

OPERATIONAL PROGRAMME "ENVIRONMENT 2007 -2013"

CCI No: 2007BG161PO005



SOFIA, 2007

TABLE OF CONTENTS:

| A. I | ntro | oduction | 5 |
|-------------|----------|---|------------|
| В. | Ex | -ante evaluation - conclusions and recommendations | 7 |
| | | | |
| C. | An | alysis of current situation | 14 |
| I. | | Water | 14 |
| | 1 | Water supply and water consumption | 14 |
| | 2 | Sewerage systems | 15 |
| | 3 | National Water Monitoring System | 17 |
| | 4 | Legislation and institutional framework in the sector | 17 |
| II. | | Waste | 20 |
| | 1 | Waste generation | |
| | 2 | Waste collection (including separate waste collection) | |
| | 3 | Waste recovery and disposal | |
| | 4 | Landfilling | |
| | 5 | Legislation and institutional framework in the sector | |
| III. | | Terrains polluted with waste | |
| | 1 | Existing landfills for waste and illegal dumpsites | |
| | 2 | Other waste contaminations | |
| IV. | | Air | |
| | 1 | Emissions of harmful substances | |
| | 2 | Legislation | |
| V. | | Greenhouse gas emissions | |
| VI. | | Biodiversity | |
| | 1 | Wild flora and fauna and natural habitats | |
| | 2 | Protected areas and management plans | |
| | 3 | Development of the national part of NATURA 2000 network | |
| 3711 | 4 | Legislation | |
| VII. | | | |
| VIII | | Financial needs for sector environment | |
| | 1 2 | Assessment of the necessary expenditure for sector environment | |
| IV | 2 | The role of the EU pre-accession instruments for sector environment | |
| IX. | 1 | ISPA Programme | |
| | 1 2 | PHARE Programme | |
| | 3 | SAPARD Programme | |
| | 4 | Lessons learned from pre-accession assistance | |
| | 4 | Lessons rearried from pre-accession assistance | |
| D. | SW | VOT Analysis | 41 |
| Ε. | OI | P strategic objectives and priority axes | 4 4 |
| _ | | | |
| I. | | OP strategic objectives | |
| | 1 | Global strategic objective. | |
| | 2 | Specific strategic objectives | |
| II. | 1 | OP priority axes. | 47 |
| | 1 | Priority axis 1: Improvement and development of water and wastewater infrastructure in settlements with | лс |
| | ove | er 2000 PE and in settlements below 2000 PE within urban agglomeration areas. | |
| | 3 | Priority axis 2: Improvement and development of waste treatment infrastructure | |
| | <i>3</i> | Priority axis 4: Technical Assistance | |
| | 7 | 1 Hority axio 7. 1 Comment Assistance | UC |
| F. | Co | ompliance with Community policies and EU legislation | 69 |

| | 1 | Partnership | |
|------|------------|---|-----|
| | 2 | Sustainable development | |
| | 3 | Environment protection | 72 |
| | 4 | Equal opportunities | 73 |
| | 5 | Protection of competition | 74 |
| | 6 | Public procurement | 75 |
| G. | Fin | ancial plan of OP "Environment 2007 - 2013" | 77 |
| Н. | Inet | titutional framework for implementation of OP "Environment 2007 – 2013" | 81 |
| | 1113 | interiorial numework for implementation of O1 Environment 2007 2015 | |
| I. | | Main bodies included in the framework. | |
| | 1 | Managing Authority | |
| | 2 | Intermediate Body | |
| | 3 | Certifying Authority | 82 |
| | 4 | Audit Authority | 83 |
| | 5 | Internal Audit Directorate | |
| | 6 | Compliance Assessment Body | |
| | 7 | Monitoring Committee | |
| | 8 | Projects Selection and Coordination Committee | |
| II. | | Distribution of tasks between the Managing Authority, Intermediate Body and Beneficiaries | |
| | 1 | Tasks of the Managing Authority | |
| | 2 | Tasks delegated to IB for implementation. | |
| | 3 | Tasks for implementation by Beneficiaries | |
| III. | | Evaluation of OP | |
| IV. | | Financial management and control of OP | 94 |
| | 1 | Information for the competent body for receiving payments from EC and for competent body making | 0.4 |
| | | ments to Beneficiaries. | |
| | 1.1 | Competent Body for receiving payments from EC. | |
| | 1.2 1.3 | Competent Body for making payment to Beneficiaries | |
| | 2 | Description of the financial flows for the OP: | |
| | | Accounting system to be used for OP "Environment 2007-2013" | |
| | 3 4 | Identification and reporting of irregularities | |
| | 5 | Audit | |
| | 5.1 | Institutions entitled to carry out audits for the OP "Environment" | |
| | 5.1 | Types of audits to be carried out for the OP | |
| | 5.3 | Documents of audit work | |
| v. | | Publicity and information for the OP | |
| VI. | | Procedures for computerized exchange of data with EC | |
| VI. | | Management Information System | |
| , | | Management Information officers | |
| I. | List | of major projects for OP "Environment 2007 - 2013" | 106 |
| | | | |
| J. | Anr | nexes | 110 |
| Anr | nex 1 | | 111 |
| Anr | nex 2 | | 112 |
| Anr | nex 3 | | 113 |
| Anr | nex 4 | | 115 |
| Anr | nex 5 | | 118 |
| Anr | nex 6 | | 120 |
| Anr | nex 7 | | 129 |

A. Introduction

The operational programme "Environment" is one of the seven operational programmes developed under the National Strategic Reference Framework of Republic of Bulgaria for the programming period 2007-2013. On the basis of the analysis of the current situation the programme sets the priority areas of the country for sector environment to be implemented and financed in the framework of the present document and within this period.

Through improvement and development of the basic environmental infrastructure, the operational programme would contribute to the implementation of the strategic vision for Bulgaria, set by the National Strategic Reference Framework for the period 2007-2013, namely: by 2015 Bulgaria should become a dynamic, competitive and accessible EU country with high quality of life, incomes and social awareness.

The operational programme (OP) is based on the goals and priorities of EU environmental policy and reflects the international environmental commitments that Bulgaria has undertaken, as well as both the commitments undertaken to the EU in the pre-accession period, and the specific national interests. The OP is prepared in accordance with the principles, formulated in the basic national documents for sector environment.

The OP supports the achievement of the following mid-term strategic goals of the Bulgarian National Strategic Reference Framework for the period 2007-2013:

- Strengthen the competitiveness of the economy to achieve high and sustainable growth;
- Develop human capital to ensure higher employment, income and social integration

To achieve these med-term goals Bulgaria needs to focus on four strategic priorities, first of them being the priority "Improving basic infrastructure". The present OP shall contribute mainly to this strategic priority of the NSRF by investments mainly in environmental infrastructure that would aim at supporting the growth of the economy and providing better quality of life.

The OP "Environment" is developed in the framework of the Convergence objective of the European Community and will be implemented with the financial support of the European Union (through the Cohesion Fund and the European Regional Development Fund).

The OP includes an analysis of the present situation of sector environment and a SWOT (strengths, weaknesses, opportunities and threats) analysis. On the basis of the results of these analyses and considering the disparities between the average level in the country and that in the EU on basic indicators for sector environment, the strategy of the OP, its objectives and priorities, the financial plan for their realization, and the implementation framework are defined.

The entire programming process has been organized and led by the Managing Authority (MA) of the OP – the "Cohesion Policy for the Environment" Directorate within the Ministry of Environment and Water.

The overall activity of the Ministry of Environment and Water is under the management of the Minister for Environment and Water. He is responsible for the implementation of the state environmental policy. The Minister manages, coordinates and controls the development and the implementation of state policy in environmental protection, prevention and use of water and earth resources. He realizes his competences pursuant to the Environmental Protection Act and other

relevant Acts and regulations. The Ministry of Environment and Water comprises of 15 directorates (3 directorates in the common administration and 12 directorates in the specialized administration). The following independent units are also functioning within the MOEW:

- the Executive Environmental Agency (EEA)- responsible for the national monitoring system of environment. The EEA is managed by a Managing Board, chaired by the Minister of Environment and Water.
- 15 Regional Inspectorates for Environment and Water (RIEW)- bodies of MOEW managed by a director, responsible for control and executive environmental issues on local level. RIEW control the fulfillment of environmental protection requirements by municipalities and industrial operators.
- 3 National Parks Directorates bodies of MOEW managed by a director, responsible for national parks protection on local level.
- 4 River Basin Directorates (RBD) bodies of MOEW managed by a director. RBD are responsible for the implementation of the national water protection policy on local level.
- Enterprise for management of environmental protection activities (EMEPA) body implementing environmental protection activities (projects) in compliance with national and municipal strategies and programs on environmental protection. Sources of financing are state budget, external donors, collected taxes and imposed sanctions.

The OP "Environment" has been prepared in full compliance with the partnership principle, actively involving all administrative and socio-economic partners, such as: representatives of line ministries, the National Statistical Institute, the National Association of Municipalities in Republic of Bulgaria, the Bulgarian Association of Municipal Environmental Experts, as well as representatives of Regional administrations, the Bulgarian Chamber of Commerce, the National Association of the Disadvantaged people, the environmental NGOs¹, the syndicates, the Bulgarian Academy of Science, etc.

-

¹ Annex 4 provides detailed information for the procedures for the election of environmental NGO representatives and their representation in the working group.

B. Ex-ante evaluation - conclusions and recommendations

The ex -ante evaluation of the OP "Environment 2007 – 2013" has been made in 2006. It has been carried out by independent consultants (DFC) selected through a competitive tender procedure and funded by Phare programme. The interim ex-ante evaluation report and the findings and conclusions there refer to the draft version of the OP "Environment" issued in May 2006. The main conclusion of the interim ex-ante evaluation report are presented in Point 3.7 of the report issued in July 2006 (available at www.moew.government.bg) and are as follows:

- The analysis of the current situation shows a number of weaknesses (described in section 3.3.1 of the report) that have to be overcome in order to improve the quality of the programming document. These include:
 - Lack of a short description in chapter A. (introduction) regarding the role, the responsibilities and the organizational structure of MOEW;
 - Lack of uniformity and consistency between the presentations of the different environment sub-sectors (e.g. in sub-sector water there is a comparison of indicators between Bulgaria and other EU countries, whether the same information is missing by the other sub-sectors);
 - Lack of some basic information regarding the socio-economic profile of the sector environment as a whole and its sub-sectors (e.g. contribution to GDP, employment rates etc.);
 - ♣ No reference regarding the total financial needs per each sub-sector;
 - No reference regarding previous achievements and lessons learned during financing of relevant interventions by the pre-accession funds (PHARE, ISPA, SAPARD etc.), in particular with relation to the implementation programmes of the requirements of key directives (i.e. 91/271 and 1999/31);
 - Lack of clarity and relevant information in all sub-sectors regarding roles, responsibilities and interfaces of the stakeholders;
 - Lack of explicit reference for what the OP actually supports in each sector and why;
 - Lack of clarity regarding Tables 4 and 5 (pp. 9-10) and the differences between them. The same is valid for Tables 6 and 7 (pp. 12-13);
 - Need for additional clarification regarding the typology of actions in Priority 3 (Biodiversity), e.g. by providing certain examples;

The general recommendation of the Consultant is that the missing information referred above to the analysis of the current situation should be complemented in a consistent and uniform manner in order to improve the quality of the analysis and the links with the SWOT analysis.

■ Both SWOT analyses (SWOT of the OPE and SWOT made by the Consultant) are mostly identical, except of some additional considerations made by the Consultant, especially regarding the formulation and presentation of weaknesses. Both SWOT analyses are considered as complete and relevant regarding mapping of the disparities, identification of needs and selection of the appropriate OP strategy. It should be pointed out that some fine tuning, regarding institutional, managerial and market issues were carried out during the 3rd project mission (September 2006) and the very final version of the SWOT will be included in the draft final report.

- Relevance of the proposed strategy and hierarchy of priorities were independently assessed by the project team, the WG of the OPE and the general public. Assessment results demonstrate that the proposed strategy is well fitted to the needs and broadly accepted. Allocation of financial resources is in line with the hierarchy of priorities.
- As a variant to the existing strategy of OPE, it should be proposed by the Consultant to incorporate the activities concerning construction of drinking water infrastructure within priority 1 of the OPE instead in the OP "Regional Development". By adopting this variant, all activities regarding the water sector will be concentrated in the OPE and the whole responsibility will be transferred to MOEW. Thus, an integrated water management enabling straightforward managerial schemes and increased accountability could be assured.
- In the first 2 priorities of the OPE, it seems, based on the typology of actions, that no care has been taken for strengthening the technical and managerial capacities of key Ministries and operators (municipalities, water supply and sewerage companies etc.). This omission could severely undermine the sustainability of the infrastructure. Therefore, the following are proposed:
 - Include in the actions of the first two priorities studies for assessing the technical and managerial needs and estimating the respective cost of training
 - Include in the actions of the first two priorities the above mentioned training activities and reserve the budget required for their implementation
- An additional risk concerning the second priority, as explicitly referred in the SWOT analysis, is the negative public attitude towards construction of waste treatment facilities. Therefore, it is proposed to carry out timely a public awareness campaign for highlighting the necessity of new modern and safe landfills and their benefits in comparison with the illegal dumpsites.
- The total internal coherence of the programme is high. Expressed in the adopted scale (1=min value, 5=max value), the total coherence index for the programme is equal to 3.57. According to the evaluation scale adopted, it means that all priorities are coherent to a more than satisfactory degree, with the majority of planned activities being important and often crucial for the others. In other terms the programme is not only coherent but well integrated.
- The total index of external coherence of the OP Environment is more than satisfactory (3.35), demonstrating a sufficient level of coordination with the other relevant plans/programmes and mostly positive mutual impacts. This is an important achievement since environment policies tend usually to conflict with economic and business development ones, especially in the field of large infrastructure development. Thus, It is not surprising that the lowest score refers to the coherence obtain for the coherence with OP Transports.
- In order to assure an acceptable trade-off between transport infrastructure on the one hand and environmental protection on the other hand, especially regarding NATURA 2000 areas, a close and constructive co-operation between the responsible Ministries for OP "Environment" and OP "Transport" is necessary. It should be proposed to establish and maintain this co-operation through the Project Selection Committee of OP "Environment" or by joint efforts of the responsible Managing Authorities. This co-operation is of crucial importance by the elaboration and approval of the Environmental Impact Assessments (EIA) of major transport infrastructure works.

The final report of the ex-ante evaluation has been issued at the end of 2006 (December 2006). The final report on the ex-ante evaluation is available at www.moew.government.bg. The Strategic Environmental Assessment is part of the ex-ante evaluation final report. The final ex-ante evaluation report and the findings and conclusions there refer to the draft version of the **OP** "Environment" issued in December 2006.

All recommendations made by the evaluation team within the ex-ante evaluation report have been accepted by the Managing Authority and the necessary corrections have been made within the text of the operational programme.

With regards to the evaluation and recommendations made for the "Analysis of the current situation" it should be noted that the above recommendations (as part of the interim report) were accepted by the MA, which complemented the OP. Thus, the OP includes all the additional information requested and no other proposals are made by the Consultant on this topic.

With regards to the evaluation and recommendations made for the "**SWOT analysis**" it should be noted that the additional considerations made by the Consultant were accepted by the MA and included in the OP. Moreover the clarity of the SWOT analysis is even more improved by grouping the analysis per sub-sector of the environment and keeping the general part, as shown in part D "SWOT analysis" of the present document, which represents the common actual SWOT analysis of the MA and the Consultant.

With regards to the evaluation and recommendations made for the "Strategic objectives and priority axes" of the OP it should be pointed out that the MA agreed with the considerations of the Consultant and in the latest version of the OP all activities regarding the water sector for the settlements above 2000 PE are under the responsibility of MOEW and OPE. Components related to construction, reconstruction and rehabilitation of water supply and sewage connections and sections, connecting the main networks to separate objects of economic and social infrastructure, fall within the scope of the priorities and operations of OP "Regional development". Moreover, actions for strengthening the technical and managerial capacities of key Ministries and operators are included in priority 4 of OPE.

