5.03	-	0.47
<i>Integrated regional waste management</i>	58.1%	47.66	11.02	33.06	-	3.58
Air quality	4.9%	4.02	1.00	3.01	-	-
Nature protection	4.9%	4.00	2.67	3.00	-	-
<b>Total</b>	<b>100%</b>	<b>82.10</b>	<b>28.67</b>	<b>51.05</b>	<b>-</b>	<b>4.05</b>

The environment sector is essential to the successful implementation of IPA Component III, especially in light of the (EU) requirement for a balance between transport and environment in the use of IPA regional development funds. Adequate central government co-financing (a commitment of around EUR 26 million and disbursement of around EUR 19 million up to the end of 2013) is a prerequisite for this success, if Macedonia is not to run the risk of losing its IPA allocation.

The funding of the MTC's largest water supply and sewerage programme, worth EUR 50 million, is to be provided by an EIB loan to the central government (ongoing process of negotiation) with a national co-financing of EUR 50 million, making a total of EUR 100 million. Much of the debt servicing for this loan will be met directly by the central government (especially for rural beneficiaries, see Table 5, central budget column), but some (the NEIS assumes 10 percent or EUR 5 million) will be repaid by the municipalities (Table 5, own contribution column).

In addition, municipalities will be repaying through charges collected from citizens the EUR 8.63 million loan provided by Kreditanstalt fuer Wiederaufbau (KfW) for the rehabilitation of water supply networks in eight urban municipalities (Table 5, own contribution column). From the central budget, the national co-financing of EUR 2 million is included in the financial envelope for these projects.

Another option for providing additional financial resources is the use of public-private partnerships (PPP). This model could be used, and is realistic, in the waste and wastewater treatment sector. The combining of IPA and PPP may be complicated: each of these instruments is sufficiently demanding in its own right and their combination is extremely challenging, even for highly developed Western European countries.

This overall envelope is flexible; it does not exclude the possibility of additional finance from other sources. It will be a great challenge to increase co-financing from the central budget and local budgets (through line ministries, local communities and the Bureau for Balanced Regional Development) that can support the implementation of any additional activities or projects.

Specific requirements for the planning, preparation and implementation of investments in individual sectors are as follows:

- The main (basic) requirement for all activities financed under the NEIS is that the financial sustainability of the operations should be demonstrated.
- Reforms in the communal sector (water and waste) are the main prerequisite for the effectiveness and sustainability of investments.
- The NEIS includes projects in the nature protection sector, where the final beneficiaries (management bodies) must be established in a manner that provides for their sustainable operation (without resorting to management practices that damage the very resources that the parks are intended to preserve and enhance).
- In the case of air quality monitoring, the government is committed to financing the operation of both new and existing equipment from central funds through individual programmes of the MEPP.
- According to the law, the private sector is ultimately responsible for financing measures for harmonisation with operational plans for integrated pollution prevention and control. Thus the private sector has no access to grant funds, which is also in accordance with the State Aid Law. In order to stimulate investments in the industrial sector and to utilise the benefits of the credit line (a soft loan facility provided by the government), it is also recommended to anticipate and implement adequate tax and custom relief measures for subjects investing in the environment.







## 3. Sectoral allocations and approaches

### 3.1 Introduction

The prioritisation of projects is an essential precondition for the cost-effective use of public funds, for at least three reasons:

- Priority projects should achieve the greatest benefit at the lowest cost and should address the most urgent needs.
- The preparation of large environmental investment projects is a demanding and costly process that can only start if financial resources are provided. Implementing large capital investments will contribute to strengthening absorption capacities for EU funds, and will prevent funds from being wasted in the preparation of non-priority/small projects, the implementation of which has no significant effect on the environment or on harmonisation with EU standards.
- Setting priorities means finishing what is started and focusing resources. This approach delivers greater benefits than a thinly spread, scattered, stop-go approach.

This NEIS employs three approaches to the prioritisation of projects, according to the existing legislation that is fully harmonised with the EU acquis.

The first approach is that of limited competition between pre-selected priority projects. This approach involves the pre-selection of a number of project ideas<sup>9</sup> as priorities: the final decision as to which projects are financed first is based on progress made in their preparation, measured against a set of well-defined benchmarks. These benchmarks (such as the achievement of a certain fee collection rate by a municipal enterprise) are based on reforms to be carried out in the communal sector. The final decision as to which project (municipality) will receive financial support will depend on the maturity of the project for financing. This approach is to be implemented in the waste and water management sector. Nevertheless, the second and third approaches (described below) will apply to the water sector in the period 2009 to 2013.

The second approach is the selection of nationally important projects that must be implemented but where competition is not appropriate. These projects are identified in the NEIS based on previous strategic documents and projects in the following areas:

- Prilep sewerage and wastewater treatment.
- Skopje sewerage and wastewater treatment, stage 1.
- National systems for the management of hazardous and clinical waste.
- The completion of the air quality monitoring network.
- The establishment of two new national parks (Jablanica and Jakupica) and a major project to demonstrate the sustainable use of a valuable habitat in Osogovo.

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<sup>9</sup> A "project idea" requires no pre-existing feasibility study or design documentation; it represents merely the intention to undertake a broadly defined type of investment in a given locality.

The final approach is based on periodic calls for proposals, in which clear selection criteria are set out and published in advance and applicants compete for funds. Those projects that best meet the criteria will receive funding.

This approach is to be used in water supply and sanitation projects, in pilot waste recovery and recycling projects, in the preparation of nature protection projects (mainly IPA applications), for support to CDM baseline studies/project documentation and for the preparation of projects financed through the credit facility for IPPC installations.

### **3.2 Water supply and wastewater collection and treatment**

The NEIS is intended to contribute to the implementation of the following directives:

- Water Framework Directive (2000/60/EC)
- Urban Waste Water Treatment Directive (91/271/EEC)
- Drinking Water Directive (98/83/EC)
- Sewage Sludge Directive (86/278/EEC)

The total capital cost of the implementation of these directives is estimated at EUR 724 million (National Strategy for Environmental Approximation, 2007), with slightly more than half of this on wastewater and the remainder on drinking water. In the NEIS, EUR 113.44 million are allocated for water supply, sewerage and wastewater treatment, including the first stage of the project to equip Skopje with modern wastewater treatment in the period 2009 to 2013.

It will be a major challenge to establish an integrated water management approach, overcoming barriers resulting from inherited institutional disparities. Activities will mostly comprise the adoption of approximated laws and the transfer of competencies to the MEPP in accordance with the new Water Law.

The National Water Strategy, the Water Master Plan and the respective river basin management plans must be put in place in the forthcoming period as an important prerequisite for the necessary planning and further reform of existing institutions at the national, regional and local level, as well as for the building of new institutions (e.g. river basin management bodies). The IPA institutional strengthening component will be used to foster this process. Due to the complexity of the water management sector, other funds (from bilateral donors, twinning) should be provided in addition to the IPA.

The following types of investment are foreseen in the water sector:

- Financed by a loan from KfW and EIB for
  - water supply (rehabilitation/extension and new water supply systems)
  - wastewater collection and treatment
- Financed by a loan from the World Bank
  - project for the improvement of communal services<sup>10</sup>
- Financed by IPA Component III
  - wastewater collection and treatment project, Prilep
- Financed by a loan (source of finance will be additionally defined)
  - water supply, wastewater collection and treatment project, Skopje, stage 1<sup>11</sup>

Water supply (rehabilitation in urban areas and the extension of existing systems or the establishment of new systems in rural and remote areas) is the main priority in the period 2009 to 2013. Two loan facilities are made available for local beneficiaries for this purpose:

- Kreditanstalt fuer Wiederaufbau (KfW)
- The European Investment Bank (EIB) (loans for water supply/wastewater projects in municipalities)

The KfW loan will be given to municipalities that qualify by meeting set targets. EUR 8.63 million will be available for eight municipalities (with EUR 2 million national co-financing). The municipalities of Gostivar, Tetovo, Kavadarci, Negotino, Bitola, Kocani, Gevgelija and Radovis will start the implementation only if all the bank's requirements are fulfilled. This approach is very similar to the previously described process of limited competition. Experience gained during this project will help to build capacities at national level for project preparation (and to implement reforms in public utilities) so that reliance on costly foreign consultants can progressively be reduced.