With regards to the <u>assessment of the financial allocation</u> for the purposes of OPE the following minor modifications/amendments are proposed by the Consultant:

- Addition of a clear statement that, in the case of projects which generate revenues article 55 of Regulation EC 1084/2006 will be applied with regard to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.
- Addition of a table within part G "Financial Plan of OP "Environment 2007-2013" or as an annex to the OP including an indicative breakdown of total expenditure by category (Article 37 (d) of Regulation EC 1083/2006) by using the codes already defined in the OPE within each priority with regard to this proposal it should be pointed out that the MA considers as more appropriate to present such a table as annex to the OP

With regards to the <u>assessment of the quantification of the objectives</u> for the purposes of OPE the following changes are proposed by the Consultant:

■ To abate the indicators of the priority 4 (Technical assistance) since this priority is a "supportive" priority and not a "real" one and because it represents only about 2,6% of the

total OP budget – with regard to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.

- To abate the indicator "Number of waste projects" of the priority 2, since there is not relevant justification for it with regard to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.
- To use the indicator "Number of mapped zones" as output indicator and to use the following result indicator "Percentage of total NATURA 2000 area to be mapped" with regard to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.

Concerning the crucial importance of monitoring and evaluation indicators and relevant reports, the following amendments to the implementing provisions should be proposed by the Consultant:

- A clear statement that for monitoring and evaluation purposes, the respective output and result indicators of OPE shall be used, possibly along with proper financial indicators with regard to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.
- A clear statement that specific and practical guidelines for the calculation of the above mentioned indicators should be included in the MA and IB procedure manuals - with regard to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.
- A clear statement that the monitoring reports shall be in a standard form and the relevant templates should be included in the MA and IB procedure manuals. Especially for the monthly reports, it is proposed to keep the requested information by the Beneficiaries to a minimum in order not to add unnecessary work load to them with regard to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.

With regards to the <u>assessment of the evaluation provisions from the overall implementing</u> <u>provisions</u> for the purposes of OPE the following change is proposed by the Consultant:

■ the description in the implementing provisions regarding evaluation should be amended by stating the commitment to elaborate an Evaluation Plan and designate a Steering Committee for implementation and monitoring of this plan – with regards to this proposal it should be pointed out that the MA agreed with it and the necessary changes are incorporated in the OP.

With regards to the <u>administrative capacity of the MA</u> the following action is proposed by the Consultant:

■ Acceleration of the procedures for acquiring the additional staff (up to 25 persons) – with regards to this proposal actions have already been undertaken by the MOEW and the recruitment has started.

With regards to the <u>administrative capacity of the IB</u> and taking into account that the procurement workload of IB shall be increased considerably during the next two years, the following actions are proposed by the Consultant:

- Acceleration of the procedures for acquiring the first group of additional staff (19 persons), with particular emphasis to the staff with significant experience on public procurement and project preparation with regards to this proposal actions have already been undertaken by the MOEW and the recruitment has started.
- Acceleration of the procedures already in place (relevant working group is established) for elaboration of standard tender documents, including as far as possible technical specifications and standard drawings). Standard documents should rely on FIDIC contracts and take into account relevant standard documents of other EU countries (e.g. Germany) with regards to this proposal actions have already been taken by the MOEW and a working group is established within the Ministry of Finance (Bulgaria).

The Strategic Environmental Assessment (SEA) of operational programme "Environment 2007-2013" was conducted in compliance with the requirements of chapter six of Environmental Protection Act and Ordinance of the conditions and the order for implementing ecological assessments of plans and programmes (Prom. SG. 57/2 July 2004, effective from 1 July 2004, amend. SG. 3/10 January 2006) which reflect the requirements of the Directives 2001/42/EC. SEA is conducted as a part of the ex-ante evaluation of the programme, in compliance with the guidelines of the European Commission and the requirements of the competent authority in Republic of Bulgaria for Environmental assessment. In January 2006 the Managing Authority of operational programme "Environment 2007-2013" present a request for screening for the necessity of conducting an environmental assessment of the programme to "Preventative activity" Directorate in MOEW. On the basis of the presented documentation the Minster of Environment and Water issued a Decision, which stipulates that SEA shall be carried out for the programme, as a part of the of the ex-ante evaluation.

The preparation of the Environmental Assessment Report is done by the consultants of the ex-ante evaluation in the period July-December 2006. For the purposes of the Environmental Assessment consultations have been conducted in the framework of the working group for the preparation of OP "Environment 2007-2013", with the general public and the competent authority according to the scheme elaborated by the MA. Public access to the documentation has been ensured through the web-site of the MOEW and the Information Center of the ministry. The consultations included assessment of the needs for the sector "environment" and their compliance with the objectives and priority axes defined in the programme, as well as providing public assess to the Environmental Assessment Report. As a result of the received opinions during the consultations, the experts on environmental assessment concluded that the strategy within the frame of OP "Environment 2007-2013" is widely perceived and complies with the needs in the sector at significant level. The results of the consultations were duly reflected into the draft final report on Environmental Assessment from December 2006.

The main conclusion from the final report on SEA is that after incorporating of activities related to water supply as part of priority 1 of the operational programme (indicated as recommendation in the interim report on the ex-ante evaluation), the strategy of OP "Environment 2007-2013" is optimal and there are not any comparative alternatives to the strategy. The implementation of the programme will contribute to positive impact on the environment with benefits to the quality of life of the population and preservation and restoration of the biodiversity. Possible negative impacts of the programme implementation are temporary and measures for their reduction and prevention are proposed in the SEA.

In January 2007 the draft final report on Environmental Assessment is presented to the competent authority in MOEW for issuing SEA statement. In compliance with the requirements of *Ordinance of the conditions and the order for implementing ecological assessments of plans and programmes,* on behalf of the competent authority measures for monitoring and control over programme implementation were proposed and agreed by the MA. On 7th of February 2007 a meeting of the Inter-ministerial Committee – specialized membership to the Supreme Environmental Expert Council was held,

during which on the basis of the prepared SEA a Decision has been taken, which proposes to the Minister of Environment and Water to issue a statement for concordance of OP "Environment 2007-2013". Official statement on SEA of OP "Environment 2007-2013" – No 1 – 1/2007 was issued on 21.02.2007.

On the basis of SEA statement and in order to ensure prevention, reduction and the most possible elimination of the presumable negative impacts of programme implementation, the MA of OP "Environment 2007-2013" will apply the following measures:

- Projects, applying for financing from the operational programme, which require EIA/SEA shall be approved just after positive statement on EIA/SEA and taking into account the recommendation of the conducted assessment;
- During assessment of projects for priorities 1 and 2 the location of facilities shall be suitably defined, taking into account destinations to settlements, facilities subject to health protection, territories with significant environmental importance, benefits and costs;
- During the design of the facilities under priorities 1 and 2, the beneficiaries have to take into
 account the borders of the culture monuments and their protective areas, as well as all
 territories protected by specific law;
- In the implementation of the programme a priority shall be given to construction of WWTP in settlement with over 10000 PE, as well as to activities for reduction of water losses of the water supply network and for improvement of the quality of drinking water;
- With regard to projects concerning landfills the possibility for construction of facilities for pre-treatment before disposal shall be explore, with a view to the possibilities of utilisation of waste;
- During construction of facilities, within the frame of projects under the operational programme plans for minimization of negative impacts (noise, dust) shall be required and have to be implemented by the relevant contracting authorities (contractors).

With a view to ensure prevention, reduction and the most possible elimination of presumable negative impacts from the implementation of OP "Environment 2007-2013", the MA shall include the relevant measures from the SEA statement into the system of criteria for project selection and shall apply them during the process of assessment and selection of operations for financing. During conducting on-the-spot checks on the beneficiaries, the implementation of the above mentioned measures shall be taken into account.

Every three years from the programme implementation, not later than 15 April, the MA of OP "Environment 2007-2013" shall prepare a special report on monitoring and control over programme implementation, including measures for prevention, reduction and the most possible elimination of presumable negative impacts from the programme implementation. The monitoring and control on the environmental impact shall be performed on the basis of a set of indicators for environmental impact, included in the SEA statement, as follows:

• For Priority 1: quality of surface water; quality of underground water; quality of drinking water; quality of discharged waste water; quality of treated waste water; quality of non-treated wastewater;

- For Priority 2: municipal waste generated total; collected municipal waste; recycled municipal waste; treated waste according to the type of treatment composting, sorting and separation; recovery of municipal waste; capacity of landfills, in compliance with the legislative requirements; recovery of industrial and hazardous waste;
- For Priority 3: protected endangered species; protected zones of Birds' Directive; protected habitats; protected areas of Habitat Directive.

C. Analysis of current situation

The basic documents, guiding the environmental policy in Bulgaria are the National Environmental Strategy 2000-2006 and the National Environmental Strategy 2005-2014 as well as the respective national action plans.

The current analysis is prepared on the basis of the detailed survey undertaken of the sector environment for the purposes of the National Environmental Strategy 2005-2014. In addition, other national documents are used for the purposes of the current analysis, as for example: National Waste Management Programme 2003-2007; National Strategy for Management and Development of the Water Sector 2004 – 2015; the programmes for the implementation of the requirements of different "heavy" directives, elaborated in 2003, such as: 91/271/EEC concerning urban waste water treatment, 94/62/EC on packaging and packaging waste, 1999/31/EC on the landfill of waste, 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants, etc.

The analysis also encompases the main disparities with other EU member states with regard to some basic dimensions in the scope of the OP – waste water management and waste management.

The data used in the analysis is for the period 1999-2004, and where data from 2004 is missing, the data from 2003 is used. The main sources of data used are the National Statistical Institute, the Executive Environmental Agency within the Ministry of Environment and Water and EUROSTAT.

I. Water

1 Water supply and water consumption

Water resources formed at the territory of the country as a whole are sufficient to secure the normal water supply of the settlements. The total volume of water used amounts to 5 401 014 thousand m³ (2004) which constitutes 81% of the volume of water extracted for the same year, according to data from the National Statistical Institute. The basic part of the water resources extracted for use for 2004 are obtained from water sources owned by the economic sectors, while public water supply (i.e. the WSS companies) extract 15% of them (National Statistical Institute).

| Table 1: Water used | (1999 – 2004) | in thousand m ³ |
|---------------------|---------------|----------------------------|
|---------------------|---------------|----------------------------|

| Water used (indicators) | 1999 | 2000 | 2001 | 2002 | 2003 | 20042 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|
| Agriculture, hunting and forestry (incl. fisheries) | 124 715 | 234 738 | 184 828 | 157 853 | 184 887 | 171 176 |
| Industrial sector | 5 367 033 | 4 177 697 | 4 426 815 | 5 265 269 | 5 282 157 | 4 893 085 |
| Household sector | 396 680 | 404 749 | 372 937 | 337 472 | 342 626 | 336 752 |
| TOTAL water used – gross | 5 888 428 | 4 817 184 | 4 984 580 | 5 760 594 | 5 809 670 | 5 401 014 |

In Bulgaria there is a well developed *water supply system* that secures water to 5031 settlements, and covers 98.8% of the population of the country (2004). The proportion of the population that is

_

² All data for 2004 presented in the tables is preliminary.

served by DWTP is 42.9% in 2004 (NSI data). However, one of the main problems in the water supply sector for many regions in the country is the regime in water supply caused by the internal losses in the distribution networks and the lack of water reservoirs.

Water consumption in the country is comparatively low. For 2004 the water consumed by the population per capital is 94 (l/h/day) which is less compared to the EC (15) - 150 (l/h/day) as per NSI. However, the volume of the extracted water is nearly twice larger in comparison with other countries. This is caused to a great extend by the amortized water supply network, which at some places requires complete rehabilitation.

During the last years *water losses* during transportation to the final consumers is between 40% - 79% (average 59.5%) depending on the age, type of the pipes and the pressure in the network. In 2004 the water losses during transportation to the final consumers are on average 51.6% of the water received. For the period 1980 – 2001 the percentage of the efficiently used water decreases from 84.90% to 38.95%. The basic actions, which are necessary to be undertaken in order to reduce the water losses, are connected with the purchase of devices and appliances for detection of leakages, reconstruction at stages of the distribution water-supply network and water-supply system connections and elaboration of projects for efficient control on water losses.

As a whole, the **water quality** in the country is good, except in specific regions, which are facing problems of a local character. The quality of drinking water supplied for the population is regulated according to the requirements of Decree No.9/16.03.2001. The basic pollutants of the surface water are the domestic-faecal water from the urban sewerage system in the big settlements and the industrial waste water which is discharged untreated into the rivers.

The basic pollutant of underground water in all river basin districts are the nitrates. For the period 1997 – 2004 a progress was achieved with regards to the removal of the pesticides, which is due to the measures undertaken for to the liquidation of the old stores with pesticides in the country.

For the purpose of reflecting the requirements of EU Directives towards the drinking water, in 2002 a National programme for priority construction of drinking water treatment plants (DWTP) and the related water-supply infrastructure as well as the Strategy for management and development of the water-supply and sewerage systems sectors in the country were elaborated. The Strategy is approved by the Council of Ministers on March 18, 2004. According to it, the status of the infrastructure assets in the water-supply sector is as follows:

- Total length of the water-supply network 70,620 km.
- 15 dams with total capacity of 1,158.4 millions m³.
- 3,560 pumping stations for water-supply.
- 42 constructed DWTP with total productivity of 480,506.000 m³/yearly. (15.24 m³/weekly.);
- 6,087 reservoirs for drinking water with total capacity of 2,613,735 m³;

2 Sewerage systems

In relation to the level of construction of **sewerage network** and urban wastewater treatment plants (UWWTP) in the settlements, the country is lagging behind in comparison with the water-supply networks. The number of the settlements with sewerage networks is 277 in the country, 167 of them being towns and 100 - villages. Approximately 95.0% of the towns in the country have sewerage

networks constructed, but concerning the villages this percentage hardly reaches 9% (NSI data 2004).

In 2005 (MOEW data) there are 68 **UWWTP** constructed up to now in the country, 14 of them being only with mechanical treatment and the remaining 54 – with biological treatment. They serve 71 agglomerations including 54 settlements with 3 342 075 inhabitants. The total number of the PE served is 5 648 184. The efficiency of the UWWTP remains low (in 2004 they operate with 53% of their design capacity) mainly due to incomplete or not constructed sewerage systems.

In 2004 (National Statistical Institute data), 69.2% of the **population is connected to sewerage networks**, which is an increase of only 2.2 % compared to 2000. During the same year (2004), 40.5 % of the population of the country was connected to waste water treatment plants, which is an increase of 3.4% compared to 2000.

For 2003 - 2004 (Table 2) a significant increase in the total volume of the generated waste water can be observed. This is a result of the rapid development of the industrial sector due to the completion of the restructuring of the industry and the economic growth of the country during the last years.

Table 2: Generated waste waters in thousand m³

| Generated waste water (indicators) | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|------------------------------------|---------|---------|---------|---------|---------|---------|
| In agriculture | 10 156 | 5 572 | 5 090 | 3 442 | 3 172 | 3 172 |
| In industry | 377 265 | 328 497 | 274 475 | 225 023 | 666 142 | 657 812 |
| In households | 300 463 | 304 679 | 277 273 | 257 789 | 269 344 | 260 973 |
| TOTAL generated waste water | 687 884 | 638 748 | 556 838 | 486 254 | 938 658 | 921 958 |

Source: National Statistical Institute

The total **quantity of waste water discharged** increases with about 63% in 2003-2004 compared to 2002 (Table 3). The increase of the waste water treated in UWWTP is due to the construction of new/modernization of old UWWTP during the last four years.

Table 3: Waste water discharged in thousand m3

| Waste water discharged (indicators) | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|--|---------|---------|---------|---------|-----------|-----------|
| TOTAL waste water discharged ³ | 955 320 | 878 576 | 785 219 | 746 446 | 1 193 984 | 1 191 908 |
| Treated | 605 169 | 550 326 | 488 490 | 516 834 | 950 730 | 943 499 |
| Untreated | 350 151 | 328 250 | 296 729 | 229 613 | 243 254 | 248 409 |
| Percentage ratio of treated water from the total annual base | 63,35% | 62,64% | 62,21% | 69,24% | 79,63% | 79,15% |
| Percentage ratio of untreated water from the total annual base | 36,65% | 37,36% | 37,79% | 30,76% | 20,37% | 20,84% |

Source: National Statistical Institute

_

³ The difference between the total waste water discharged and the total waste water generated represents the amount of the rain water that enters the sewage systems

3 National Water Monitoring System

The National Water Monitoring System (NWMS) consists of the national networks for monitoring of rainfall and surface water (253 monitoring and measurement stations), for groundwater monitoring (212 hydrogeological stations) and seawater monitoring (23 coastal sea stations), and for biological monitoring (1157 stations). A total of 111 stations from surface water monitoring network, as well as 73 stations from groundwater monitoring network are included in the European monitoring network (EUROWATERNET) of the European Environment Agency.

4 Legislation and institutional framework in the sector

The Environmental Protection Act and the Water Act are the main legislative acts which regulate the water management. The EPA and the WA encompasses the basic principles of effective environmental policy, such as "polluter pays", "public awareness regarding the state of the environment", "shared responsibility", "preventive action (control)", "integrated management". The Water Act that is currently in force, along with the State Property Act and the Municipal Property Act, includes the basic principles and defines the ownership of the water supply and sewerage infrastructure. In August 2006 the National Assembly of Republic of Bulgaria approved an Act for amendment of the Water Act which completely introduced the application of the river basin management principle and the requirements of the Water Framework Directive 2000/60/EC into the national legislation. According to the Water Act, the water within the territory of the Republic of Bulgaria is managed as a national indivisible natural resource. The water management is carried out on a national level and on a river basin level. According to the Water Act "water management" includes the activities for water usage, protection and restoration as well as the activities for prevention of the harmful impact of the water.

The water management policy on national level is implemented by the Ministry of Environment and Water, which is responsible for the management of water resources and their distribution among the consumers. The Ministry is the competent authority responsible also for the following main areas:

- development of the national policy for water management, as well as the drafting of national legislation in the area of water protection, including pollution by urban wastewater;
- approval of river basin management plans;
- issuing permits for water use and permits for discharge of treated waste water into the respective water body;
- preparation of annual report on the environmental situation, including water, with the aim of providing information to the public.

The river basins are the basic units for the integrated water management. There are four river basin districts in the country that are designated according to the natural situations of watersheds dividing the drainage areas of one or several major rivers within the territory of the country. The defined river basins do not conform with the administrative divisions of Bulgaria. For these districts 4 River Basin Management Directorates are established within the structure of MOEW and these are the bodies that implement the water management policy on local level.

The River Basin Management Directorates perform the following main functions:

 organizing the development of river basin management plans and conducting public discussion of these plans;

- jointly with the municipalities defining the boundaries of waters and water bodies, constituting public state property;
- issuing permits for discharge of waste water, keep registers and controlling the observance of the terms and requirements of the issued permits;
- maintaining the National System for Water Monitoring at basin level;
- organizing and managing the collection and control of the results from the internal monitoring of the enterprises;
- updating the controlling-information system for the condition of the wastewater; developing measures for improvement, protection and maintenance of the water conditions;

The River Basin Management Directorates participate in the regional, municipal or district spatial development councils. They prepare and present written opinions on investment projects for development, reconstruction or rehabilitation of the water-supply and sewage networks and systems, including treatment plants for drinking water and for waste water.

The Regional Inspectorates on Environment and Water (15) under the Ministry of Environment and Water ensure the state environmental policy at regional level and perform monitoring and controlling functions in reference to the fulfilment of the requirements under permits for waste water discharge issued by the River Basin Directorates. The Inspectorates control the emergency releases of waste water and maintain a database on the monitoring and control concerning the condition of waste water.

The Executive Environmental Agency under the MOEW organizes and guides the national system for surface waters monitoring and controls quality of water by physical and chemical parameters through mobile laboratories.

Pursuant to the Water Act currently in force, the remaining competent authorities are as follows:

- Ministry of Regional Development and Public Works responsible for the water-supply and sewer systems and facilities in settlements and for protection against water-related damage and loss within the limits of nucleated settlements;. The Minister of Regional development and public works exercises the rights of state ownership in the water companies wherein the state holds a share of the capital exceeding 50%.
- Ministry of Agriculture and Food Supply responsible for irrigation and land-reclamation systems and facilities and for protection against water-related damage and loss beyond the boundaries of settlements;
- Ministry of Economy and Energy for hydro-energy systems and facilities;
- **Ministry of Health** responsible for the exercise of monitoring and control on the quality of drinking water.
- The (commercial) water supply and sewage companies (WSSC) that operate the facilities.

The **municipal administrations** play an important role in the implementation of the environmental policy in the water sector. Their basic tasks are related to:

development of programmes for protection of the environment;

- construction, maintenance and operation of UWWTP;
- providing public information regarding the state of the environment;
- control on the implementation of the legal requirements in small facilities of local importance

Currently the ownership of the water management systems and facilities is regulated by the Water Act. The entire infrastructure for water supply and sewerage in the settlements, constructed before 1998 represents corporate property of the water companies. The infrastructure constructed after 1998 is owned by the municipalities. According to the National Strategy for Management and Development of the Water Sector 2004 – 2015 (adopted by the Council of Ministers in 2004) the ownership of the water management systems and facilities shall be regulated in separate legislative acts which are currently under preparation by the Ministry of Regional Development and Public Works.

Water supply and sewage companies (WSSC) are responsible for the activities related to the operation and maintenance of water supply facilities (at the sources of drinking water, drinking water treatment plants, pumping stations, water reservoirs and water supply network) and the sewerage networks (for waste water collection, treatment and discharge). There are 49 WSSC in the country. Twenty nine of them are regionally based, delivering services to a specific district center and several municipalities. The rest of the companies are providing services in a single municipal area.

The ownership of the WSSC is as follows:

- 16 WSSC companies with mixed property 51% state and 49% municipal share of the company's capital;
- 13 WSSC companies with 100% state share of the capital;
- 20 WSSC companies with 100% municipal share of the capital.

The basic principle for formulating the price of the water supply and sewage services is the establishment of price levels that will offer the opportunity for a full coverage of operational costs. Profitability of up to 12% is calculated to the costs. For some companies the percentage of profitability is different for the households and for the legal entities. The elements included in this expenditure section comprise only tax-eligible expenditure and do not include investment costs other than depreciation. Investments are most often provided by governmental authorities in the form of subsidies. The price of water supply and sewerage services is determined on the basis of the costs estimated for 1 m³ of water. They are calculated as a ratio between the overall costs and the forecasted volume of water to be sold for the respective period. Due to the various parameters used in determining the tariffs, each WSSC applies different tariffs for delivering water supply and sewerage services.

Since 2005, the price policy of the WSSC is regulated by the adopted **Water Supply and Sewerage Services Regulation Act.** The Act establishes the legal basis for the regulation of prices, accessibility and quality of water supply and sewerage services provided by the water supply and sewerage companies, which operate the facilities. It defines the drinking water as a basic necessity of life and the activities for water-supply and sewerage services as activities of public interest.

A State Energy and Water Regulatory Commission to the Council of Ministers (under the Water Supply and Sewerage Services Regulation Act) regulates the water supply and sewerage services. The Commission regulates the prices and the quality of water-supply and sewerage services

provided by the WSSC, regardless of the forms of ownership and management of the water-supply and sewerage systems. The Commission approves the general conditions of the contracts for provision of water supply and sewerage services to consumers, exercises control and imposes sanctions, keeps a register of the contracts commissioning the provision of water supply and sewerage services. The WSSC prepare business plans that are presented for approval by the Commission and these are mandatory after their approval. Prior opinion of the relevant municipalities on the presented business plans is required. The control on the implementation of the business plans is performed by the Commission.

During the negotiations for accession to the EU, transition periods for the **implementation of the requirements of Directive 91/271/EEC** concerning urban wastewater treatment have been agreed. One of the main challenges to be faced by the country in the period 2007-2013 is fulfillment of the commitments under transitional periods, with regard to:

- Construction of sewerage networks and urban waste water treatment plants in the settlements with more than 10 000 PE by 31.12.2010;
- Construction of sewerage networks and urban waste water treatment plants in the settlements with **PE between 2 000 and 10 000 by 31.12.2014**.

For the purposes of implementation of Directive 91/271/EEC, National programme for priority construction of urban waste water treatment plants was developed by the Ministry of Environment and Water, which aims at setting priorities for construction of UWWTP at watersheds for all settlements in the country with more than 10 000 PE.

The legislation in the country also introduces economic instruments, which regulate and guide the conduct of the water users and water bodies. The following economic instruments - consumer fees, fees for use of resources, concessions for natural resources, sanctions and market mechanisms ensuring investment and operational costs for achieving and maintaining the environmental standards - are effectively applied.

II. Waste

1 Waste generation

During the period 2001 – 2004 the average *total quantities of the waste generated* in the country is about 13 450 thousand tones. During this period the quantities of the waste generated increase as a whole, and in 2004 the increase is with 7.3% compared to 2003. This is mainly due to the growth of the quantity of the industrial waste (as a result of the increased economic activity) which represents about 70% of the total waste generated. For the same period the quantities of the generated municipal and hazardous waste are decreasing. The municipal waste is about 25% of the total quantity of waste generated and the remaining 5% are hazardous waste.

Table 4: Quantity of waste generated (in thousands of tonnes)

| Indicator | | Average | | | |
|----------------------------|-------|---------|-------|--------|----------|
| maieutoi | 2001 | 2002 | 2003 | 20044 | quantity |
| Municipal waste generated | 4 003 | 3 945 | 3 916 | 3 673 | 3 884 |
| Industrial waste generated | 8 184 | 8 010 | 9 113 | 10 462 | 8 942 |

⁴ All data for 2004 presented in the tables is preliminary.

20

| Hazardous waste generated | 756 | 611 | 626 | 526 | 630 |
|---------------------------|--------|--------|--------|--------|--------|
| Total waste generated | 12 943 | 12 566 | 13 655 | 14 661 | 13 456 |

Source: National Statistical Institute

For the period 2000 – 2004 a decreasing tendency in the quantity of the *municipal waste* collected is observed, although the share of the population served increased with 6%.

The accumulation rate of municipal solid waste of 472 kg. for 2004 is below the average value of 537 kg. for the EU (25) and significantly lower than the average value of 580⁵ kg for EU (15). In 2004 (Table 5) 3 092 thousand tonnes of municipal waste are collected in total, which is with 4% less compared to 2003.

Table 5: Municipal (household) waste in Bulgaria

| Indicator | Measure | | Average | | | | |
|---|-------------------------|------|---------|------|------|-------|----------|
| | | 2000 | 2001 | 2002 | 2003 | 2004 | quantity |
| Total quantity of municipal waste collected | thousand tonnes/year | 3318 | 3211 | 3199 | 3209 | 3 092 | 3207 |
| Proportion of population served by waste collection | percentage | 78,6 | 80.2 | 81.1 | 82.0 | 84.2 | 81,22 |
| Accumulation rate of municipal solid waste | kg/capita/year | 518 | 505 | 503 | 502 | 472 | 500 |

Source: National Statistical Institute and EEA

For the period 2000 – 2004 the total quantities of generated *industrial and hazardous waste* are relatively constant. The average annual quantity of the generated hazardous waste for the period is 630 thousand tonnes, with a decreasing tendency as from 2000. In 2004 526 thousand tonnes of *hazardous waste* are generated which is about 16% less compared to 2003. In 2004 the waste from thermal processes (71%), and construction and demolition waste (10%) prevail in the total quantity of industrial and hazardous waste generated, followed by the waste from inorganic processes (9%). The energy sector is the biggest generator of industrial and hazardous waste, followed by the processing industry.

The management of *stocks of obsolete pesticides* is regulated by the National Waste Management Act. The safe storage of obsolete pesticides is conducted by (1) repairs (rehabilitation) of storage facilities and (2) storage in BB-cubes (reinforced steal concrete containers). With assistance from the state budget from 2001 to 2006 the number of storage facilities containing stocks of obsolete pesticides has diminished from 772 to 492 and the number of BB-cubes has grown respectively from 468 to 1588 BB-cubes. By the end of 2006 69.5% of the inventoried in 1997 storage of obsolete pesticides have been rehabilitated (repaired) or removed into BB-cubes.

In 2004 the initial data for the management of waste from sludge generated by the treatment of waste water is collected and analyzed. The total quantity of the generated sludge for 2004 is 406 thousand tonnes, half of which is classified as hazardous waste and the remaining half as non-hazardous waste. In 2004, 87% of the sludge from the large WWTP are landfilled, 12% of them being in a temporary storage and hardly 1% being used for recultivation of damaged sites. Currently, large quantities of the waste water incoming in WWTP are from the industrial enterprises, which aggravates the quality of the sludge and respectively decreases the share of them suitable for use in agriculture.

-

⁵ Data from European Environmental Agency for 2004.

During the period 1999 – 2002 there is a decreasing tendency of the overall quantity of the *generated waste from the extraction and primary treatment of mineral resources*, a consequence from the restructuring of the mining industry and the decommissioning of unprofitable operations. In 2004 the quantity of the generated waste from the extraction and treatment of mineral resources is 71 300 thousand tonnes, which is with 5.2% lower, compared to 2003. The main share of the waste generated in 2004 comes from the ore extraction and the extraction of energy resources, 74% and 15% respectively of the total quantity of waste generated.

Rehabilitation measures regarding the *closed mines and the mining waste* located on them are implemented according to the following 3 decrees of the Council of Ministers: (1) Decree № 74/28.03.1998, (2) Decree №140/23.07.1992 and (3) Decree №195/2000. By the end of 2005 the ratio *existing : rehabilitated* terrains pursuant to Decree № 74/28.03.1998 is 1:1 and pursuant to Decree №140/23.07.1992 is 3:1. For measures related to Decree №195/2000 have been spent 7 176 317 BGN from 2000-2004. In addition, 280 million BGN from the state budget have been spent for programmes for recovery of past environmental damages in privatized mining enterprises.

2 Waste collection (including separate waste collection)

By the end of 2004 84.2% of the population of the country was covered by the organized *municipal waste* collection system, which is with 5.6% more in comparison with 2000. In 2004, the operating systems for organized collection and transportation of municipal waste serve 1801 settlements, with population of 6 551 181 inhabitants (i.e. 84% of the population of the country). In the cities the organized waste collection system covers almost 100% of the population, but in the villages the population served is slightly under 40%.

Until 2003 the collection of *waste for recycling* was undertaken in accordance with the current market demand and was limited only to waste for which the expenditures for collection, separation and transportation are less than the market price of the materials collected, which is paid by the final manufacturers.

Since 2004, MOEW has started to finance the municipal systems for separate collection of *packaging waste*. In 2004 pilot projects are funded in 12 municipalities. During the second half of 2004 four organizations for recovery of packaging waste were licensed. In 2004 the overall quantity of packages released to the market is 446 thousand tonnes. The generated packaging waste is distributed among the households and the business sector in an approximate ratio of 59% to 41%. The consumption of packages per capita in 2004 is 57,47 kg/c/y (157 g/c/d). Compared to the other European countries these quantities are low, which is in close relation to the level of consumption in the country.

The collection of *hazardous waste* for recycling is limited to the buy-back of lead-acid batteries, spent oils and waste petroleum products. The system for collection of some groups of specific hazardous waste streams as luminescent tubes, batteries, small chemical waste, etc is not complete.

3 Waste recovery and disposal

Data for 370 installations and facilities for waste recovery and disposal are registered and maintained in the country (by EEA). These are facilities which have the capacity to recover or dispose waste received form other enterprises. There is a trend of increasing the share of waste delivered for recovery to the total generated waste, which is related to the fact that installations for reuse and recycling of waste are put into operation of. Metal-containing hazardous waste as aluminum slag, lead slag, zinc ash, zinc sludge, spent lead-acid accumulators and waste oils are most often delivered

for recovery. For 2004 the overall quantity of recovered waste in the country is 2175 thousand tonnes.

3.1 Installations and facilities for incineration and co-incineration

The incineration of waste is not a common practice in the country. At present, there are no installations for incineration of *municipal waste* constructed.

During the period 2000-2004 the industrial waste disposed through incineration on average amounts to around 0.46% of the overall quantity of generated industrial waste, and in 2004 its quantity amounts to 42 kilo-tonnes.