An EIB loan of EUR 50 million for water supply and wastewater treatment in rural and remote areas is also part of the envelope. Project selection will be based on well-defined prioritisation criteria, including quality management during the implementation phase. Further details regarding quality management are presented in the last chapter of this NEIS.

The allocation and disbursement of funds for the implementation of these programmes are presented in the tables below. As the conditions and dynamics of the utilisation of the loans are still unknown, all the numbers in the table are indicative.

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<sup>10</sup> A World Bank loan of EUR 25 million will be used for financing equipment and the reconstruction of communal infrastructure (water supply network, sewerage network, solid waste, street lighting, street and park cleaning), and the degree of harmonisation with EU environmental directives cannot be precisely defined. It is for this reason that these investments are planned but not included in the financial scenario.

<sup>11</sup> This project is included in the financial scenario of the NEIS, although its implementation depends on the approach to be taken with the next Strategy for Public Debt in the period after 2010.

**Table 8: Water supply and sewerage — allocation (in million euro)**

Million euro (2008 prices)	Grants					KfW loan	Total
	Central budget	IPA	EIB loan	Subtotal grants			
2009	1.00		15.00	16.00		3.63	<b>19.63</b>
2010	1.00		20.00	21.00		3.00	<b>24.00</b>
2011	-		15.00	15.00		2.00	<b>17.00</b>
2012	-			-			
2013	-			-			
2014 and after	-	-	-	-			
<b>Total</b>	<b>2.00</b>	<b>-</b>	<b>50.00</b>	<b>52.00</b>		<b>8.63</b>	<b>60.63</b>
Share of total	3.30%	0.00%	82.50%	85.80%		14.20%	100.00%

**Table 9: Water supply and sewerage — disbursement (in million euro)**

Million euro (2008 prices)	Grants					KfW loan	Total
	Central budget*	IPA	EIB loan	Subtotal grants			
2009	1.00		5.50	6.50		1.02	<b>7.52</b>
2010	1.00		9.00	10.00		2.89	<b>12.89</b>
2011	-		9.00	9.00		4.00	<b>13.00</b>
2012	-		9.00	9.00		0.72	<b>9.72</b>
2013	-		9.00	9.00			<b>9.00</b>
2014 and after	-	-	8.50	8.50			<b>8.5</b>
<b>Total</b>	<b>2.00</b>	<b>-</b>	<b>50.00</b>	<b>52.00</b>		<b>8.63</b>	<b>60.63</b>
Share of total	3.30%	0.00%	82.50%	85.80%		14.20%	100.00%

The criteria for project selection should include technical and/or environmental issues, and the administrative and financial maturity of the beneficiary municipalities. An indicative scoring system for the prioritisation of water supply projects is set out in the box below.

## Box 1: Indicative criteria for the prioritisation of water supply project ideas

### **Rehabilitation of water supply**

#### *Technical and environmental criteria:*

- Size of the population served by the project (weight 20%)
- Extent of water losses (weight 20%)
- Drinking-water quality (weight 10%)
- Extent of water deficits (weight 10%)

#### *Administrative and financial criteria:*

- Fee collection rate — the proportion of invoices actually paid within a given time limit (e.g. six months) (weight 10%)
- Financial strength of the municipality — defined for municipalities that have entered the second phase of fiscal decentralisation (condition for borrowing), based on the indicator “per capita surplus of the current operating budget in 2007” (weight 30%)

### **New water supply infrastructure**

#### *Technical and environmental criteria:*

- Size of the population served by the project (weight 40%)

#### *Administrative and financial criteria:*

- Financial strength of municipality (weight 40%)
- Council decision to assign an operator (weight 20%)

In the wastewater treatment area, there are a number of ongoing projects. Macedonia is committed to:

- Co-financing and implementing the Prilep IPA project for wastewater collection and treatment (see table below).
- Complementing bilateral funds for the Gevgelija wastewater treatment plant (WWTP) (Greece, possible grant from Switzerland) and Berovo WWTP (grant from Switzerland).

The following table shows the disbursement of funds for the Prilep project financed by IPA Component III.

**Table 10: Prilep wastewater collection and treatment project — disbursements (in million euro)**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009		850,000	-	-	-	<b>850,000</b>
2010	1,248,750	665,370	-	-	-	<b>1,914,120</b>
2011	6,150,000	3,045,600	-	-	-	<b>9,195,600</b>
2012	4,901,250	2,380,230	-	-	-	<b>7,281,480</b>
2013	-	-	-	-	-	-
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>12,300,000</b>	<b>6,941,200</b>	-	-	-	<b>19,241,200</b>
Share of total	64.4%	35.6%	0.0%		0.0%	100.0%

In the next period, financial resources should be provided for the following priority projects:

- Wastewater collection and treatment project, Skopje, stage 1.
- Wastewater treatment in Strumica, Veles and Stip (started with the Municipal Environmental Action Plans [MEAP] programme, financed by the European Bank for Reconstruction and Development (EBRD) in accordance with the Law on Public Debt, signed on September 5, 2001). These projects are not included in the overall financial scenario of the NEIS due to their uncertain/unclear status. However, they will be reconsidered for financing from other sources.

Concerning Skopje, a feasibility study for a major wastewater (and water supply rehabilitation) project is under way as a project of unique national and cross-border environmental importance. Owing to its extraordinary size, implementation in stages is envisaged for the period 2009 to 2013 and beyond. The first stage of the project would enable the mechanical treatment of wastewater and will provide for the necessary land purchase, the construction of wastewater collectors, the construction works for the wastewater treatment plant, and a limited amount of mechanical and electrical equipment. The proposed financing for the project is a combination of central government funds, the local budget of the city of Skopje, and a loan from an IFI. Public-private partnership (PPP) is considered as an option for co-financing only in the longer term, due to the lack of experience of stakeholders in contracting in this area. In the table below, “own contribution” represents borrowing by local public entities (repaid by user charges) and contributions from local budgets.

**Table 11:** Skopje wastewater collection and treatment project, stage 1 — disbursements (in million euro)

Million euro (2008 prices)	Grants					Own contribution	Total
	Central budget	IPA	IFI's	Subtotal grants			
2009	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-
2011	2.00	-	2.00	4.00		0.87	<b>4.87</b>
2012	1.77	-	8.00	9.77		0.89	<b>10.66</b>
2013	1.69	-	9.00	10.69		0.87	<b>11.56</b>
2014 and after	1.60	-	6.00	7.60		0.87	<b>8.47</b>
<b>Total</b>	<b>7.06</b>	<b>-</b>	<b>25.00</b>	<b>32.06</b>		<b>3.5</b>	<b>35.30</b>
Share of total	37.7%	0.0%	0.0%	37.7%		62.3%	100.0%

The wastewater collection and treatment project in Skopje is part of the Project Investment Programme (PIP) 2009 to 2011, as one of the highest priorities. At the same time, as an unusually large project, it will lead to major disturbances in the fiscal strategy due to the sizeable financial resources needed for its implementation. On the other hand, the city of Skopje, the largest city in Macedonia with a large number of industrial capacities, causes a high level of pollution of surface water. In this NEIS, according to the applied environmental and financial criteria, Skopje is ranked first on the priority list of projects. The implementation of this project is envisaged to start in 2011, which leaves room for the government to include this project in the future financial scenario, as the strategy for public debt is valid until 2010.