The incineration as a method for disposal is typical for the *waste from medical establishments*. In 2004 approximately 1810 tonnes of waste from medical establishments are disposed in the two incinerators for hazardous waste from medical establishments (in Sofia), which meet the requirements of the legislation in the area of waste management. Furthermore, other smaller facilities for thermal waste treatment from medical establishments are also in operation in the country. The overall capacity of the thermal waste treatment from medical establishments in the country is 4142 t/y.

Sludge from WWTP containing oils and petroleum products is disposed in the installations for incineration of "Lukoil Neftohim – Bourgas". The incineration installations of Varna Port receive for disposal *mixed municipal waste, discharged from the entering ships*.

Green and wood waste are burned in steam-boilers with solid fuel. The typical industrial waste from the wood processing industry is used mainly as fuel (91%), and hardly 3% is pressed into briquettes, and 6% is composted.

Co- incineration is undertaken in industrial burning installations in 5 cement plants – the overall quantity of waste with energy recovery in them is 2 602 tonnes.

The cement plants "Zlatna Panega Cement" and "Devnya Cement" provide a major contribution to the disposal of *non-organic waste* (especially from group 10). The overall quantity of waste disposed in this way is 519 thousand of tonnes.

3.2 Installation and facilities for mechanical treatment

The mechanical treatment of waste in most of the cases is important as a pretreatment, preceding the recovery or the final disposal. The facilities are balling systems, briquette installations, mills and separators. Transfer stations and sorting stream lines exist in some of the landfills, but only in few municipalities. These facilities treat mixed municipal waste, which represents a big percentage of the overall amount of waste. The total amount of all other recyclable waste, such as plastics, glass, wood and textile fabrics, is only about 2% of the mechanically treated waste. The preliminary treatment of biodegradable waste, which is the first step of the strategy for reduction of the quantities landfilled is slightly developed. In the area of hazardous waste disposal there are two installations in operation, constructed at the end of the 80s. In 2004, about 9% of the hazardous waste is disposed through chemical methods and incineration.

In the ISPA Strategy fro 2000 – 2006 the country has envisaged the construction of **National Center for treatment of hazardous waste** (coming from municipalities and small generators of hazardous waste). Due to a number of different reasons the project was not implemented with ISPA financing. In 2006 the Government approved the National Infrastructure Strategy 2006-2015.

According to it, when deciding on the implementation of the National Center for treatment of hazardous waste project, the mechanisms for more complete enforcement of the main EU principles "polluter pays" and "producer's responsibility" that are introduced with the Waste Management Act need to be considered, especially in the light of the limited state financial resources. The implementation of the public-private partnership is encouraged in this strategy.

3.3 Installations and facilities for physical and chemical treatment

The physical and chemical treatment is applied mainly for the metal containing waste (about 90%), as well as for the treatment of waste from petroleum products, treatment of industrial waste water and spent galvanic liquids, disposal of accumulators, etc. Lately, there is an interest for disposal of vegetable oils used in the household and the bio-dizel produced from them. There are quotas established for this kind of "eco-fuel". In the country, there is such an installation operating with the capacity of over 10 tonnes/per year. In 2004 data from 45 facilities with physical and chemical treatment is received.

3. 4 Installations for recycling

The total capacity for recycling of *paper and cardboard waste* is estimated at about 200 thousand tonnes. The main processing facilities in the country are the enterprises from the pulp and paper industry, as well as the plants producing construction panels. In 2004 about 82 thousand tonnes of paper are recycled in the recycling installations for waste paper.

The processing of *plastic waste* is concentrated in three major plants in the country with a capacity of about 12 000 tonnes per year. The actual quantities of processed waste are considerably lower than the potential and processing is entirely geared towards foil materials in quantities of about 5400–7200 tones/year. An installation for recycling of PET waste with a capacity of 12 000 tons/year was put in operation in 2004.

Waste glass is processed in 6 plants in the country. The annual quantity of processed glass waste is around 15 000 tonnes/year. The necessary infrastructure for sorting, separation and processing of glass waste does not exist in the country. In 2004 in the installations for recycling of waste glass are recycled about 33,5 thousand tonnes of glass.

Technical infrastructure for treatment of *waste from accumulators* is established in Bulgaria. In 3 enterprises there are installations for treatment of waste from accumulators and their capacity is about 23 000 tonnes per year. Their capacity is sufficient to ensure the processing of the waste collected in the country. Two technological lines for processing of *spent tires* were opened in 2003 and they have a total capacity of 4 tonnes/hour. There is only one plant licensed to regenerated *waste oils*. The existing capacity there (5000 tonnes) does not allow for the recycling of the entire quantity of this type of waste.

Recycling becomes a preferred method for treatment of packaging waste and covers 23% of the overall quantity for 2004, according to data from the final manufacturers. In 2004 a total of 101 651 tonnes of *packaging waste* are treated, of which 100 610 tonnes are recycled, 47 tonnes are energy recovered and 995 tonnes are landfilled. At the end of 2004, there are 177 stations for separate collection of packaging waste, 98 stations for separate collection of unusable accumulators, 12 stations for separate collection of waste oils and 20 stations for separate collection of end-of-life electrical and electronic equipment, including luminescent tubes and other tubes containing mercury. **Composting** and **incineration of waste with energy recovery** are not yet a widely spread practice in the country.

4 Landfilling

Waste landfilling remains the only method for treatment of municipal waste in the country and a basic method for all other types of waste. In 2004, 86.5% of the total quantity of generated waste is landfilled (**Table 6**).

Table 6: Quantities of waste deposited in the period 1999 –2004 in thousand tones.

| Indicator | Measure - | | | Ye | ear | | |
|--------------------------------|----------------------------|------|------|------|------|------|------|
| Indicator | Measure | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Municipal waste | thousand tonnes | 3197 | 3318 | 3211 | 3199 | 3209 | 3092 |
| Construction waste | thousand m ³ | 1009 | 651 | 650 | 600 | 773 | 732 |
| Industrial non-hazardous waste | thousand tonnes | 7120 | 7558 | 7451 | 7225 | 8212 | 7511 |
| Hazardous waste | thousand tonnes | 517 | 478 | 517 | 346 | 296 | 316 |

Source: National Statistical Institute for municipal, construction and industrial waste, EEA for hazardous waste

According to NSI data (2004), there are 663 landfills for municipal waste, which cover 780 ha. and where 3 092 thousand tonnes of municipal waste are landfilled. Fifty-nine (59) of these landfills serve settlements with a population of over 20 000 inhabitants, which is approximately 70% of the population in the country. By 2004, in 110 landfills there is control of the waste at the entry. Most of the landfills for household waste do not meet the current requirements, with the exception of the landfills constructed, reconstructed, modernized and put into operation after 1997.

According to the commitments that Republic of Bulgaria has undertaken with regards to Directive 1999/31/EC, by 16.07.2009, a system of a total of 54 facilities (regional landfills) should be established in the country, which requires reconstruction of the existing and construction of new regional landfills for disposal of the total quantity of municipal waste generated in the country. Gradually, within the same timeframe and in parallel with the commissioning of the respective regional landfills, all existing landfills for municipal waste that do not meet the legal requirements and the current technical standards will be decommissioned and closed. By the end of 2004, 20 of the envisaged regional landfills for municipal waste were constructed and put into operation, 12 are under construction, and the remaining are at different stages of preparation for construction.

Currently, there are 74⁶ *landfills for industrial non-hazardous waste* in the country that are in operation (another 10 are already decommissioned). For the period 2000-2004, an average amount of 87% of industrial waste has been treated through landfilling. For 2004, 72% of the quantity of generated industrial waste is landfilled. Currently, in the country there are 18 landfills under operation where *hazardous waste* is disposed of and none of them meets the legislative requirements. The existing landfills are fully operated by the enterprises generating the waste. There is no facility for landfilling the hazardous waste in the country that operates on a commercial basis. During the period 2000-2004 about 60% of the total quantity of generated hazardous waste is landfilled. The average annual amount of hazardous waste landfilled is 390 thousand of tonnes. In 2004, about 316 kilo tonnes of hazardous waste are landfilled, which is 8% more compared to 2003.

25

⁶ The total number of landfills does not include the facilities for disposal of waste from the exploration, extraction and treatment of mineral resources and the sites for backfilling of pits in open mines for lignite coal with ashes from coal burning.

5 Legislation and institutional framework in the sector

The Environmental Protection Act (EPA) and the Waste Management Act (WMA) and the Act for ratification of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, along with the relevant secondary legislation represent the main legislative acts in the field of waste management in Bulgaria. The EPA sets the principles for protection of environmental components – such as "sustainable development", "priority of prevention preceding disposal", "polluter pays" and the integration of the environmental protection policy in the sectoral and regional policies.

The WMA regulates the environmentally-friendly waste management as a system of rights, responsibilities, decisions, activities and actions referring to the waste generation and treatment and addressees the household, industrial, hazardous and construction waste. Furthermore, the WMA sets the hierarchy of waste management: prevention, utilization (recycling, reuse and/or extraction of secondary raw materials and energy recovery from waste whereof the formation cannot be prevented) and disposal.

In 2003 the National Waste Management Programme (NWMP) for the period 2003 – 2007 was developed. The objectives and priorities set within its framework for all areas of waste management are to ensure the implementation of an integrated and effective waste management system at all levels. The NWMP shall be revised in 2007 and the new programme is envisaged to cover the period 2008-2013.

During the negotiation process for the country's accession to the EU the following transition periods under several implementation programmes have been agreed:

- For Directive 94/62/EC, amended by Directive 2004/12/EC:
 - 4 2 years (i.e. by 31.12.2008 r.) for the requirement of 60% recycling rate for paper; 50% recycling rate for metals, and 15% recycling rate for wood;
 - 4 6 years (i.e. by 31.12.2014) for 60% utilization of waste and 55 80% recycling rate for packaging waste.
 - 5 years (i.e. by 31.12.2013) for 22,5% recycling rate of plastics and 60% recycling rate of glass.
- For Directive 2002/95/EC and 2002/96/EC, amended by Directive 2003/108/EC:
 - ♣ 2 years (i.e. by 31.12.2008 r.) for achieving targets for separate collection and reuse/recycling at the rate of 4 kg/inh./year
- For Directive 99/31/EC:
 - * 8 years (i.e. by 31.12.2014) for 14 installations, concerning prohibition for landfilling of liquid waste.
- For Regulation 259/93/EEC:
 - **3** years (i.e. by 31.12.2009) for import of certain types of waste from the "yellow" list and not mentioned in a list for the purposes of recovery.

Bulgaria has ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and actively participates in the meetings of the parties to the convention and the activities of the working groups.

Pursuant to the WMA, the costs for waste collection, transport, utilization and disposal are to be borne by the owners and producers of waste, which implies the "polluter pays" principle and "producer's responsibility". The municipal administrations lay down further detailed municipal regulations on deposition, collection (incl. separate collection), transportation, transferring, treatment and recovery of municipal and construction waste and specific waste streams that are to be implemented by the producers and owners of waste on municipal territory. The above regulations also determine the amount and payment procedure for the local fees for supplying the respective services.

Pursuant to Art. 58 of EPA persons undertaking activities referring to production or treatment of waste have to ensure their processing, recovery and disposal in the right hierarchy (Art. 4 WMA). WMA distinguishes 4 general groups of "owners" or "producers" of waste. These are (1) the households, (2) the industry, (3) the producers/importers of products, generating waste such as packaging and (4) the state (a specific group) as responsible for past contaminations. These groups are described in the following part.

According to the national legislation, the municipalities are responsible for the development of municipal waste management programmes with a scope determined by the Waste Management Act. The specific requirements for waste management at local level are introduced by the municipal regulations laying down the procedure and terms for dumping, collection, incl. separate collection, transportation, transferring, treatment and recovery of municipal and construction waste and specific waste streams. The municipalities are also responsible for the selection of the landfill's site(s) and for the delivery of necessary facilities for waste collection and treatment.

With a view of the application of the "polluter pays" principle, the municipal councils in the country determine the amount of the "municipal waste" fee within the limits envisaged in the Local Taxes and Charges Act. The annual amount of the fee is determined with a decision of the municipal council for each settlement in the country.

The households as a group of waste "producers"/"owners" as identified by WMA: This group has to follow the municipality's council regulation and ordinances of the Mayor on separate disposition of waste. As a rule, the Mayor signs a contract with an economic operator in possession of a license for undertaking waste management activities. Households can additionally dispose waste such as plastic, paper, batteries, luminescent lamp, end used vehicles on their own to the designated by the Mayor sites. Households are charged with municipal tax "household waste" for services provided by the municipality. The size of this tax is very low due to social reasoning.

The industry as a group of waste "producers"/"owners" as identified by WMA: This group has to submit a program for treatment and disposal of quantity and types of waste, produced by its activities. The industry can sign a contract with specialized operators for waste management, when unable to fulfill their obligations on their own. The implementation of this program is observed by the RIEW and if not fulfilled in compliance with environmental legislation, the RIEP/MOEW imposes a sanction on the producer and he is obliged to make a payment to EMEPA.

The producers/importers as a group of waste "producers"/"owners" as identified by WMA: Pursuant to the WMA, the producers and importers of products which, after use, generate specific waste streams are responsible for organizing the collection, recovery and/or treatment of waste from these products. In order to fulfill their obligations the producers and importers can choose between two alternatives:

- when such products are placed on the market, the generators of waste pay product charges to the Enterprise for Management of Environmental Protection Activities (EMEPA). Funds collected in this way are used for financing projects for separate collection and recovery of waste.
- the producers and importers of waste organize and finance by themselves the waste collection and the achievement of the targets set for recovery or recycling. The activities are implemented individually or through collective systems, represented by an organization for recovery of waste. In this case product charges are not paid.

The fulfillment of this obligation is monitored by the RIEW. If the obligation has not been fulfilled this group has to pay back "products tax" in the EMEPA together with additional sanctions. There are 5 licensed recovery organizations operating in the country.

The state as a specific group of waste "producers"/"owners" as identified by WMA: Pursuant to the EPA, past contamination of sites or construction facilities on industrial sites with hazardous substances and waste generated by industrial, agricultural, commercial or transport activities, posing a hazard to human health or to the environment is defined as "damage caused to the environment resulting from past acts or omissions". A specialized Inter-institutional council to the Minister of Environment takes decisions on funding (according to available financial resources) of utilization and remediation for past contaminated sites, especially at the territory of privatized enterprises after 01.1999.

III. Terrains polluted with waste

1 Existing landfills for waste and illegal dumpsites

At present, a significant number of the **existing landfills for household waste** do not comply with the requirements of the national and EU legislation, except the ones that were constructed, reconstructed, modernized and put into operation after 1997. Due to the potential risk that they impose, it is of first priority to remediate them in order to guarantee their future operation, or to close and replace them with new facilities as envisaged in the Implementation Programme for Directive 1999/31/EC on landfilling of waste.

During the past few years, a National Program for Reducing the Number and Risk of Landfills and Past Contaminations with Waste was developed, featuring the solid waste landfills during its first stage. A register of landfills and past contaminations with waste was created, maintained by the Executive Environmental Agency, where information for 275 landfills has already been entered. Methodology for prioritization was developed. It is already used for investigation, inventory, assessment and categorization of 59 existing landfills of waste serving population of over 20 000 inhabitants (ca.70% of the country population), according to the assessed risk for the environment. The results showed that on one side, a significant number of landfills do not comply with the current requirements as technical facilities, and on the other hand, that they are spread within the country in a way, which is imposing a high risk. The landfills that were subject to inventory have been categorized into four groups, according to the risk they impose:

```
■ I – st group – very high risk – 12 landfills;
```

■ II – nd group – high risk – 17 landfills;

■ III – rd group – medium risk – 28 landfills;

■ IV – th group – minimum risk - 2 landfills

Twelve of the existing landfills for household waste serving settlements with population of over 20 000 inhabitants (including 3 of very high risk, 2 of high and 7 of medium risk) are expected to be closed by the end of 2006. The necessary measures for the remaining 47 landfills, situated on a total area of 3763 dca could be subject to the present OP. Furthermore, another 170 landfills serving settlements with population of under 20 000 inhabitants, exist in the country. The necessary measures for those 170 landfills, which are situated on a total area of 3482 dca could also be subject to the OP.

The number of **illegal dumpsites** in the country is still high. During 2001 and 2002, 5135 illegal dumpsites and terrains, contaminated with waste, have been identified in the country. Out of them 3554 have been closed by the end of 2004 (551 in 2002, 1677 in 2003 and 1326 in 2004).

2 Other waste contaminations

Pursuant to the Environmental Protection Act (2002) currently in force, past contamination of sites or construction facilities on industrial sites with hazardous substances and waste generated by industrial, agricultural, commercial or transport activities, posing a hazard to human health or to the environment is defined as "damage caused to the environment resulting from past acts or omissions".

Pursuant to EPA the State is liable for damages caused to the environment resulting from past acts or omissions until privatization of enterprises. Past contaminations are liquidated through activities undertaken in the framework of programmes for liquidation of the old environmental damages. By 31.12.2004 16 programmes comprising of 55 sub-projects in total for liquidation of past contaminations upon privatization of industrial enterprises have been implemented. In order to support the state budget, the required financial resources have been ensured through loan contracts with international financial institutions.

As a result of the exploration, extracting and primary processing/treatment of **mineral resources**, the environment is significantly damaged. A serious problem is the generation of huge quantities of waste, the treatment of which is limited mainly due to lack of technologies, customers' interest and economic regulators. The prevailing method for waste treatment is the landfilling. The waste generated from prospecting, extracting and processing of mineral resources is disposed at specialized landfills that are operated by the enterprises.

The total quantity of waste from the **coal mining** amounts to 3717.4 mil tonnes by the end of 2003. By the end of 2004 the total area of terrains damaged by the coal mining constitutes 22 027.5 ha, and only 7 926.9 ha are recultivated. The area of damaged terrains practically remains the same, while the area of recultivated ones significantly increases. In 2004 8,2 mln BGN from state budget were spent for activities with regard to technical decommissioning, recultivation and liquidation of the consequences of coal mining activities.

The total quantity of accumulated waste from **ore mining** amounts to 1318.7 mln tonnes by the end of 2004. The total area of terrains damaged by ore mining constitutes to 629,7 ha by the end of 2004, and 622 ha have been recultivated. During 2004, 38,7 ha were recultivated in comparison to 2003 and 2002, when 76,9 ha and 42,9 ha were recultivated, respectively. In 2004, 13 mln BGN were spent for technical and biological recultivation of terrains damaged by ore mining industry.

The total amount of accumulated waste by **non-metal and raw materials' extraction** constitutes 20 mil tonnes by 31.12.2004 to. The total area of terrains damaged by non-metal and raw materials'

extraction constitutes 2 545.9 ha by the end of 2004 ha, and 403,9 ha are recultivated. In 2004, 95,3 ha have been recultivated which is 3 times more than the area of recultivated sites in 2002 and 2003. By 31.12.2004 r. the ratio of damaged terrains to the total area of recultivated⁷ ones is 6:1, and the whole process could be assessed as unsatisfactory.

In order to decrease the impact of the extracting and processing industry on the environment, remediation measures are implemented according to the following Decrees of the Council of Ministers:

- Decree № 74/28.03.1998 on eliminating the consequences of the extraction and processing of uranium raw materials;
- Decree № 140/23.07.1992 on ore mining's restructuring and phase-outing of inefficient production facilities in the country;
- Decree № 195/2000 on technical liquidation, conservation and removal of the negative environmental impact of coal mining.

IV. Air

1 Emissions of harmful substances

During 1999-2004 the levels of the four major pollutants falling within the scope of Directive 2001/81/EC on the national emissions ceilings for certain atmospheric pollutants (SO2, NO2, NH3 and NMVOC) remains steady, with a relative decrease of the sulphur oxides' share as a result of operation of facilities for sulphur oxidies' removal in thermal power plants (10% of the emissions are captured).

Table 7: Emissions of harmful substances in the atmosphere (thousands tones/year.)

| Indicator | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|--|--------|--------|--------|--------|--------|--------|
| Sulphur oxides (SO) ⁸ | 942 | 982 | 940 | 965 | 968 | 929 |
| Nitrogen oxides (NO9 | 202 | 186 | 191 | 198 | 210 | 216 |
| Methane (CH4) | 486 | 604 | 618 | 652 | 656 | 632 |
| Non-methane volatile organic compounds (NMVOC) | 283 | 288 | 301 | 295 | 292 | 306 |
| Carbon oxide (CO) | 641 | 706 | 756 | 743 | 744 | 762 |
| Carbon dioxide (CO2) | 56 778 | 49 033 | 48 606 | 47 454 | 51 674 | 50 729 |
| Dinitrogen oxide (N2O) | 41 | 33 | 42 | 39 | 39 | 42 |
| Ammonia (NH3) | 65 | 56 | 56 | 57 | 52 | 54 |

Source: National Statistical Institute

With the current pace of development, if new large production facilities, which are sources of harmful substances, are not launched and if abatement technologies are introduced, by 2010 Bulgaria

⁷ Indicator is used for Community level assessment

⁸ Emissions of SO are calculated as SO₂

⁹ Emissions of NO are calculated as NO₂

will manage to fulfill its commitments under the Gothenburg Protocol on limitation of the national annual emissions and under the Convention on long-range trans-boundary air pollution.

In 2004 within the system of Ministry for Environment and Water, there are 70 stations for air quality control including 45 manual stations.

The energy sector is the main **sulphur oxide** polluter with a share of 88.2% of the total emissions, and the thermal power plants continue to emit 30% of the nitrogen oxides.

Activities connected with extraction and conversion of fossil fuels remain the most significant *methane* pollutants. In 2004 their share is 74,5 % of the total emissions. In 2004, the basic emittents of *ammonia* were agricultural activities and activities related to the treatment and landfilling of waste with a share of respectively 67.5% and 18% of the total emissions. The industry is the major emittent of *lead* in 2004 with a share of 89.3% of the total emissions. Industrial combustion processes and the thermal power plants are the most significant emittents of *mercury* with a share of respectively 52% and 34.8% of the total emissions for 2004. Industrial combustion processes emit 95% of the total emission of *cadmium*. Thermal power plants and burning of fuels in households are the basic emittents of *dioxins and furans*, with a share of respectively 49.5% and 27.3% of the total emissions emitted by anthropogenic activities in the country.

2 Legislation

The legal framework for the air quality sector comprises Environmental Protection Act, Clean Ambient Air Act and the secondary legislation. In accordance with the National Programme for Phasing-Out of the Production and Use of Leaded Petrol, as of 01.01.2004, the use and production of leaded petrol in the country is forbidden.

During the negotiation process for the country's accession to the EU, the following transition periods under several implementation programmes have been agreed:

- by the end of 2011 for limiting the sulphur content in boiler fuels to 1% (mass) pursuant to Directive 99/32/EC; In the implementation programme of this Directive the existing situation is examined, the expenditures for achieving the requirements are calculated and the sources of funding are outlined. The total costs for ensuring compliance with the directive are estimated as 1.5 million euro, which would be provided mainly through the state budget.
- by the end of 2007 and 2009 for limitation of emissions from VOC resulting from the storage of petrol and its distribution for terminals and service stations with "average" and "low" capacity pursuant to Directive 94/63/EC. The transitional periods are for the achievement of the requirements with regard to the emissions of volatile organic compounds resulting from the storage, transportation and distribution of fuels to the terminals and service stations with "average" and "low" capacity. In the implementation programme of this Directive the existing (or functioning) installations and service stations in the territory of the country are examined, the expenditures for achieving the requirements are calculated and the sources of funding are outlined. The investment plan for the implementation of the Directive does not envisage the use of external funding for providing the necessary investments for achieving compliance. It is agreed that the investments will be provided from the operators of the particular terminals, service stations and the transportation companies. The investments with regard to the fulfillment of measures in the Army, the Police and the State Reserve will be distributed equally between the State budget and the Enterprise for Management of Environmental Protection Activities (EMEPA).
- by the end of 2011 and 2014 for achieving compliance (in terms of the permissible emissions limit values) for individual blocks of TPP "Rousse", "Lukoil Neftochim –

Bourgas", "Varna" and "Bobov dol" pursuant to **Directive 2001/80/EC**. The transitional periods are for achieving compliance at stages (i.e. for achieving the permissible emissions limit values) of the individual blocks of TPP "Rouse", TPP "Lukoil Neftochim - Bourgas", TPP "Varna" and TPP "Bobovdol". The remaining 31 functioning large combustion plants, including the largest pollutants in TPP "Maritsa - Iztok" region will be brought in compliance with the requirements by the end of 2007. The Implementation programmes outline the calculated expenditures and the sources of funding. For the above mentioned four TPPs funding is envisaged only from operator's own resources (i.e. the new owners of the facilities). The implementation programme envisages funding with operator's own resources only for the functioning of large combustion plants, which should reach compliance by the end of 2007.

Due to the above mentioned commitments, the present OP does not include assistance from the Cohesion and/or Structural Funds for the implementation of the requirements of these Directives.

The Implementation Programme for Directive 99/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations does not envisage a transitional period for its implementation. As a result, the technical requirements set within its framework have to be applied to existing installations on the territory of the country by 31.10.2007.

V. Greenhouse gas emissions

Inventory¹⁰ of the emissions of greenhouse gases (GHG) for 2003 shows a total GHG emissions of 69 167 Gg in CO2 equiv. These figures demonstrate for the first time a change in the trend of the last 14 years. Table 8 represents the total amounts of the major GHG (not considering LUCF) and the share of the total GHG emissions to the emissions registered in the base year - 1988, assumed to be 100%.

Table 8: Total GHG emissions¹¹ in Gg, CO₂-equiv. and share in comparison to the base year

| Greenhouse gases/ year | CO ₂ | CH ₄ | N_2O | HFCs | PFCs | SF ₆ | Total | Share (%) |
|---------------------------|-----------------|-----------------|-----------|------|-------|-----------------|---------|-----------|
| 1988 | 102 518,53 | 24 441,41 | 14 861,15 | 0.00 | 0.00 | 0.00 | 141 821 | 100 |
| 1990 | 82 807,755 | 25 584,33 | 13 681,59 | 0.00 | 0.00 | 0.00 | 122 074 | 86,08 |
| 1991 | 65 273,351 | 24 986,37 | 11 326,92 | 0.00 | 0.00 | 0.00 | 101 587 | 71,63 |
| 1992 | 58 746,64 | 23 626,09 | 9 197,47 | 0.00 | 0.00 | 0.00 | 91 570 | 64,57 |
| 1993 | 61 108,49 | 21 238,35 | 8 045,57 | 0.00 | 0.00 | 0.00 | 90 392 | 63,74 |
| 1994 | 58 279,12 | 15 394,90 | 7 742,84 | 0.00 | 0.00 | 0.00 | 81 417 | 57,41 |
| 1995 | 61 340,66 | 16 145,83 | 8 405,85 | 2,95 | 46,94 | 0.00 | 85 943 | 60,60 |
| 1996 | 59 742,71 | 15 042,15 | 8 177,27 | 0.00 | 45,88 | 0.00 | 83 008 | 58,53 |
| 1997 | 57 909,88 | 12 801,91 | 7 741,82 | 0.00 | 37,26 | 0.00 | 78 491 | 55,34 |
| 1998 | 51 602,91 | 11 751,47 | 6 608,04 | 0.00 | 69,44 | 0.00 | 70 032 | 49,38 |
| 1999 | 47 887,79 | 10 092,33 | 6 222,62 | 0.00 | 43,55 | 0.00 | 64 246 | 45,30 |
| 2000 | 46 690,42 | 10 164,92 | 6 721,68 | 0.00 | 33,14 | 1,06 | 63 611 | 44,85 |
| 2001 | 48 914,33 | 9 370,31 | 6 624,47 | 0.00 | 16,29 | 1,10 | 64 926 | 45,78 |

¹⁰ Inventory for 2004 is in process

1

¹¹ Excluding Forestry

| Greenhouse gases/ year | CO ₂ | CH ₄ | N ₂ O | HFCs | PFCs | SF ₆ | Total | Share (%) |
|---------------------------|-----------------|-----------------|------------------|------|-------|-----------------|--------|-----------|
| 2002 | 46 755,50 | 9 375,51 | 6 274,98 | 0.00 | 21,42 | 1,10 | 62 429 | 44,02 |
| 2003 | 53 321,38 | 9 365,83 | 6 456, 39 | 0.00 | 20,69 | 2,52 | 69 167 | 49,98 |

Source: Executive Environmental Agency, 2004

Generally, the emissions of GHG demonstrate a tendency of decrease. This is due to the reduced emissions of GHG in sectors "Energy", "Industrial processes" and "Waste". In 2002 the emissions of GHG in CO2 equiv. were less compared to the base year 1988, and 2003 is the first year showing an increase in GHG emissions. However, the decrease in the emissions in 2003 is 50% of the value in the base year. In 2003 the emissions of CO2 had the largest share of the total GHG emissions expressed in CO2 equiv., the emissions of CH4 ranked second, and the emissions of NO2 ranked third. The Bulgarian energy sector emits over 77% of aggregated GHG emissions as per the last inventory from 2003.

Bulgaria ratified the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol in March 1995 and at present complies with the requirements of the UNFCCC. The forecast for GHG emissions in Bulgaria until 2020, based on the assumption that the Action plan on climate change will continue to apply, shows considerably lower values than the admissible ones under the Kyoto Protocol and ensures a reserve for compliance with the commitments. As a member of the EU, Bulgaria will participate in the first period of the implementation of the European Scheme for the GHG trade and its participation will continue also during the second period. Bulgaria actively participates in the "Joint implementation" mechanism under the Kyoto Protocol and prepares for introducing the European Scheme for the GHG trade as from 2007.

VI. Biodiversity

1 Wild flora and fauna and natural habitats

Bulgaria is one of the richest countries in terms of biological diversity in Europe including ca. 3700 higher plants species, ca. 5 200 fungi, 1300 lower plant species, lichens – 709, 700 vertebrate species, over 400 bird species, mammals -94, ca. 27 000 invertebrate species. Endemic plant species in Bulgaria constitute about 5% of the entire flora - a relatively high percentage for Europe. The available information on invertebrates shows that 8,8% of endemic species, excluding insects, and 4,3% of insect species are endemic. The known endemic vertebrates groups include 12 species of fresh water fish, 1 amphibian variety, 4 reptilian varieties and at least 4 mammal varieties. According to the Red Book of Bulgaria (1984), 158 species of higher plants are threatened and 574 species are rare. Appendix 3 to the Biodiversity Act (BD) in Bulgaria lists as protected 90 animal species, 331 bird species, 594 plant species.

Bulgaria offers almost all main types of natural habitats represented in Europe. An Appendix to the Biodiversity Act lists 106 types of natural habitats as representative for Bulgaria and Europe in accordance with the unified European habitat classification. A complete inventory and assessment of the natural habitats' diversity has not been made in the country yet. An Appendix to the Biodiversity Act comprises 102 plant species, 334 bird species and 91 other animal species excluding birds.

With a view to protecting the rare and threatened species, the assessment of the conservation status and the degree of endangerment of some Red-Book's plants and fungi populations continues, and in 2004 the work on the new Bulgarian Red Book started. Action plans on protection of the first 8 species of plant and 6 species of bird threatened are in preparation.

2 Protected areas and management plans

Considering the natural-historic and socio-economical conditions in the country, by 2010 the protected areas and protected zones within the National Environmental Network should cover at least 15% of the territory of the country. The pace of achieving that goal will be the strongest after 2007 when, as a member of the European Union, the identified and characterized representative habitat types for Bulgaria and Europe will be designated as units of the Pan-European Ecological Network NATURA 2000.

The number of protected areas in Bulgaria is 858 by the end of 2004, with a total surface of 544 394,9 ha, categorized as illustrated in Table 9. The decrease in the protected areas' surface in 2003 and 2004 was due to the re-categorization process of these areas in accordance with the categories of protected areas pursuant to the Protected Areas Act (PAA). In 2004 this process resulted in the closure of the peoples' parks and historic sites. At present the surface of protected areas in Bulgaria represents 4,9% of its total area. The share of the natural parks is the greatest -45%, followed by the national parks-27,6% and the reserves with 14,1%, while managed reserves have the smallest share - 0,8%. The existing protected areas possess a high nature protection value. The surface of the virgin forests in Bulgaria is 257 000 ha (according to TBFRA), ranking the country third in Europe. Natural processes are well represented in the Bulgarian protected areas (PA) and there is a high potential for their development into qualitative parks according to the Pan-European assessment.