**Box 2:** Indicative criteria for the prioritisation of wastewater collection and treatment project ideas

*Technical and environmental criteria:*

- Size of the population served by the project (weight 20%)
- Degradation of river quality as a result of untreated discharges (weight 15%)
- Reduction in pollution load assuming 75 percent treatment efficiency (weight 10%)
- Sensitivity — freshwater bodies that are endangered (according to present surface water quality measurements) or that may become eutrophic in the near future if protective action is not taken, as well as waters intended for the abstraction of drinking water, for bathing, and special protected areas (weight 15%)

*Administrative and financial criteria*

- Fee collection rate (weight 10%)
- Financial strength of the municipality (weight 30%)

A major challenge during project implementation will be to address the need to raise tariffs as well as to improve the efficiency of the service provider. Affordability and willingness to pay are restrictive factors in relation to sustainability and the implementation of reforms in the public utilities.

Reforms in the communal sector will define the further steps to be implemented at national and local level in order to resolve permanent operational problems. Implementation of the reforms is the main prerequisite for the sustainable operation of the infrastructure that will be financed in the next period.

The increasing of tariffs as a result of investments in new infrastructure will be carried out in accordance with the tariff structure provided in the feasibility studies. Calculations always include the social element in accordance with both the economic growth rate of GDP and the maximum allowed price (WHO standard), which is 4 percent of average disposable income per household in municipalities.

Within the World Bank project for the improvement of communal services, in addition to reforms, EUR 25 million will be provided for municipalities that meet the bank's requirements/benchmarks in relation to the process of reforms. These financial resources will be used for communal activities — that is, for water supply systems, sewerage systems, waste systems, street lighting, the cleaning of parks and streets etc. The degree of harmonisation with EU environmental directives cannot be precisely defined, as the allocation of funds is still unknown. Also, there is no definition of which actions will be financed in the waste sector, or the extent to which they will comply with the implementation of the Waste Framework Directive, the Landfill Directive and the Packaging Waste Directive. The construction of collection (sewerage) systems without addressing solutions for adequate treatment (i.e. the construction of a WWTP) has no positive environmental impact and is not in accordance with the provisions stipulated in the Law on Water Supply and Wastewater Collection and Treatment or in the Law on Water. As soon as the World Bank allocates funds for the implementation of certain projects, the necessary adjustments will be made within the framework of this NEIS.



### 3.3 Waste

The NEIS establishes investment priorities, the ultimate goal of which is primarily the implementation of the following directives:

- Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste
- Landfill Directive (99/31/EC)
- Hazardous Waste Directive (91/689/EEC as amended by 94/31/EEC)
- Directive 94/62/EC of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste

The total capital cost of the implementation of these directives is estimated at EUR 360 million (National Strategy for Environmental Approximation, 2007). In the NEIS, EUR 65.2 million is allocated for waste management projects in the period 2009 to 2013. In addition to this amount, EUR 6.02 million is reserved for the remediation of the hotspot in Veles.

With the further approximation of secondary legislation in this complex sector, most of the overlaps and gaps in the regulations must be solved or clarified. There are already national strategies and policies in place, although no study has been carried out on the management of hazardous waste. The development of such a study is indispensable for improving the management of this priority waste stream.

In the period 2009 to 2013, the main challenge will be to establish an integrated regional municipal waste management system, switching gradually from dumping waste at numerous uncontrolled sites to sanitary engineered landfills each serving at least 200,000 inhabitants. In addition, a national system for the handling of hazardous waste and special waste streams (such as health care waste, waste oils, batteries and accumulators, end-of-life vehicles, electrical and electronic waste etc.) should be established progressively. Addressing historical pollution from industrial hotspots is also an issue covered by the NEIS (see below).

To avoid competition for funds between different types of investments in the future, the following sub-sectors have been distinguished:

- The integrated (regional) management of municipal waste.
- Hazardous and clinical waste management.
- Pilot projects for waste streams to be diverted from landfilling (such as packaging or biodegradable waste).
- The remediation of industrial hotspots (considered in a separate chapter below).

### 3.3.1 Municipal waste management

A regional approach has been adopted in line with EU practices in order to optimise costs and achieve economies of scale. The National Waste Management Strategy, 2008–2020 calls for a regional approach to municipal waste management through obligatory regional associations<sup>12</sup> of municipalities (inter-municipal public enterprises) to exercise joint ownership over the regional facilities.

Investments in regional systems will include:

- The construction of regional sanitary landfills in compliance with the EU Landfill Directive.
- Organising the separate collection of waste streams for recovery where appropriate.
- The collection and transportation of residual waste.
- The remediation of illegal dumpsites.

The NEIS establishes municipal waste management regions based on the Law on Balanced Regional Development, as well as on previous national strategies and feasibility studies.

The prioritisation takes into account the following:

- All regions start from a similar position in terms of the environmental problems arising from improper disposal practices.
- The administrative maturity of single municipalities participating in a region differs significantly, which is the main reason why the financial criterion used in the water sector (the fiscal capacity of the municipality) is not applicable in the waste sector.
- Feasibility studies for three regions have been developed. However, even though funding was available for the South West and Pelagonija regions (a KfW soft loan in 2004 backed by national co-financing), the municipalities were reluctant to organise the envisaged regional institutions, which were a pre-condition for starting implementation (inter-municipal public enterprises that will be transformed into a limited liability company receiving private capital).
- In the North East and Central East regions, the proposed locations for landfills were rejected and the establishment of the inter-municipal organisation was not even discussed.

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<sup>12</sup> Although these associations are not a legal requirement, they are a key part of the government strategy (see the National Waste Management Strategy, as adopted by the government).

**Table 12: Waste management regions**

Region	Constituent municipalities	Population	Landfill site	Approx. investment (million euro)
Skopje	City of Skopje (and the municipalities of the City of Skopje), Aracinovo, Ilinden, Petrovec, Cucer Sandevo and Zelenikovo	644,592	Drisla	15
Polog	Tetovo, Vrapciste, Gostivar, Mavrovo-Rostuse, Brvenica, Zelino, Jegunovce, Tearce	277,729	Rusino*	8
South West	Debar, Centar Zupa, Kicevo, Vranestica, Drugovo, Zajas, Oslomej, M. Brod, Plasnica, Ohrid, Struga, Vevcani, Debarca	222,639	(Topolcani <sup>13</sup> )	10
Pelagonija	Bitola, Mogila, Novaci, Demir Hisar, Krusevo, Prilep, Dolneni, Krivogastani, Resen	238,436	Topolcani	10
Vardar	Veles, Gradsko, Caska, Kavadarci, Rosoman, Negotino, Demir Kapija	133,180	Veles*	12
North East	Kratovo, Kriva Palanka, Rankovce, Kumanovo, Lipkovo, Staro Nagoricane	172,787	Kumanovo**	8
Central East	Berovo, Pehcevo, Vinica, Delcevo, M. Kamenica, Kocani, Zrnovci, Ces-Oblesevo, Probistip, Sv. Nikole, Lozovo, Stip, Karbinci	203,213	Karbinci**	8

<sup>13</sup> The South West and Pelagonija regions were considered as a single integrated region with a landfill to be located in Topolcani in the KfW feasibility study of 2004.

\* Indicative locations, based on current knowledge and the NWMP (2005)

\*\* Locations selected in the existing regional feasibility study (2005)

Region	Constituent municipalities	Population	Landfill site	Approx. investment (million euro)
South East	Valandovo, Gevgelija, Bogdanci, Dojran, Radovis, Konce, Strumica, Bosilovo, Vasilevo, Novo Selo	171,416	Novo Selo*	8

The government will therefore support the municipalities by providing technical assistance (quality management approach) to foster the process of establishing regional municipal waste management. The quality management team will provide support and expertise on necessary reforms, the preparation of legal acts, and the collection of data for preparing the application for financial support. This approach should stimulate the municipalities to cooperate and comply with certain established criteria before qualifying for funding in the period 2010 to 2013 through IPA Component III.