Table 9: Protected areas (2002-2004)

| Nº | Category of protected areas (Pas) | Total number of PAs | | | Total surface of PAs (ha) | | | |
|----|-----------------------------------|---------------------|------|------|---------------------------|----------|----------|--|
| | | 2002 | 2003 | 2004 | 2002 | 2003 | 2004 | |
| 1. | Peoples' parks | 3 | 1 | 0 | 35690.6 | 1630.8 | 0 | |
| 2. | Reserves | 55 | 55 | 55 | 76979.0 | 76979.0 | 76979,0 | |
| 3. | Managed reserves | 35 | 35 | 35 | 4517.1 | 4517.1 | 4517,1 | |
| 4. | National parks | 3 | 3 | 3 | 150362.3 | 150362.3 | 150362,3 | |
| 5. | Natural parks | 8 | 10 | 10 | 210663.5 | 244723.3 | 244723,3 | |
| 6. | Protected sites | 175 | 402 | 409 | 41634.4 | 50047.9 | 51220,9 | |
| 7. | Natural monuments | 457 | 352 | 346 | 21833.6 | 16608.8 | 16592,3 | |
| 8. | Historical sites | 528 | 8 | 0 | 8246.7 | 134.8 | 0 | |
| | Total: | 1264 | 866 | 858 | 549927.2 | 545004.0 | 544394.9 | |

Source: Executive Environmental Agency, Green Book 2004

On the other hand the existing network of protected areas is not completely representative. Highly protected areas, including reserves, national parks and managed reserves represent only 2,1% of the country's territory. In the Ministry for Environment and Water a register of protected areas has been established. A significant problem is the lack of computerized boundaries and the lack of GIS of the protected areas. The cadastre of protected areas is not completely connected with the national land cadastre.

The process of designation of protected areas is slow. The development and approval of management plans for national/natural parks and managed reserves proved to be a challenge. Only 21 management plans have been approved since the adoption of the Protected Areas Act until the end of 2004.

3 Development of the national part of NATURA 2000 network

The Biological Diversity Act introduced a new form of territorial protection of biological diversity, namely the establishment of protected zones for conservation of natural habitats. The development of the national part of the NATURA 2000 network began in 2003. A GIS strategy is being developed along with a national GIS database compatible with the requirements of the European Commission. At present (January 2007) the inventarization process for the purposes of NATURA 2000 is completed and as a result maps and standard description packages in accordance with NATURA 2000 requirements are prepared. With regards to the Birds Directive there are 109¹² protected sites whish will be proposed for approval to the Bulgarian Council of Ministers (February 2007). These cover approximately 16% of the countries territory. Consequently the final list (approved by the Council of Ministers) with regards to the Bird Directive shall be promulgated in the State Gazette. With regards to the Habitat Directive a preliminary list of 196 potentially protected sites (i.e. approximately 15% of the country's territory) is discussed at the level of the National Council on Biodiversity. After that the list approved by this Council shall be presented for further approval to the Council of Ministers (February 2007). The final list of NATURA 2000 protected sites with regards to the Habitat Directive can only be promulgated after the approval by the European Commission.

4 Legislation

In 2003 Bulgaria closed the negotiations with the EU on Chapter 22 "Environment" without transitional periods agreed in the field of biological diversity. Bulgaria is a party to almost all global and European environmental conventions. The conservation and the sustainable use of biological diversity in the country are regulated by 3 laws and the related secondary legislation (the Protected Areas Act, the Medicinal Plants Act, and the Biological Diversity Act). In 2004 the Black Sea Biodiversity and Landscape Conservation Protocol to the Convention on the Protection of the Black Sea against Pollution and the European Landscape Convention were ratified by law.

The general regulatory framework for the protection and use of the respective biological resources and of the biological diversity is established by the sectoral legislation dealing both with natural biological resources and with those cultivated by man (Agricultural Land Conservation Act, Agricultural Land Ownership and Use Act, Protection of New Plant Varieties and Animal Breeds Act, Forests Act, Hunting and Game Keeping Act, Fisheries and Aquaculture Act, Veterinary Practices Act, etc.).

VII. Noise

Environmental noise caused by transport is one of the major environmental problems for the large towns in the country. Urban noise is studied by applying an intra-institutional methodology and indicators adopted within the framework of the National System for Control, Limitation and Abatement of Urban Noise. In 2004 the number of assessment points for measurement of noise levels is 592, which is 27 more than in 2003. In 2004 in 429 of the points noise levels above 60 dB(A) were measured. The analysis shows that the unfavorable acoustic background is maintained in the urban areas. Traffic noise constitutes 80-85% of the overall noise load in large settlements. Problems directly related to noise pollution caused by road transport are the lack of noise abatement barriers, shortcomings of urban planning, inefficient traffic organization and poorly maintained road network. The development of a new Ordinance for noise limit values considering also the specificity of air-traffic noise is envisaged.

¹² The figure represents the number of the sites that have been approved by the National Council on biodiversity.

The main sources of industrial noise are the small production enterprises, such as wood-processing enterprises, motor-car workshops, enterprises for production of woodwork, situated in settlements. Large industrial facilities located in or outside the settlements do not add to the acoustic load of the environment.

In 2003 the national legislation transposed Directive 2000/14/EC relating to the noise emission in the environment by equipment for use outdoors and Directive 86/594/EEC on airborne noise emitted by household appliances. The Protection of the Environment from Noise Act, which transposes Directive 2002/49/EC on assessment and management of noise in the environment, was adopted at the end of August 2005. The secondary legislation, introducing the requirements of Directive 2002/49/EC on the environmental noise indicators and the development of strategic noise maps and action plans is in a process of elaboration. Bulgaria has undertaken the commitment to apply from the date of accession the European legislation on noise adopted by 2003.

VIII. Financial needs for sector environment

The relative proportion of the expenditure for protection and restoration of the environment in Bulgaria as a percentage of the GDP for the period 1999 - 2004 is as follows:

Table 10: Relative proportion of the expenditure for environment as % of GDP (in thousand BGN)

| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|------------|------------|------------|------------|------------|------------|
| GDP by current prices | 23 790 440 | 26 752 833 | 29 709 210 | 32 335 083 | 34 410 000 | 38 301 339 |
| Expenditures for environment | 444 400 | 433 300 | 608 400 | 473 700 | 569 800 | 655 232 |
| Share of expenditures for environment as % of GDP | 1,87% | 1,62% | 2,05% | 1,46% | 1,66% | 1,71% |

Source: National Statistical Institute

During the period 1999-2001 the expenditures in sector environment are increasing in Bulgaria. In 2002-2003 there is a decrease in their levels, compared to the amount of the investments in 2001, but they are not changing significantly during the years, neither as a volume, nor as a structure. In 2004 the expenditures are increasing again. For the whole period the biggest proportion from the total expenditures are devoted to water protection, waste management and air protection.

1 Assessment of the necessary expenditure for sector environment

In 1998 was carried out an assessment of the necessary expenditures – investment and institutional, resulting from the harmonization of the Bulgarian with the European legislation in sector environment. The assessment is carried out with the technical and financial support of the European Union under the project "Technical Assistance for the Preparation of National Programme for the Absorption of the Acquis communautaire". The Programme covers the period 1998-2015 and is based on a statistical information, experts assessment, prepared programmes and studies. In 1999 an updated comprehensive assessment of the expenditures for the implementation of the different Directives was carried out under the project BUL 111 "Development of the Bulgarian Implementation Programme for Approximation of EU Environmental Legislation", accomplished again with financial support from the EU.

The last study of the costs for accession to the EU was carried out by World Bank experts, which is based on the previous two studies and which was completed at the end of 2001. The results from this study are as follows:

Table 11: Costs for accession to the EU (in million EUR, 2001).

| Sector | | Total investment costs | | nual tment sts ¹³ | Annual O&M costs | | Total annual costs | |
|----------------------|-------|------------------------|-----|------------------------------------|------------------|-----|--------------------|-------|
| | Min | Max | Min | Max | Min | Max | Min | Max |
| Air pollution | 3051 | 3260 | 359 | 383 | 391 | 428 | 750 | 811 |
| Drinking Water | 246 | 1 463 | 29 | 172 | 16 | 53 | 45 | 225 |
| Sewage | 734 | 1 114 | 86 | 131 | 16 | 22 | 102 | 153 |
| Wastewater treatment | 476 | 850 | 56 | 100 | 49 | 102 | 105 | 202 |
| Waste management | 850 | 1 150 | 100 | 135 | 93 | 132 | 193 | 267 |
| Nitrates | 103 | 155 | 12 | 18 | - | - | 12 | 18 |
| Other ¹⁴ | 30 | 30 | 3 | 3 | 12 | 12 | 15 | 15 |
| Total | 5 490 | 8 022 | 645 | 942 | 577 | 749 | 1 222 | 1 691 |

Source: World Bank, 2001

The needs from additional investments in all areas relevant with environment in Bulgaria are evident. The study of the World Bank on the necessary resources for implementation of EU requirements for conservation and management of environment show that they significantly exceed the potentiality of the existing national financial resources and proves the need from additional external financial sources, especially in the public sector. Therefore, during the last 6 years the financial support from EU through the pre-accession instruments PHARE, ISPA and SAPARD played a significant role. For the following 7 years Bulgaria will significantly rely on EU Cohesion and Structural Funds as well as on the opportunities that could be provided through the IFIs and the public-private partnerships.

An overview of the financial resources for the period 2007-2013, necessary for the implementation of the requirements of the EU Directives in the "water", "waste" and biodiversity sectors, falling within the scope of the Operational Programme "Environment 2007-2013" is provided in Annex 6 to the present document.

2 Transition periods and Implementation programmes for EU Directives

During the negotiations on Chapter 22 "Environment" for accession to the EU, significant efforts were undertaken for the exact clarification of the parameters on the financial commitments, which the country undertakes with the implementation of EU legislation. As a consequence of the undertaken analyses, it was established that Bulgaria doesn't posses all the necessary financial resources in order to fully implement the requirements of the EU Directives in the framework of the defined time limits. Therefore, transitional periods were negotiated for a number of requirements related to the implementation of the so called "heavy" Directives. With the aim of giving reasons for the necessary transitional periods, Implementation programmes of the requirements of these Directives were elaborated. The Programmes contain calculations of the necessary financial resources. As a result of the undertaken negotiations, transition periods were negotiated on 10 Directives from the European environmental law.

¹³ All costs related to maintenance and capacity building of the public administration as well as the subsidies for nature protection.

¹⁴ The costs do not include the costs for nuclear safety, commerce and elimination of past pollution. The costs for the transport and industrial sector are partially included.

With the Implementation programmes more detailed assessments of the necessary expenditures for reaching compliance with EU requirements were elaborated. On the other hand, the financial consequences for the country during the implementation of the European legislation were assessed in depth because in these Directives are concentrated more than 90% of the resources necessary for the accomplishment of the EU requirements. Numerically that means:

Table 12: Total investment costs for the public sector according to Implementation programmes (in million EUR).

| Sector | Total investment | Investment costs up to | Inve | Investment costs after | | | | | |
|---------------------|------------------|------------------------|------|--------------------------------------|-----|-----|-----|-------|-------|
| | costs | 2005 | 2005 | 2005 2006 2007 2008 2009 2005 - 2009 | | | | | |
| Water ¹⁵ | 2 218 | 144 | 120 | 151 | 175 | 211 | 239 | 896 | 1 177 |
| Waste | 445 | 53 | 51 | 52 | 54 | 29 | 31 | 216 | 176 |
| IPPC | 47 | 16 | 8 | 7 | 7 | 6 | 4 | 31 | 0 |
| LCP | 657 | 137 | 164 | 195 | 161 | 0 | 0 | 520 | 0 |
| Total | 3 367 | 350 | 343 | 405 | 396 | 245 | 274 | 1 663 | 1 353 |

Source: Implementation programmes for EC Directives

IX. The role of the EU pre-accession instruments for sector environment

1 ISPA Programme

The general objective of ISPA programme in the field of environment is to ensure financial support for infrastructure investments (urban waste water, drinking water, air framework, large combustion plants, waste incineration and management) needed for implementation of the requirements of EU "investment heavy" Directives. The ISPA financial instrument has been applied in Bulgaria in the pre-accession period from 2000 to 2006. In sector environment the financial instrument has funded 25 projects in total, amounting to more than 430 million euro in the fields of water, waste and air, and also technical assistance projects. The total investment costs of the environmental projects funded through ISPA are more than 600 million euro. During the implementation of ISPA in Bulgaria, a priority was given to the water sector, which is the most demanding sector in terms of reaching compliance with the EU Directives. The main portion of the ISPA financial assistance allocated to sector environment was granted to projects for integrated water management (75 %, i.e. approximately 325 million euro).

2 PHARE Programme

Through PHARE pre-accession instrument Bulgaria has received financial assistance in the field of environment for institutional building, transposition of legislation and preparation of investment projects. The total amount of the PHARE support to the sector (through the PHARE national programmes) is more than 47 million euro. Additionally, projects for transposition of legislation and institutional building in sector environment, funded through PHARE, amount to more than 12 million euro.

¹⁵ The Implementation programme for the requirements of Directive 91/271/EC includes only investments for sewage systems, including waste water treatment plants.

3 SAPARD Programme

The programme has had a positive impact on the implementation of European standards and the acquis communautaire. The conservation of the environment, compliance with food hygiene and safety standards were imbedded in the projects selection criteria.

The programme has contributed to the implementation of CAP objectives and the administrative capacity building. The assessment of the administrative capacity, the efforts to improve the functioning of the public institutions, engaged in the programme management, and the level of harmonization of the national with the European legislation indicated a substantial progress in this field.

SAPARD resulted in substantial investments in Bulgarian agriculture and the food processing industry. The investments in agricultural holdings supported under the programme for the period 2001 to June 2006 amounted to approximately 111 million EUR public investments attracting an additional 134 million EUR of farmers own funds. Investments in the food processing sectors supported under the programme equalled for the same period nearly 100 million EUR public investments1 attracting an additional 120 million EUR of processors own funds.

As regards the effects of complementarity and deadweight support, the mid-term evaluation update indicated that the programme had attracted considerable additional investments. The evaluators discovered that 89% of respondents stated that they would not have made the same investment without SAPARD funds and 30% said that they would not have made any investment at all without the programme. In terms of leverage effect ca 80% of respondents said that they had made additional investments as a result of SAPARD funding.

4 Lessons learned from pre-accession assistance

In light of the lessons learned from the pre-accession assistance, there are some conclusions, recommendations and corrective measures that are relevant for the future implementation of EU Funds in Bulgaria. Efforts should be focused in overcoming weaknesses in the following areas:

Technical Aspects

- Improving project preparation in particular project design and tender documents and related to this strengthening the capacity of beneficiaries to elaborate good quality technical specifications and tender documentation
- Adjusting the size of the project pipeline smaller projects are more effective in terms of implementation that bigger projects
- Decreasing cumulative delays resulting from contracting difficulties in early stages
- Improving quality assurance and time management in all relevant institutions

Administrative and Institutional Aspects

- Improving technical assistance and capacity building at all administrative levels via improvement of motivation and remuneration
- Improving implementation capacity more specifically by mitigating the weaknesses in the area of contract management, financial management and control and procurement.

- Improving coordination between stakeholders, which requires extensive and clear information flows with a focus on common understanding of tasks, timeframes and interdependencies
- Decentralizing management to ensure consultative processes for consensus building or programme implementation that reflects local circumstances
- Establishing sound regulatory and legal framework, e.g. public procurement, PPP

Financial Aspects

- Improving the quality of indicators and consistency between financial indicators and physical progress indicators, feasibility studies, cost benefit analysis
- Taking account of affordability, ensuring long-term financial sustainability

D. SWOT Analysis

The Analysis of strengths, weaknesses, opportunities and threats (SWOT analysis) for the purposes of OP "Environment 2007-2013" was elaborated by the working group, responsible for the preparation of the OP in the period of January – March 2005. In line with the methodology applied and based on the analysis of the current situation, the subject of the analysis and the most important factors that have an impact on the sector were defined first.

The subject of the SWOT analysis was defined as "The status of the environment in Republic of Bulgaria looked from the perspective of complying with the requirements of the EU environmental legislation.".

During the ex – ante evaluation of the OP "Environment" a recommendation was made (in the draft report of the ex – ante evaluation) to divide the SWOT analysis additionally into main findings per sector (e.g. water, waste etc), as well as to introduce a more detailed description of the identified strengths, weaknesses, opportunities and threats.

The results of the SWOT analysis including the recommendation of the ex-ante evaluation are presented in the following table:

| | STRENGTHS | | WEAKNESSES |
|----|---|-----|--|
| | GE | NI | ERAL |
| 1. | Relatively well-developed system for monitoring of most of the environmental components (except for biodiversity monitoring). | | protection of the environment and for efficient use of natural resources. |
| 2. | Established legal framework harmonized with the EU environmental legislation including adopted programmes/strategies for implementation of environmental protection policies. | | High costs of investment to improve and adequately protect the environment and to implement the environmental legislation. |
| | | 3. | Insufficient administrative capacity, particularly at municipal level, for implementation of the requirements of environmental legislation and for programming, preparation, management, evaluation and monitoring of investment programmes, plans and projects. |
| | | 4. | Disparities in the level of access to certain basic services between rural and urban areas (sewerage systems, waste collection) |
| | | 5. | Ongoing economic growth in high-impact industries (especially in the construction sector) has been impacting the natural environment and landscape at various scales. |
| | | 6. | Relatively low level of perception of environmental issues and needs from local administrations, managers, firms and residents |
| | | 7. | Energy-efficiency measures (energy-saving, building-isolation, more efficient production technologies, renewable sources) are applied and used only to a limited extent |
| | | 8. | Energy consumption prices are not yet at market level (even without externalities internalized) |
| | | 9. | Insufficient perception of impact of tourism development on environmental equilibrium of sensitive tourist-attractors (coasts, beaches, mountains, skiing sites, etc.) |
| | W | A'] | ER |
| 1. | Low aggregate level of water pollution despite the absence of adequate waste water infrastructure and | 1. | Insufficient and outdated infrastructure of water cycle management resulting in ineffective collection, supply, discharge and treatment of water in most cities and river |

| | C'T'DENIC'T'LLC | | WEAVNIESSES |
|----|---|------|---|
| | STRENGTHS | | WEAKNESSES |
| | other anti-pollution measures. | | basins. In particular: insufficient sewerage network connections, urban waste water treatment plants, depreciated water supply systems. |
| 2. | Water supply network in the country is extensive and is serving a large portion of the population, both in urban and rural areas. | 2. | Almost 100% ¹⁶ of surface and ground water in the country are declared as "sensitive zones" in the sense of Directive 91/271/EC. |
| 3. | Intensive farming is underdeveloped in comparison to the old EU member states, resulting in low level of fertilizer use in farming in Bulgaria, which positively affects the food-chain. | 3. | River hasins management is not yet integrated |
| 4. | Decreased output of high-polluting industrial plants with consequent decrease of pollution per unit of GDP, regardless the existence of new environment-friendly production processes. | 4. | Flood prevention is poor despite increasing risk patterns due to tropicalization of the climate |
| 5. | Legal and institutional provisions for integrated river basins management are being set-up. | | |
| | W | 'AS' | ГЕ |
| 1. | The establishment of national system of regional facilities for treatment of municipal solid waste is initiated. | 1. | Insufficiently developed systems for waste collection (including separate waste collection), waste transportation and environment-friendly waste treatment facilities. |
| 2. | Increasing understanding and application of the "Polluter pays" and "Producer responsibility" principles. | 2. | Insufficient measures for waste minimization, re-use, recycling and recovery. |
| 3. | Non-industrial generated waste is decreasing. | 3. | Large number of risky municipal landfills, illegal dumpsites, past contaminations, micro-dumping sites, due to solid waste uncontrolled discharge practices and large area of other intensively polluted areas. |
| | | 4. | Industrially-generated waste is increasing because of economic growth without suitable environment-friendly provisions. |
| | BIODIVERSI | TY | /NATURA 2000 |
| 1. | Rich biodiversity, especially when compared to other European countries, with high level of naturally established sites within the protected areas and high potential for extensive and high quality NATURA 2000 sites. | 1. | Decrease in the biodiversity due to process of deterioration of the conditions in some ecosystems, habitats, microclimates and natural food-chain. |
| 2. | National monitoring system for biodiversity under development. | 2. | National environmental network of protected sites and areas is not sufficiently developed. |
| | | 3. | Biodiversity protection (including a set of comprehensive management plans) is still not developed |
| | | 4. | Monitoring of habitats, species and other biodiversity indicators is not yet fully developed |
| | AIR | & N | IOISE |
| 1. | Relatively low greenhouse gas emissions generated within the country. | 1. | Air quality is low in large parts of capital city and other industrial centers |
| | | 2. | Noise level is high in large parts of capital city and other industrial centers |

¹⁶ With the exception of the Mesta river.

42

| | OPPORTUNITIES | THREATS | | | | | |
|-----|---|---------|---|--|--|--|--|
| | GE | ENERAL | | | | | |
| 1. | Realization of accelerated economic growth and increase of national financial resources for investments in the environmental sector and especially in the utilities infrastructure field. | 1. | Global climate change, falling of the country in the drought zone and risks, related to unforeseen disasters (i.e. floods, accidents, drought); | | | | |
| 2. | Accession of the country to the European Union and utilization of EU resources (structural funds, expertise, advising, networks, etc.) for solving problems related to environmental protection in the country. | 2. | Insufficient funds available for business and public sector for compliance to implementation of environmental legislation, related to amendments and supplements in the EU environmental legislation. | | | | |
| 3. | Increase of financial capacity for environment projects thanks to alternative financing of environmental protection activities through participation of Bulgaria in various global funds/projects. | 3. | Further pollution increase due to intensification of agriculture, industrial activities, transport and tourism without compliance with environmental requirements. | | | | |
| 4. | Higher energy efficiency and use of renewable energy sources thanks to the development of the current process of restructuring of the energy sector at European level. | 4. | Negative public attitude towards construction of waste treatment facilities. | | | | |
| 5. | Sufficient potential for the development of the institutional framework for public information and participation in decision making process on environmental matters. | 5. | Energy supply needs will require higher capacity, in turn creating potential threats coming from non-environmental-friendly solutions (polluting plants, larger quantities of imported oil, etc.). | | | | |
| 6. | Potential for the inclusion of the business community in environment-protection efforts. | 6. | Supply of services in the environmental engineering sector does not meet the increased demand in terms of quantity and/or quality. | | | | |
| 7. | Restructuring of the ownership and the management of the branches of the utility industry (especially in the water-cycle management) leading to an environmentally sound and more profitable sector. | 7. | Complexity of administrative procedures and increasing bureaucracy will result in additional slow down of projects' planning and implementation. | | | | |
| 8. | Introduction of effective and contemporary techniques applied in relation to the environmental sector in other countries. | 8. | Insufficient integration of environmental policy with other sector policies and their legislation. | | | | |
| 9. | Creation of new markets related to environment services via internalization in the market of negative and positive externalities, at least partially. | | | | | | |
| 10. | Possibilities to boost innovative technology solutions especially in the energy field | | | | | | |
| 11. | Obtain a certain degree of self-financing for utilities projects through adequate development of PPP potential. | | | | | | |

E. OP strategic objectives and priority axes

I. OP strategic objectives

1 Global strategic objective

The environment in Bulgaria is one of the most valuable national assets that should be protected and preserved with a view to gain future benefits. At the same time our country is going through a period of major changes and many of them expose this asset to potential risks. In order to protect and preserve the natural resources and improve the state of the environment in the country, sustainable development should be ensured for the future – not only in social and economic but also in environmental terms. For this reason the main strategic objective of the environmental policy for the period 2005-2015 is:

To improve the quality of life of the population in the country through ensuring healthy and favorable
environment and to preserve the rich natural heritage on the basis of sustainable development of the
country.

The OP "Environment 2007 -2013" is one of the instruments for the implementation of the national policy for development of the country and particularly of the national environmental policy. Objectives and priorities of the national environmental policy will be supplemented also by other means, other financial resources, respectively, in accordance with the national sectoral and regional programmes and plans (such as OPs "Regional development", "Development of the competitiveness of the Bulgarian economy" and "Administrative capacity", Rural Development Programme, "Fishery and Aquacultures" Programme).

In this sense the implementation of OP "Environment 2007 -2013" is also directed towards achieving the strategic objectives of the 2007-2013 National Strategic Reference Framework, namely:

- Strengthen the competitiveness of the economy to achieve high and sustainable growth;
- Develop human capital to ensure higher employment, income and social integration.

The National Strategy for Environment and the National Development Plan as well as the commitments undertaken during the negotiation process for country's accession to the EU directly or indirectly define the development of the environmental infrastructure as a condition for improvement of the quality of the environment. The National Strategic Reference Framework of the country for the period 2007-2013 defines 4 priority areas for interventions in the next 7 years, as following:

- NSRF Priority 1: Improving basic infrastructure
- NSRF Priority 2: Increasing the quality of human capital with a focus on employment
- NSRF Priority 3: Fostering entrepreneurship, favorable business environment and good governance
- NSRF Priority 4: Supporting Balanced Territorial Development

In order to achieve the above-stated objectives, identified in the basic national documents, the following general strategic objective of OP "Environment 2007-2013" is defined:

- Improvement, preservation and recovery of the natural environment and development of the environmental infrastructure.

The implementation of the OP general objective will contribute to the improvement of the quality of life of the population and to expanding the possibilities for investments in the country. Therefore the OP "Environment 2007 -2013" will contribute to the implementation of priorities 1 and 4 of the NSRF. The general strategic objective of the OP also contributes to the following priority of the European Community for the cohesion policy 2007 – 2013: *improvement of attractiveness of EU Member States, cities and regions through improving accessibility, ensuring quality and level of services, and preserving their environmental potential.*

2 Specific strategic objectives

The past decade is characterized with favorable changes for the Bulgarian environment. The considerable developments in respect to the environment in the country contributed to the reduction of the disparities with the average EU level for variety of indicators. Nevertheless, there is a need of additional efforts in order to achieve progress on a variety of issues.

In the field of infrastructure for the protection and rational use of water, the main issues in the country are related to the increase of the share of the population, connected to sewerage networks and to urban waste water treatment plants. The water supply in some regions has deteriorated due to the poor condition of the water supply systems. In addition, the water resources are not uniformly allocated along the territory of the country and the population in some regions suffers seasonal (in some cases all-year) shortage of water. There is a definite need of improvement of the water balance, of increase of the accessible water resources and last but not least of improvement of the infrastructure and the measures for prevention of the floods, which became an essential issue for the country during the past year. The development of alternative water supply, schemes of water consumption, new water sources and measures for prevention or elimination of the negative impact of the floods also require significant investments. These needs shall be covered by several OPs. OP "Environment 2007-2013" will be mainly directed towards the achievement of compliance with the requirements of the European environmental legislation in the field of building up sewerage systems, including urban WWTPs.

In the field of infrastructure, related to waste management, the main issues in the country that need solution are related to building up the needed waste treatment infrastructure, the extension and modernization of the organized waste collection and transportation systems, reduction of the municipal waste generation, the introduction of their separate collection and implementation of activities directed towards reuse of the generated waste. The issues related to management of the construction and demolition waste in the country require a solution as well. Last but not least are the issues related to the existing municipal waste landfills that do not meet the requirements of the legislation, to the existing old contaminations and to the improvement of the management of illegal municipal waste dumpsites. OP "Environment 2007-2013" will be directed mainly towards the achievement of compliance with the requirements of the European environmental legislation and in particular with Directive 1999/31/EC.

Bulgaria is one of the richest countries in Europe in terms of flora and fauna (biodiversity), diverse natural habitats, extensive forests and other natural resources of biological significance. The protection of biodiversity requires the long-term preservation of the natural habitats of the rare species. The relevant policy in Bulgaria involves measures, such as development of the NATURA 2000 network, increase of the protected areas and creation of mechanisms for their management. In addition to the conservation and rehabilitation of the natural habitats, special efforts are also needed to protect certain species that are extremely endangered from extinction. A part of the envisaged actions is geared towards formulation, approval, and implementation of Action Plans for all endangered species of European/global significance. OP "Environment 2007-2013" will target the preservation of natural habitats through development, updating and implementation of the

protected areas management plans and of plans for management of the protected zones of NATURA 2000.

Table 13: Main differences between Bulgaria and EU concerning environment

| | Indicator ¹⁷ | Definition of the indicator | Bulgaria | EU – 25 (average) |
|---|--|---|--------------|---|
| 1 | Total greenhouse gas emissions | Aggregated emissions of the 6 basic greenhouse gases (CO ₂ , CH ₄ , N ₂ O, HFC, PFC and SF ₆) in CO ₂ equivalent. The base year is equal to 100. (1990 = 100 for CO ₂ , CH ₄ $_{\rm H}$ N ₂ O); (1995 = 100 for HFC, PFC and SF ₆) | 44.0 (2002) | 91.0 (2002) |
| 2 | CO ₂ emissions | The indicator compares the level of CO ₂ emissions in EU countries and the rest countries (developing countries according to the OECD definition). It is presented as tons of CO ₂ emissions per capita of population. | 5.9 (2002) | 8.8 (2002) |
| 3 | Total SO ₂ emissions 18 | The indicator presents the total SO ₂ emissions of the certain country for 2001, measured in kilotons. | 849.0 (2001) | Austria – 37 (2001) Portugal – 301 (2001) Hungary – 401 (2001) Czech Republic – 251 (2001) Poland – 1564 (2001) |
| 4 | Municipal waste collected | The indicator presents the amount of municipal waste collected from the population, incl. waste from commerce, offices and public institutions (measured in kg/resident/year) | 500 (2002) | 531 (2002) |
| 5 | Municipal waste landfilled | The indicator presents the share of municipal waste collected, incl. waste from commerce, offices and public institutions disposed off through landfills (measured in kg/resident/year) | 404 (2002) | 267 (2002) |
| 6 | Municipal waste incinerated | The indicator presents the share of municipal waste collected, incl. waste from commerce, offices and public institutions disposed off through incineration (measured in kg/resident/year) | 0 (2002) | 91 (2002) |
| 7 | Population connected to the water sewerage network | The indicator presents the percentage of population connected to the water sewerage network in relation to the total number of population in the country. | 67.0 (2000) | Austria – 85.0 (2000) Hungary – 51.0 (2000) Czech Republic – 75.0 (2000) |
| 8 | Population connected to WWTP | The indicator presents the percentage of population connected to a municipal WWTP, compared to the total number of population in the country. | 39.0 (2001) | Austria – 86.0 (2001) Czech Republic – 68.0 (2001) |

Source: Ministry of Environment and Water, National Statistical Institute, EUROSTAT

The gradual reduction of disparities requires harmonization of environmental legislation, as well as building and strengthening of administrative capacity on one side and significant investments in environment protection and improvement on the other side.

On the basis of the Community Strategic Guidelines for Cohesion policy 2007-2013 and for the purposes of implementing the main priorities of the European Union concerning employment, growth and sustainability (Lisbon, Gothenburg) the following specific strategic objectives of OP "Environment 2007 -2013" are defined:

- Protection and improvement of the condition of water resources;
- Improvement of waste management and soil protection;
- Preservation of biodiversity and nature protection;

All data (excluding the data for the total SO₂ emissions) is from the EUROSTAT web page: www.epp.eurostat.cec.eu.int – statistics for sector "Environment"

46

¹⁸ The data is from the web page of European Environment Agency <u>www.themes.eea.eu.int/Specific_media/air</u>

These specific objectives shall also ensure the complementarily with the other EU policies. Last but not least they are based on the analysis of the current situation in sector environment, described in the previous chapter.

The global strategic objective and the resulting specific strategic objectives will contribute to the *strengthening of the synergies between the environmental protection and growth,* as required by the Community Strategic Guidelines.