The seven benchmarks presented in the NEIS should ensure the proper planning and implementation of waste management projects as a main prerequisite for obtaining financial support for integrated regional waste management projects. The box below sets out an indicative system of benchmarks for the regional projects.

All eight regions will be invited to participate in the selection of the first projects to be funded. The first stage appears to be the most challenging, because agreement as to the location of a landfill site usually requires a lot of negotiations and efforts. In this phase, municipalities will receive neither technical nor financial assistance. As soon as the beneficiaries send their application for financing, signed by the mayor and with an agreed location for the sanitary landfill, the quality management team will initiate technical support, which will continue until full compliance with the benchmarks/criteria has been reached. This will be a challenging process for the municipalities, and only the best and most determined will qualify for financing.

### Box 3: Indicative benchmarks for regional waste management projects

**Benchmark 1:** Enter the system (applicants are eligible only if they submit a signed application with an agreed location of the landfill)

**Benchmark 2** (Approximate time for fulfilment — three months):

- *Technical:* review of existing documents (e.g. feasibility studies, existing local waste strategy, local environmental action plan).
- *Legal:* for example regional cooperation contracted, covering more than 50 percent of the population served and three municipalities.
- *Administrative/financial criteria:* proven fiscal capacity of major municipalities based on submitted documents and on-site financial control.

After passing this benchmark, an application for technical assistance, planning and administrative improvement can be formulated.

**Benchmark 3** (Six months): This benchmark concerns the planning process and starts with the approval of a grant for technical assistance (e.g. the update of the feasibility study, planning for an IPA application). At the end, technical, legal and administrative benchmarks must again be met:

- *Technical:* e.g. development of a regional waste management plan.
- *Legal:* e.g. establishment of a designated unit for project preparation and implementation.
- *Administrative:* e.g. development of an institutional development plan, 75 percent of the population served, with fee collection at a minimum of 60 percent of the population served.

After meeting these benchmarks, the preparation of an IPA project (including cost benefit analysis, basic design and landfill technology etc.) can be started and submitted.

**Benchmark 4:** Starts with the approval of an IPA grant. Within a set timeframe (for complying with n + 3 rules), certain criteria have to be met (e.g. obtaining a permit, tendering, increasing fee collection to 70 percent of the population served etc).

**Benchmark 5:** Start of construction — the municipality should demonstrate that all sub-contractors have been selected in accordance with a transparent tendering procedure.

**Benchmark 6:** Ends with the approval of a mid-term report and additional administrative criteria (e.g. increasing fee collection to 90 percent of the population served etc.).

**Benchmark 7:** At the end of the construction, reports on the finalisation of the landfill and the remediation of the old dumping sites, and a report on fee collection, have to be approved in order to obtain the final instalment of the grant.

In addition to the conditions described above, there will be suggestions to increase tariffs, improve the efficiency of the public enterprises, and extend the collection area etc. during the project implementation phase (construction of facilities). The assistance provided by the quality management team will be directed towards defining appropriate measures to achieve all the above-mentioned requirements.

The IPA is regarded as the most favourable source of financing for municipal waste management projects. Co-financing can be made available either from the national budget or from loans. PPP is not proposed as a co-financing option because it is very difficult to comply with the contracting requirements of the EU (IPA) and private funding at the same time. In the event that PPP is included in such projects, it will be necessary to provide professional assistance from developed EU countries. Projects financed by the IPA must be implemented in accordance with the Practical Guide to Contract Procedures for EC External Actions (PRAG).

The tables below present the financing plans for the three projects, the implementation of which will start in the 2009 to 2013 period. Because of the complexity of these projects, there is a substantial difference between the commitment and disbursement of the relevant funds, as shown in the tables. It is expected that, with the implementation of the first regional waste management systems, good examples will speed up the regional approach in other regions.

**Table 13: Regional waste management projects — commitments (in million euro)**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009			1.50	1.50		<b>1.50</b>
2010	0.51	1.52		2.03		<b>2.03</b>
2011	2.82	8.47		11.30	1.23	<b>12.52</b>
2012	3.56	10.68		14.24	1.05	<b>15.29</b>
2013	4.13	12.39		16.52	1.30	<b>17.82</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>11.02</b>	<b>33.06</b>	<b>1.50</b>	<b>45.58</b>	<b>3.58</b>	<b>49.16</b>
Share of total	22.4%	67.3%	3.1%	92.7%	7.3%	100.0%

**Table 14: Regional waste management projects — disbursements (in million euro)**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009			0.25	0.25		<b>0.25</b>
2010	0.09	0.28	1.25	1.62		<b>1.62</b>
2011	0.15	0.46		0.62	-	<b>0.62</b>
2012	1.26	3.78		5.04	0.34	<b>5.38</b>
2013	2.33	7.00		9.33	0.79	<b>10.13</b>
2014 and after	7.18	21.54	-	28.72	2.44	<b>31.16</b>
<b>Total</b>	<b>11.02</b>	<b>33.06</b>	<b>1.50</b>	<b>45.58</b>	<b>3.58</b>	<b>49.16</b>
Share of total	22.4%	67.3%	3.1%	92.7%	7.3%	100.0%

### 3.3.2 Management of hazardous waste and other special waste streams

Because of the environmental and health implications of improperly managed hazardous waste, and bearing in mind economies of scale, the National Waste Management Plan (revised in 2008 and to be adopted in 2009) calls for a national-level approach to dealing with these waste streams. A feasibility study will be financed in 2009 as a top priority in order to identify the best treatment and disposal solutions. Apart from the technical design of the system, the legal and institutional set-up must be defined, addressing the permitting process for storage, the licensing of transporters, and the establishment of a public enterprise for the future operation of the relevant facilities.

A proposal for addressing the improper handling of health care (clinical) waste is included in the Feasibility Study on the Management of Hazardous Health Care Waste (2007). Prior to funding, the ownership of the facilities must be clarified through an association of hospitals. Apart from the legal/institutional set-up, the financing of the operation of the system must be ensured through the payment of tariffs in addition to those currently paid for the collection and disposal of mixed waste by public utilities. According to government recommendations, the MEPP is involved in preparatory activities for the construction of an incinerator for health care waste at the Drisla landfill.

The national management systems for hazardous and health care waste are to be financed as one or two IPA projects (see the financing tables below). Bilateral aid is envisaged to finance the feasibility study for the national hazardous waste system.

A further priority is the management and disposal of low- and intermediate-level radioactive waste, which is not dealt with by the Law on Waste Management. The Radiation Safety Directorate is responsible for regulating the collection, storage, transportation and disposal of this waste. A project to address these requirements was launched in 2002 and needs a relatively small amount of money from the state budget to complement existing funding from the International Atomic Energy Agency (IAEA).

Finally, the Law on Waste Management includes basic requirements for the management of certain special waste streams:

- Waste oils
- Polychlorinated biphenyls (PCBs)
- Used batteries and waste electrical and electronic equipment (WEEE)
- End-of-life vehicles (ELVs)
- Asbestos waste

Bearing in mind the lack of capital for addressing the management of special waste streams, possibilities for alternative funding (such as producer responsibility) should be investigated as a means of mobilising private capital. According to the National Strategy for Environmental Approximation, the timeframe for achieving compliance with directives on special waste streams is 2010 to 2014. The NEIS does not foresee funding for investments in these areas; it is more appropriate to plan investments for project preparation as a base for starting construction activities after 2014.

**Table 15: National waste management projects — commitments (in million euro)**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009	-	-	0.85	0.85		<b>0.85</b>
2010	1.27	3.81	-	5.08	0.38	<b>5.46</b>
2011	0.41	1.22	-	1.62	0.09	<b>1.71</b>
2012	-	-	-	-		-
2013	-	-	-	-		-
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>1.68</b>	<b>5.03</b>	<b>0.85</b>	<b>7.55</b>	<b>0.47</b>	<b>8.02</b>
Share of total	20.9%	62.6%	10.6%	94.1%	5.9%	100.0%

**Table 16: National waste management projects — disbursements (in million euro)**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009	-	-	0.40	0.40	-	<b>0.40</b>
2010	-	-	0.45	0.45	-	<b>0.45</b>
2011	0.17	0.50	-	0.67	0.05	<b>0.71</b>
2012	1.00	3.00	-	4.00	0.28	<b>4.28</b>
2013	0.51	1.53	-	2.03	0.14	<b>2.18</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>1.68</b>	<b>5.03</b>	<b>0.85</b>	<b>7.55</b>	<b>0.47</b>	<b>8.02</b>
Share of total	20.9%	62.7%	10.6%	94.1%	5.9%	100.0%

### 3.3.3 Pilot waste projects

The funding of pilot projects on the separate collection and recycling/recovery of packaging and biodegradable waste (composting, bio-digestion etc.) should be provided through annual calls for proposals. Ideally, these projects will be covered by integrated systems. However, this grant scheme should satisfy the waste hierarchy requirements of the EU and national legislation, and enable the implementation of smaller pilot projects outside the first regions selected for integrated projects.

Calls for proposals should be organised in two stages.

- The first stage is intended for obtaining suitable project ideas, while the quality management teams will assist the project beneficiaries with the preparation of the full proposals.



- During the second stage, benchmarks will be set to ensure the sustainability of funded projects.

The majority of funds for this programme should be provided by the MEPP (as part of the existing statutory National Environmental Investment Programme), and the rest should come from bilateral grants, together with a small own contribution. The financing plan for this sub-sector is as follows:

**Table 17: Pilot projects — allocation (in million euro)**

Million euro (2008 prices)	Grants			Subtotal grants	Own contribution	Total
	Central budget	IPA	Other donors (grants)			
2009				-		-
2010	0.46		0.65	1.11		<b>1.11</b>
2011	1.72		0.32	2.04	0.27	<b>2.31</b>
2012	1.72		0.32	2.04	0.27	<b>2.31</b>
2013	1.72		0.32	2.04	0.27	<b>2.31</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>5.62</b>	<b>-</b>	<b>1.61</b>	<b>7.23</b>	<b>0.80</b>	<b>8.03</b>
Share of total	70.0%	0.0%	20.0%	90.0%	10.0%	100.0%

### 3.4 Industrial hotspots

Decades of industrialisation and the extensive exploitation of natural resources have left a number of areas in the country heavily polluted. An inventory made under an EU CARDS 2001 project for the preparation of a national waste management plan led to the identification of 16 major industrial polluted sites — so-called hotspots. These have been ranked based on the inherent environmental risk.

Some follow-up projects have been initiated by the UNDP (“Sustainable mining clean-up and pollution management in Bucim and Lojane Mine”) and the CARDS 2006 programme (“Development of Remediation Plans with Financial Requirements for Elimination of Industrial Hotspots”). The UNDP provides funding for remediation, and PPP is regarded as an option to close the financing gap. The deadline for project implementation is 2010.

The CARDS 2006 project developed remediation plans with cost estimates for the following hotspots:

1. OHIS plant, Skopje (organo-chemical industry)
2. MHK Zletovo plant, Veles (lead and zinc smelter)
3. Silmak plant, Jegunovce (ferro-silicium smelter)
4. Makstil plant, Skopje (iron and steel smelter)

The anticipated remediation methods involve measures that entail payback through the extraction of metal residues in sludge or the use of land for different economic activities (“brownfield developments”), which may attract interest for investment.

Priority for implementation is given to MHK Zletovo due to the large health risks and the possible “win-win” effect of the investment.

The funding is to come partially from the national budget and bilateral grants, and from a private partner. The total investment is estimated at EUR 22 million, while the national contribution attracting private capital amounts to EUR 6.02 million.

**Table 18: Industrial hotspots — allocations (in million euro)**

<i>Million euro (2008 prices)</i>	<b>Grants</b>			<i>Subtotal grants</i>	<b>Own contribution</b>	<b>Total</b>
	<b>Central budget</b>	<b>IPA</b>	<b>Other donors (grants)</b>			
2009	-	-	-	-	-	-
2010	-	-	-	-	-	-
2011	0.30	-	1.20	1.50	-	<b>1.50</b>
2012	0.50	-	2.00	2.50	-	<b>2.50</b>
2013	0.40	-	1.62	2.02	-	<b>2.02</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>1.20</b>	<b>-</b>	<b>4.82</b>	<b>6.02</b>	<b>-</b>	<b>6.02</b>
<i>Share of total</i>	20.0%	0.0%	80.0%	100.0%	0.0%	100.0%

### 3.5 Integrated pollution prevention and control

In order to achieve compliance with the IPPC Directive, EUR 572 million investments and EUR 39 million annual operating costs have to be covered by industry (investment and operating costs in abatement systems), the MEPP and municipalities (mainly in training, administration and staff costs).

The IPPC permitting system was passed into law in Macedonia in 2006. Around 120 “A” IPPC installations (responsibility of the MEPP) and 250 “B” IPPC installations (responsibility of municipalities) have to obtain adjustment permits. The submission of applications is behind schedule because the permitting authorities lack the capacities for processing and issuing permits.

With the intention of facilitating the process of financing adjustment programmes, the NEIS proposes a state-guaranteed loan from an IFI to provide a soft credit line to industry for the necessary investments. Additional funding will also be needed to meet the administrative costs associated with the programme, and some capacity building will be required for the financial intermediary institution or institutions. Prior to implementation, however, the details of this approach must be further discussed with the Ministry of Finance and the appropriate IFI identified.

Assistance in the form of loans will be available for implementing the measures proposed in the adjustment plans approved by the MEPP or LSGs, regardless of the ownership of the facilities. However, only installations with an approved IPPC adjustment plan will be eligible. The first call for proposals must therefore be linked to a benchmark for a sufficient number of processed applications and issued permits. The responsible department in the MEPP will need to be strengthened in order to meet this benchmark, although funding for this falls outside the NEIS.

An indicative disbursement schedule for the credit scheme is given below. It should be stressed that this does not include the funds that will themselves be loaned to participants in the scheme.

**Table 19: IPPC credit line — indicative disbursement schedule (in million euro)**

<i>Million euro (2008 prices)</i>	<b>Grants</b>			<i>Subtotal grants</i>	<b>Own contribution</b>	<b>Total</b>
	<b>Central budget</b>	<b>IPA</b>	<b>Other donors (grants)</b>			
2009	-	-	-	-	-	-
2010	-	-	-	-	-	-
2011	0.30	-	1.20	1.50	-	<b>1.50</b>
2012	0.50	-	2.00	2.50	-	<b>2.50</b>
2013	0.40	-	1.62	2.02	-	<b>2.02</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>1.20</b>	<b>-</b>	<b>4.82</b>	<b>6.02</b>	<b>-</b>	<b>6.02</b>
<i>Share of total</i>	20.0%	0.0%	80.0%	100.0%	0.0%	100.0%

Besides the credit line for industries, funds for the preparation of applications for IPPC permits in the agro-business sector could be provided through IPA Component V. For example, the milk processing industry and pig farms could use IPA funds for project preparation as well as for the implementation of investment measures. As real financial needs have still not been assessed, the NEIS does not include these investments in the overall financial envelope.

### 3.6 Air quality

Responsibility for the improvement of ambient air quality is divided between the MEPP, the Ministry of Health and local authorities. The cost of achieving compliance with the environmental acquis in this area is high, although it primarily falls outside the public sector (especially on industry). In practice, it is often impossible to distinguish IPPC compliance investments from air protection investments.

One of the key roles of government is in monitoring air quality as a prerequisite for its management. The monitoring network of the MEPP is well equipped and able to work according to methodologies determined with EU legislation. The measured substances are SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, CO, PM<sub>10</sub>, benzene, ethyl-benzene, o-xylen, and p-xylen. The measuring of PM<sub>2.5</sub> and heavy metals will be introduced in

the near future. Financing is required for modelling techniques to supplement the monitoring and to cover the maintenance costs of the equipment.

The first List of Zones and Agglomerations was prepared by the CARDS 2004 project and adopted in February 2009. For the time being, only continuous monitoring for highly populated areas exists. No randomly made representative samples from other localities are available.

There have been significant investments in the sector during the last decade. The investments planned under the NEIS (to be financed from the IPA and the state budget) are intended to complete the existing monitoring system with the addition of five new monitoring stations, an online data collection system, plus sampling and analytical equipment. A prerequisite for the procurement of new equipment is budgetary provision for the operation and maintenance of both existing and new equipment.<sup>14</sup>

The tables below summarise the planned commitment and disbursement of funds. Technical assistance outside the scope of the NEIS will also be required in the future to improve the air quality modelling techniques needed to achieve compliance with EU directives, and financial assistance will be planned with the programmes of the MEPP and included in negotiations with bilateral donors.

**Table 20: Air quality management — commitments (in million euro)**

<i>Million euro (2008 prices)</i>	<b>Grants</b>			<i>Subtotal grants</i>	<b>Own contribution</b>	<b>Total</b>
	<b>Central budget</b>	<b>IPA</b>	<b>Other donors (grants)</b>			
2009	-	-	-	-	-	-
2010	1.00	3.01	-	4.02	-	<b>4.02</b>
2011	-	-	-	-	-	-
2012	-	-	-	-	-	-
2013	-	-	-	-	-	-
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>1.00</b>	<b>3.01</b>	<b>-</b>	<b>4.02</b>	<b>-</b>	<b>4.02</b>
<i>Share of total</i>	25.0%	75.0%	0.0%	100.0%	0.0%	100.0%

<sup>14</sup> These costs are estimated at EUR 600,000 per year for the existing monitoring equipment, plus EUR 250,000 annually for a central laboratory.

**Table 21: Air quality management — disbursements (in million euro)**

<i>Million euro (2008 prices)</i>	<b>Grants</b>			<i>Subtotal grants</i>	<b>Own contribution</b>	<b>Total</b>
	Central budget	IPA	Other donors (grants)			
2009	-	-	-	-	-	-
2010	-	-	-	-	-	-
2011	0.25	0.75	-	1.00	-	1.00
2012	0.50	1.51	-	2.01	-	2.01
2013	0.25	0.75	-	1.00	-	1.00
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>1.00</b>	<b>3.01</b>	<b>-</b>	<b>4.02</b>	<b>-</b>	<b>4.02</b>
<i>Share of total</i>	25.0%	75.0%	0.0%	100.0%	0.0%	100.0%

### 3.7 Climate protection

The **Ministry of Environment and Physical Planning (MEPP)** is the designated National Focal Point to the UN Framework Convention on Climate Change (UNFCCC) and is the key governmental body responsible for policy making in this area. The MEPP hosts the Climate Change Project Office, set up to coordinate the preparation of national communications under the UNFCCC and for the development of projects related to climate change. Furthermore, the MEPP was nominated as the country's designated national authority (DNA) for the Clean Development Mechanism (CDM).

The **Ministry of the Economy** is responsible for the design and implementation of overall energy policy, including energy efficiency measures and renewable energy sources. Financing mechanisms are already foreseen (GEF and the World Bank through the Sustainable Energy Financing Facility, including loan guarantees provided in the form of a USAID grant). The Energy Agency has been established to facilitate the process of the implementation of energy efficiency and renewable energy projects.

The climate protection chapter of the NEIS provides grants intended for project preparation (baseline scenarios) to attract CDM funding. These are proposed in the form of 50 percent co-financing for investors interested in CDM projects in Macedonia, up to a total cost (per study) of EUR 150,000. At the start of the grant scheme, some of the funds will be used to market the scheme to potential foreign and domestic investors (beneficiaries).

**Table 22: Climate protection — allocations (in million euro)**

<i>Million euro (2008 prices)</i>	<b>Grants</b>				<b>Own contribution</b>	<b>Total</b>
	Central budget	IPA	Other donors (grants)	<i>Subtotal grants</i>		
2009	-	-	-	-		-
2010	0.03	-	-	0.03	0.03	<b>0.06</b>
2011	0.06	-	-	0.06	0.06	<b>0.12</b>
2012	0.06	-	-	0.06	0.06	<b>0.12</b>
2013	0.06	-	-	0.06	0.06	<b>0.12</b>
2014 and after	0.09	-	-	0.09	0.09	<b>0.18</b>
<b>Total</b>	<b>0.30</b>	-	-	<b>0.30</b>	<b>0.30</b>	<b>0.60</b>
<i>Share of total</i>	50.0%	0.0%	0.0%	50.0%	50.0%	100.0%

### 3.8 Nature protection

The NEIS sets out a list of projects with the aim of contributing mainly to the implementation of the following directives:

- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive)
- Council Directive 79/409/EEC on the conservation of wild birds (the Birds Directive)
- Endangered Species Regulation 97/338/ECC
- Council Directive 1999/22/EC relating to the keeping of wild animals in zoos (the Zoos Directive).

The Habitats Directive (together with the Birds Directive) forms the cornerstone of Europe's nature conservation policy and was the basic EC directive during the planning of nature protection in the scope of the NEIS. The Habitats Directive is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection.

International conventions must also be taken into account, including, in particular:

- Convention on Biological Diversity (CBD)
- Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Convention on Migratory Species (the Bonn Convention)

The responsible authority for the implementation of EU nature protection directives is the MEPP. The Ministry of Agriculture, Forestry and Water Management has competencies relating to forests and forestry, hunting and fishing; and the Ministry of

the Economy has some competencies relating to the exploitation of mineral resources, in connection with the preservation of biodiversity and geodiversity.

In total, 185 projects were identified in existing strategies, while a large number of local initiatives were reduced to nine project clusters. The first list of projects (identified in the Biodiversity Strategy and Action Plan of the Republic of Macedonia, the Spatial Plan of the Republic of Macedonia, the National Strategy for Organic Agriculture, the Strategy for the Sustainable Development of Forestry etc.) are in line with the Habitats and Birds Directives, while the second list comprises measures contributing to sustainable development (the sustainable use of natural resources, such as eco-tourism, sustainable agriculture etc.), as well as habitat restoration (afforestation, wetland restoration etc.) and some capacity-building measures and training.

All identified projects were ranked according to 15 criteria (e.g. compliance with EU directives, Natura 2000, international conventions, national strategies, existence of local initiatives and cost-effectiveness).

According to the National Strategy for Environmental Approximation, the total investment costs in the nature sector were estimated at EUR 20 million in capital costs and EUR 11 million in operational costs. Most of this funding was foreseen for the protected areas component. In the NEIS, a significantly larger amount (c. EUR 90.7 million) was estimated, taking into consideration habitat restoration, species conservation outside protected areas, unique projects etc. For the period 2009 to 2013, EUR 7.67 million is foreseen.

The following tables present the planned commitment and disbursement of funds for nature protection investments under the NEIS.

**Table 23: Nature protection — commitments (in million euro)**

<i>Million euro (2008 prices)</i>	<b>Grants</b>			<i>Subtotal grants</i>	<b>Own contribution</b>	<b>Total</b>
	<b>Central budget</b>	<b>IPA</b>	<b>Other donors (grants)</b>			
2009	0.87	2.00	-	2.87	-	<b>2.87</b>
2010	0.87	1.00	1.00	2.87	-	<b>2.87</b>
2011	0.53	-	1.00	1.53	-	<b>1.53</b>
2012	0.20	-	-	0.20	-	<b>0.20</b>
2013	0.20	-	-	0.20	-	<b>0.20</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>2.67</b>	<b>3.00</b>	<b>2.00</b>	<b>7.67</b>	-	<b>7.67</b>
<i>Share of total</i>	34.8%	39.1%	26.1%	100.0%	0.0%	100.0%

**Table 24:** Nature protection — disbursements (in million euro)

<i>Million euro (2008 prices)</i>	<b>Grants</b>				<b>Own contribution</b>	<b>Total</b>
	Central budget	IPA	Other donors (grants)	<i>Subtotal grants</i>		
2009	0.20	-	-	0.20	-	<b>0.20</b>
2010	0.20	-	-	0.20	-	<b>0.20</b>
2011	1.03	2.00	0.50	3.53	-	<b>3.53</b>
2012	0.87	1.00	1.00	2.87	-	<b>2.87</b>
2013	0.37	-	0.50	0.87	-	<b>0.87</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>2.67</b>	<b>3.00</b>	<b>2.00</b>	<b>7.67</b>	-	<b>7.67</b>
<i>Share of total</i>	34.8%	39.1%	26.1%	100.0%	0.0%	100.0%

The above funds are to be used to finance three (large) projects, two of which are taken from the first and one from the second list. These are as follows:

- Establishment of Jablanica National Park
- Establishment of Jakupica National Park
- Osogovo project for nature conservation and sustainable development

The Jablanica and Osogovo projects are proposed for financing under the IPA cross-border programme covering Bulgaria and the Republic of Macedonia; and Albania and the Republic of Macedonia. The numbers presented in this NEIS are indicative, as cross-border operational programmes only covered the period up to 2009. Although funds under IPA Component II will be granted through open calls, the NEIS recommends the above-mentioned projects to be implemented as projects of national interest. The MEPP will provide assistance to the municipalities, NGOs and other eligible applicants in the preparation of good project proposals. It is proposed that the Jakupica National Park be financed by a combination of bilateral grant (75 percent) and central government funds (25 percent).

In addition, it is proposed that a certain amount of funding be earmarked annually within the statutory National Environmental Investment Programme (under the Law on Environment) for nature protection projects. The main focus of these projects should be to support the drafting of IPA applications by municipalities for sustainable agriculture (IPA Component V) and cross-border cooperation (IPA Component II).







## 4. Institutional strengthening

### 4.1 Current situation

For the first IPA period, the division of roles for IPA implementation has been agreed and is set out in a series of documents, including the operational agreements between the Ministry of Finance and the MEPP and MTC for Component III (regional development). Some institutions are already in place and have started their work.

In the MEPP, a unit is foreseen with the primary role of implementing IPA projects in the environment sector, and at present only six persons have been engaged for this unit. According to the National Plan for the Adoption of the Acquis (NPAA), this unit should engage 20 persons for the successful implementation of the projects. It is therefore clear that, in the current situation, the structure is insufficient for dealing with IPA projects; furthermore, accreditation is still missing. Following their recruitment, new staff members will require training and capacity building in order to prepare them for their future duties. Thus sufficient time must be planned for the starting phase.

### 4.2 Mid-term solution

A governmental (inter-ministerial) body, such as an agency for environmental investments, is considered as an optimal medium-term option, addressing the present lack of coordination in regard to integrated planning, standardised procedures and the directed allocation of funds to national priorities.

This body could provide resources for the implementation of the quality management process as support to municipalities in the identification, preparation and implementation of the investment projects.

Existing personnel from line ministries could be engaged within the framework of this body. Given the expected move towards the extended decentralised implementation of EU aid, the proposed agency for environmental investments could extend its functions to serve as the intermediate body for the implementation of Structural and Cohesion Funds. For a stand-alone body, at least 2 percent of the total available funds would be needed for administration costs (this proportion is based on international experience).

Other institutional options have also been discussed with different stakeholders (such as a fund in the MEPP, a governmental fund, or a fund situated within the framework of the national development bank). In the current situation, no such solution involving the establishment or recruitment of a new body was acceptable due to the additional capital and operational costs needed for its functioning.

### 4.3 IPA implementation

As soon as the IPA structures are in place and accredited, the implementation of environmental projects can start.

Within the decentralised system for the implementation of projects financed by the IPA, the Central Financing and Contracting Department (CFCD) — as part of the operational structure — is responsible for the implementation of tender procedures, contracting, payments according to signed contracts, accounting and monitoring project implementation.

Programming, technical implementation and monitoring project realisation are the responsibilities of the IPA department/unit in the MEPP. It is important to emphasise that the manager of the CFCD, as the manager of the operational structure, has full responsibility over project implementation and is therefore responsible for the supervision of the decentralised implementation of all IPA-funded projects (for four components). The national coordinator for authorisation, in charge of the national fund, is responsible for the timely provision of national co-financing within the framework of the national budget. The Secretariat for European Affairs (Department of Monitoring and Evaluation) is responsible for monitoring the implementation of component I of the programme, and also has full responsibility for the implementation of the overall IPA assistance.

As mentioned above, at present six persons have been engaged for the IPA department of the MEPP, while, according to the NPAA, a total of 20 people are foreseen. The additional qualified personnel necessary for the implementation of the investment projects in the next IPA cycle (at least three regions for waste management) could be provided by the transfer of personnel from other sectors within the framework of the MEPP.

### 4.4 Other projects (non-IPA projects)

There are two types of projects in addition to IPA projects:

- Environmental projects (Skopje wastewater stage 1, waste pilot projects, industrial hotspots, IPPC, climate protection), which have to be financed by the MEPP.
- Water and sewerage projects financed by the MTC and the MEPP.

In both the MTC and the MEPP, there is an apparent need for the strengthening of capacity. In particular, international standards for project selection should be met. A clear division of competencies between approval and appraisal on the one hand, and implementation and control on the other, must therefore be introduced. In the present situation, this separation has not been secured and additional members of staff to meet these minimum administrative criteria are therefore required.

Without direct involvement in the quality management tasks, the required staff would be at least 10 additional officers for each line ministry.

According to the NPAA, for the period 2009 to 2011 the sector for sustainable development should comprise 14 persons. These will be distributed through at least two departments (e.g. departments for project preparation and investments), in order to obey the first level control principle. There is a need to strengthen capacities in respect to quality management in this sector.

As for institutional strengthening for the implementation of environmental investments, the question of new positions in the MEPP remains open. The MTC is taking over certain activities for establishing a new department for the implementation of the investments foreseen in this NEIS (water sector) within the framework of the communal and infrastructure sector.

#### **4.5 Quality management**

Quality management is a process implemented by a multidisciplinary team of experts (with knowledge of technical, financial and institutional issues), who have been trained in project cycle management and EU appraisal techniques and who are monitored by the competent authorities for environmental investments. The quality management function can be located in a specific ministry (preferably each individual ministry dealing with environmental investments) or at a single institution acting as a coordinating body for the implementation of environmental investments on behalf of line ministries. The establishment of a project coordinating body (that will carry out the selection, implementation, monitoring and evaluation of project results, including quality management) has been postponed until after 2013. Meanwhile, it is expected that capacities in the line ministries for performing the above-mentioned functions will be strengthened, so that the trained staff will be part of a single body that will also be responsible for the coordination and implementation of the NEIS, as well as for quality management. Until 2013, it is recommended to recruit different national experts as part of the quality management team, to provide necessary training and afterwards to issue licences for their work engagements.

It is necessary to provide financial resources for the mobilisation and training of the quality management team. Grants from bilateral donors will be used for the preparation of the whole system, as well as for defining the criteria indicated in the NEIS for the water and waste sectors. International experts will be included in the whole process, and their task will be to provide training and support to local experts during the implementation of the first projects presented in this NEIS.

#### **4.6 Coordination between ministries**

The NEIS proposes to establish an inter-ministerial working group composed of technical experts who will be included in the prioritisation process and the selection of projects. The working group should meet at least twice a year to discuss the list of priority projects.

As for the projects to be financed by the IPA, the national coordinator for authorisation will arrange for the provision of national co-financing for IPA projects within the framework of the central budget.

**Table 25:** Strengthening the implementing institutions<sup>15</sup> — disbursements (in million euro)

<i>Million euro (2008 prices)</i>	<b>Grants</b>			<i>Subtotal grants</i>	<b>Own contribution</b>	<b>Total</b>
	Central budget	IPA	Other donors (grants)			
2009	0.20	-	-	0.20	-	<b>0.20</b>
2010	0.20	-	-	0.20	-	<b>0.20</b>
2011	1.03	2.00	0.50	3.53	-	<b>3.53</b>
2012	0.87	1.00	1.00	2.87	-	<b>2.87</b>
2013	0.37	-	0.50	0.87	-	<b>0.87</b>
2014 and after	-	-	-	-	-	-
<b>Total</b>	<b>2.67</b>	<b>3.00</b>	<b>2.00</b>	<b>7.67</b>	-	<b>7.67</b>
<i>Share of total</i>	34.8%	39.1%	26.1%	100.0%	0.0%	100.0%

The table above presents indicative additional financial resources needed for the implementation of the NEIS in connection with:

- New employment positions (according to the NPAA) needed for capacity building in the MEPP in regard to the utilisation of pre-accession funds and the implementation of national investments in the wastewater treatment sector.
- New employment positions needed for capacity building in the sector for investments and project preparation in regard to the implementation of projects financed from domestic and other foreign sources.
- New employment positions in the MTC needed for capacity building in regard to the implementation of investments in the water supply and sewerage sectors.
- The financial resources needed for the establishment of the project unit for the implementation of the credit line from the EIB in the water sector.
- Administrative costs for the operation of the body/coordinating unit.
- Financial resources needed for strengthening capacities for the programming, implementation and monitoring of projects (for IPA and other projects financed from other sources). These funds will be provided under IPA Component I in order to utilise the Twinning instrument (continuous support from institution to institution).

As mentioned above, the table presents indicative financial resources: the real figures depend on the dynamics of the implementation of the NEIS.

<sup>15</sup> This covers additional operating costs for the implementation of the NEIS and for an outsourced quality management team.

## 4.7 Tasks of the institutions responsible for the implementation of the NEIS

The tasks of an optimal project management cycle are laid down in several international guidelines and handbooks. The most recent and complete was issued by the OECD in 2007.<sup>16</sup> Following this template, the tasks have been allocated separately for the three main financing sources: IPA, non-IPA environmental projects and water supply/wastewater collection and treatment.

Handbooks for the internal procedures of individual institutions have also been prepared, as well as guidelines for regulating the responsibilities of all institutions included in the decentralised implementation of IPA projects, among which special attention should be paid to the handbook and guidelines for the implementation of programmes for the Central Financing and Contracting Department and handbooks for IPA coordinators for each separate IPA component.

In the institutional context, the following organisations should be distinguished during the implementation of the NEIS:

MEPP-Str	Strategic department (ongoing process)
MEPP-In	Investment unit (existing)
MEPP-M	Minister
MEPP-Co	Control unit (to be established)
MEPP-IPA	IPA Department (incomplete)
CFCD	Central Financing and Contracting Department
Coordination unit	Inter-ministerial task force
Monitoring	Monitoring unit of the state secretariat for EU integration (deputy ministers from line ministries)
MTC-Com	Communal and Infrastructure Department — to separate the functions of strategic planning, project selection, project approval, implementation, monitoring, evaluation and control over the implementation of these functions
MTC-Im	Implementation Department — to separate the functions of project selection, project approval, implementation, monitoring, evaluation and control over the implementation of these functions

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<sup>16</sup> See [www.oecd.org/dataoecd/10/63/38786197.pdf](http://www.oecd.org/dataoecd/10/63/38786197.pdf)

**Table 26:** Responsibilities for the implementation of the NEIS

<b>Task/Unit</b>	<b>IPA</b>	<b>Non-IPA</b>	<b>Water/sewerage</b>
<b>Strategic planning</b>			
Update the NEIS on a regular basis	MEPP-Str	MEPP-Str	MEPP+MTC
Report on the implementation of the NEIS	MEPP-Str	MEPP-Str	MTC-Com
Formulate clear conditions and benchmarks and provide a handbook for compliance with the requested standards for quality management purposes	MEPP-IPA	MEPP-In	MTC-Com
<b>Project identification</b>			
Regular or limited call for proposals (for the first three to five selected priority projects) for pre-selected applicants	MEPP-IPA	MEPP-In	MTC-Com
Receive applications (meet benchmark 1 and send QM team)	MEPP-IPA	MEPP-In	MTC-Im
Data input for the application and processing	MEPP-IPA	MEPP-In	MTC-Im
Checking of benchmarks	MEPP-IPA	MEPP-in	MTC-Im
<b>Appraisal</b>			
Technical appraisal	MEPP-IPA	MEPP-In	MTC-Im
Financial appraisal	MEPP-IPA	MEPP-In	MTC-Im
Checking of compliance with the benchmarks/criteria for the project phase	QM	QM	MTC-Com
<b>Selection</b>			
Final appraisal	MEPP-IPA	MEPP-In	MTC-Com
Reporting on the project	MEPP-IPA	MEPP-In	MTC-Com
Preparing the approval of the ministers	Coordination unit (technical expert body)		
<b>Approval</b>			
Checking the reports about the selected projects	Coordination unit		
Giving additional comments	Coordination unit		
Preparing the final approval by the minister	Coordination unit		
Reporting on the final project selection process	Coordination unit		
<b>Implementation</b>			
Provision of financial assistance, contracting with the beneficiary (including formulation of conditions)	MEPP-IPA	MEPP-In	MTC-Im



<b>Task/Unit</b>	<b>IPA</b>	<b>Non-IPA</b>	<b>Water/sewerage</b>
Checking the conditions and the benchmarks of the QM	QM	QM	MTC-Im
Checking invoices (MEPP-IPA)	MEPP-IPA	MEPP-Co	MTC-Com
Payments	CFCD	MEPP-Co	MTC-Im
<b>Control of the project</b>			
On-the-spot control to verify invoices and reports	MEPP-IPA	MEPP-Co	MTC-Im
Checking environmental benefits	Monitoring	MEPP-Co	MTC-Im
Reporting	Monitoring	MEPP-Co	MTC-Im
<b>Control of the system</b>			
Control of the appraisal process (random samples, but a minimum of 10 percent)	Monitoring	MEPP-Co	MTC-Com
Control of environmental effects	Monitoring	MEPP-In	MTC-Im
Control of the QM team	MEPP-IPA	MEPP-In	MTC-Im
<b>Information policy</b>			
Inform the line ministries about the implementation of the NEIS (on a project basis as well as on a summary level)	MEPP-IPA	MEPP-In	MTC-Com
Inform applicants and beneficiaries about funding possibilities and conditions	MEPP-IPA	MEPP-In	MTC-Com
Inform international donors in order to attract additional funds	MEPP-Str	MEPP-Str	MTC-Com
Training and monitoring of the QM team	External international training		

Further activities in the forthcoming period will be directed towards strengthening the defined functions in order to implement the NEIS in accordance with EU project cycle management standards.