The implementation strategy for OP "Environment 2007 -2013" is based on: 1) the analysis of the present situation for the period 1999 – 2004; 2) the SWOT analysis elaborated for purposes of the programme; 3) the main differences in the key indicators that were identified for the environmental sectors between EU and Bulgaria. The implementation strategy is described by means of definition of a certain number of priority axes, each of them comprising a distinct type of activities.

The implementation of OP "Environment 2007 -2013" is directed to the objectives of European Community environmental policy, which in accordance with Art. 174 of the Treaty for establishing the European Community are: preserving, protecting and improving the quality of environment, prudent and rational utilization of natural resources and protecting human health.

II. OP priority axes

The OP "Environment 2007 – 2013" identifies 4 priority axes, which will be financed by two European Union Funds: (1) the Cohesion Fund and (2) the European Regional Development Fund.

Through the definition of priority axes for financing in the fields of "water", "waste" and "biodiversity", the OP "Environment 2007 -2013" corresponds to the necessities for investments in the environmental infrastructure, aiming at achieving compliance with the EC environmental legislation. In this way the priorities of the OP are defined in accordance with the activities proposed by the Strategic Guidelines for financing, in order to strengthen the unity between the environmental protection and growth.

OP "Environment 2007 – 2013" will focus on the implementation of the priorities that are directed towards compliance with the directives, requiring the largest financial resources. The implementation of the priorities shall contribute to the compliance with the requirements of both EU and national legislation in the field of environment.

Priority 4 is directed towards providing the necessary technical assistance for the overall OP.

The gross jobs created as a result of the activities carried out with financing from all priority axes of OP "Environment 2007-2013" will be monitored during the programming period purely for accountability purposes for the future ex-post evaluation for which the Commission is responsible. The collected from the application forms monitoring data regarding gross jobs created will be included within the annual reports on implementation of OP submitted by the MA to the European Commission. The total number of gross jobs created during the implementation of the OPE for the whole programming period will be included within the final report on implementation and submitted to the EC.

The implementation of all four priority axes of the operational programme will guarantee compliance with Article 17 of Council Regulation (EC) 1083/2006 of 11 July 2006, which stipulates that the "objectives of the Funds should be pursued in the framework of sustainable development and improving the environment as set out in Article 6 of the Treaty".

Projects co-financed by the operational programme will fully respect the provisions of the Environmental Impact Assessment Directive, Habitats and Birds Directives. Appropriate screening

criteria will be applied at the project selection stage to ensure that the projects are compliant with the above mentioned Directives. The Bulgarian authorities will take appropriate actions (e.g. guidance, trainings for beneficiaries etc. based on the best Community practices) to assure that the projects will comply with these requirements. Co-financing of projects having negative impact on potential Natura 2000 sites (i.e sites, that in the Commission's view need to be designated, but were not designated by Bulgaria), will not permitted.

Priority axis 1: Improvement and development of water and wastewater infrastructure in settlements with over 2000 PE and in settlements below 2000 PE within urban agglomeration areas.

1.1 Rationale and description of the priority axis

The priority axis is based on the purpose of Council Directive 2000/60/EC laying down the framework for community activities related to water - Water Framework Directive (WFD) as well as the purposes of Council Directive 91/271/EEC for urban waste water treatment.

Bulgaria will have to comply with the requirements of Council Directive 91/271/EEC on urban waste water treatment by December 31, 2010 for all agglomerations with a population equivalent (PE) above 10 000 and by 31 December 2014 for agglomerations with PE between 2 000 and 10 000. This requires extension, reconstruction and modernization, as well as construction of new sewerage systems including UWWTPs in the settlements. The above mentioned deadlines represent the schedule for waste water treatment in compliance with the requirements of this Directive.

At the same time, Bulgaria has declared all water resources on its entire territory as being sensitive zones/except Mesta River with its river valley and Dobrudza's rivers and gullies/. For agglomerations with PE above 10 000, which discharge in sensitive zones, elimination of nitrogen and phosphorus is required.

In 2003 Bulgaria has developed an Implementation Programme for the requirements of Directive 91/271/EEC. According to this directive it has been determined that 430 agglomerations (settlements or group of settlements, resorts, country sites, districts of big cities) require the construction of entire sewerage infrastructure, completion or reconstruction of the existing sewerage networks and WWTP.

The above mentioned 430 agglomerations include 20 agglomerations with PE above 100 000, 101 agglomerations with PE between 10 000 and 100 000 and most of the agglomerations (309) are in the category 2 000 – 10 000 PE. The total estimated investment costs of the programme are 4 337 million BGN. In 2006 the total estimated investment costs needed are 3 461 million BGN (1 770 million EUR). For the rest of the investments, funding has been provided mainly through ISPA and PHARE financial instrument and from the national state budget.

In addition to the 430 agglomerations with PE above 2 000 as identified within the Implementation Programme for Directive 91/271/EEC, the present priority axis will also provide funding for water related projects in settlements below 2 000 PE which are located within urban agglomeration areas. This is necessitated by the scope and coverage of the Rural Development Programme, which will finance water and wastewater infrastructure projects only in *rural* municipalities below 2000 PE. Therefore, in order to cover the whole territory and population of the Republic of Bulgaria, settlements below PE 2000 located in *urban* agglomeration areas will be eligible for receiving financing from the present priority axis of Operational Programme "Environment 2007-2013". The

Annex VII indicates demarcation between Operational Programme "Environment 2007-2013", Rural Development Programme and the Operational Programme "Regional Development".

Approximately 70% of the total budget of the present OP has been devoted to this priority axis. This would provide for approximately 68% coverage of the needed financial resources as identified in the IP for directive 91/271/EC.

The Framework Water Directive is the milestone for EU water policy and is also important for other areas as it provides a framework and a tool for integrated river basin management. The aim of this Directive is to prevent "further deterioration" (i.e. not to make water condition worse) and achieve "good ecological and chemical status" (i.e. improvement of the current state) in all EU water resources by December 2015.

The integrated river basin management is based on the natural functioning of freshwater ecosystems, including wetlands and groundwater, as these are the source of freshwater on which population depends. The implementation of WFD requirements consists of several planning cycles. The first one covers 15 years (from 2000 to 2015), while the subsequent ones are to take place every 6 years thereafter. During these cycles, the river basin directorates will have to be established and they should develop and implement a set of different tasks. Each cycle shall be reflected in a River Basin Management Plan, which includes all the measures needed to prevent deterioration and achieve "good status" for water quality. The first River Basin Management Plans under the Water Framework Directive should be finalized by 2009, with the first set of measures starting to apply in 2012. Bulgaria has not requested any transition periods for complying with the requirements of the WFD with regards to this aspect.

According to the European Community Guidelines for the Structural Funds and their coordination with the Cohesion Fund (COM (2003) 499 final) the specific measures targeted at waste water treatment actions must be seen as part of an overall strategy for ensuring the ecological status and chemical quality in the entire river basin. Integrated river basin management programmes, including the development of the management plans foreseen under the WFD, will also be eligible for financial assistance.

1.2 Objective of priority axis

The main objective of the priority axis is preservation and improvement of the environmental condition of the water in the country.

The reduction of the disparities with regards to the share of the population connected to sewerage system as well as the achievement of compliance with Directive 91/271/EEC through the provision of (environmental friendly) discharge of waste water from agglomeration with over 2 000 PE, will be supported within the framework of the priority. In addition, the priority will also provide financial assistance for water and wastewater infrastructure projects in settlements below 2000 PE located in urban agglomeration areas. Furthermore, the present priority axis will support the implementation of the basin water management approach, in view of preserving and improving the water environment in the country, as well as sustainable water use and protection measures in the cases of natural disasters.

1.3 Indicators for implementation of the priority axis

The following result and output indicators are identified for the purpose of measuring the progress on the implementation of the priority axis.

Table 14: Indicators for Priority axis 1

| Definition of indicators | Unit of measurement | Baseline data 2007 | Mid-term data (2010) | Data in the end of period - 2013 | Sources of information | | | |
|--|---------------------|-----------------------|----------------------|-------------------------------------|---|--|--|--|
| | | Result indicator | S | | | | | |
| Population connected to urban waste water treatment plants | % | 40,5 % 19 | 58,04% | 66,46 %3 | NSI | | | |
| Additional population served by waste water projects | number | 45 000 | 1 295 000 | 1 845 000 | MOEW, beneficiary, project application forms, progress reports of the approved projects | | | |
| Output indicators | | | | | | | | |
| New and rehabilitated WWTP | number | 14 | 22 | 65 | MOEW, beneficiary, project application forms | | | |

1.4 Typology of activities within the priority axis

The following indicative types of activities are envisaged for funding under this priority axis:

With a view of the available financial resources (compared with the needs) this priority axis shall primarily finance (1) the construction/reconstruction/modernization of wastewater treatment plants including the introduction of tertiary treatment, where necessary, for agglomerations settlement of with more than 10000 construction/extension/reconstruction/ of sewage networks within the same agglomerations. Considering that Bulgaria has declared all water resources on its territory as being sensitive zones (except Mesta River with its river valley and Dobrudza's rivers and gullies), preference will be given to projects related to waste water treatment in agglomerations with PE above 10 000, which discharge in sensitive zones. These interventions might be supported, where proven justification for improving the quality and/or quantity of the drinking water supplied exists, with the relevant components (according to the specific needs of the same agglomerations) for construction/reconstruction/extension of water supply networks, new water storage tanks, main water supply pipes connecting the water supply networks with the water sources for ensuring provision of required water quantity and/or quality, pumping stations, as well as the construction/reconstruction/modernization of drinking water treatment plants, as well as the necessary rehabilitation activities aiming at minimization of the water supply and storage losses.

These will be executed with a view to fulfill the requirements for the application of an integrated approach to solving the problems in the field of "water supply and sewerage" of the water sector and the provision of sufficient water quantity with the necessary quality appropriate for consumption from the population. Such prioritization reflects the agreed transition periods for the implementation of Directive 91/271. Advantage shall be given to operations (projects) that apply the (single or phased) integrated approach for solving the issues, as well as to those which guarantee sustainability in case of natural disasters.

(2) As a **second priority** within the present priority axis the following shall be financed: (1) the construction/reconstruction/modernization of wastewater treatment plants, where necessary,

¹⁹ NSI statistical reference book "Environment" 2004 – the data is for 2004.

³ This target value aims to measure only the achievements to be completed with financing from OPE

⁴ The baseline value refers to WWTPs completed with the financial assistance from ISPA Programme.

for agglomerations of settlement with **PE** between 2000 and 10000 and (2) construction/extension/reconstruction/ of sewage networks within the same agglomerations. These interventions might be supported, where proven justification for improving the quality and/or quantity of the drinking water supplied exists, with the relevant components (according to the specific needs of the same agglomerations) for construction/reconstruction/extension of water supply networks, new water storage tanks, main water supply pipes connecting the water supply networks with the water sources for ensuring provision of required water quantity and/or quality, pumping stations, as well as construction/reconstruction/modernization of drinking water treatment plants, as well as the necessary rehabilitation activities aiming at minimization of the water supply and storage losses.

- (3) As a **third priority** within the present priority axis financing could receive operations, which contain only part(s) of the following components:
 - construction/reconstruction/modernization of wastewater treatment plants as well as extension/reconstruction of sewage networks in agglomerations of settlements with (1) more that 10000 PE and (2) with PE between 2000 and 10000.
 - Construction/reconstruction/extension of water supply networks, new water storage tanks, main water supply pipes connecting the water supply networks with the water sources for ensuring provision of required water quantity and/or quality, pumping stations, as well as construction/reconstruction/modernization of drinking water treatment plants in agglomerations of settlements with (1) more that 10000 PE and (2) with PE between 2000 and 10000.
- (4) As a **fourth priority** within the present priority axis the following shall be financed: (1) the construction/reconstruction/modernization of wastewater treatment plants, where necessary, for settlements with **PE below 2000 located within urban agglomeration areas** and (2) construction/extension/reconstruction/ of sewage networks within the same settlements. These interventions might be supported, where proven justification for improving the quality and/or quantity of the drinking water supplied exists, with the relevant components (according to the specific needs of the same settlements) for construction/reconstruction/extension of water supply networks, new water storage tanks, main water supply pipes connecting the water supply networks with the water sources for ensuring provision of required water quantity and/or quality, pumping stations, as well as construction/reconstruction/modernization of drinking water treatment plants, as well as the necessary rehabilitation activities aiming at minimization of the water supply and storage losses. In addition, financing could be provided for operations, which contain only part(s) of the abovementioned components within the same settlements.
- (5) Activities, related to supply of equipment for the detection and measurement of leakages, as well as to the provision of the facilities for sludge treatment from urban waste water treatment plants. These will be supported only within the framework of projects for new and/or extension, reconstruction and modernization of existing sewerage systems, including urban WWTPs.
- (6) Development and updating of river basins management plans. The river basins management plans for each of the four river basin management directorates will be prepared within this activity. The river basins management plans for each of the four river basin management directorates will be prepared within this activity. Special emphasis will be placed on prevention activities for protection against natural disasters. The river basin management plans will be integrated with the disaster protection plans (operational protection from the negative effect of

waters). The integration will include also the introduction of contemporary information systems aiming at real time management of the water plants in the country.

(7) Development of investment projects for subsequent financing within priority 1 of OP "Environment 2007 – 2013".

The activities described above will be additionally grouped and elaborated (in a separate document) into measures for the implementation of the OP, with all the necessary and associated components.

A significant prerequisite for the successful implementation of these activities and objectives is the establishment and implementation of adequate new legislation, which shall regulate the ownership of the water management systems and facilities. This is also a condition for the realization of various forms for the provision of the needed investments (for instance the public–private partnership). Additionally, investment in ecological infrastructure is expected to lead to improvement in the investment climate in the regions and respectively to increase in the income levels of the population. This in turn will create more opportunities for setting aside more financial means for operation and maintenance of the infrastructure financed by the EC. Encouragement of public-private partnerships (and other forms of investments and facilities management) and the general economic growth will provide sustainability and protection of investments in the basic infrastructure by OP "Envrionment 2007-2013" will be protected and this will be done in accordance with the social affordability ratios.

In addition to the integrated water management approach supported by the OP "Envrionment 2007-2013", the programme will support the development of a strong scientific and technological capacity in order to achieve sustainable management of water. This will be achieved by OPE offering an opportunity for a possible future co-financing together with research funds of innovative projects in the area of sustainable development of the water resources in compliance with the policy of using Structural Funds for innovative projects. Furthermore, during the evaluation process a priority will be given to projects, ensuring the participation of the Water Supply and Sewerage Companies and research funds in order to provide for significant multiplication of knowledge and capacity building.

1.5 Sources of financing:

- Cohesion fund the financial assistance from the fund will be maximum 80% of total eligible expenditure. With regards to net revenue-generating projects, according to Regulation 1083/2006, the maximum rate of support from the EU funds will be calculated in compliance with the requirements of articles 55 (revenue generating projects) and article 53 (eligibility of expenditure). In addition, the amount of support to be granted will take into account the affordability ratios and solidarity principles.
- National funds the co-financing of the EU funds through the State Budget shall be minimum 20% of the total eligible expenditures at the level of the current priority as well as at the project level.
- Involvement of IFIs additional financial support is expected to be provided by IFIs EIB, EBRD etc. On October 10, 2006 the Government of Republic of Bulgaria and the European Investment Bank signed a Memorandum of Understanding for the Development and Financing of Infrastructure. According to the memorandum the EIB would provide (through individual loans or through global loans) 500 700 million euro annually for the period 2007 2013 for supporting the Bulgarian investment plans in the area of transport and basic infrastructure. Through the existing credit products EIB could provide financial resources for co-financing SF/CF projects in the frame of the present OP. The contribution

of the EIB could be maximum 50% of the total investment costs. In 2006 the state has approved the state guarantees for EIB financing 3 integrated water projects related to the improvement of the water cycle in the cities of Sliven, Vratza and Gabrovo. These are expected to be considered for financing under priority 1 of OP "Environment 2007-2013". EIB is ready to consider its participation in PPP projects already drafted, as well as to support the Bulgarian government in the elaboration of future PPP projects.

■ **JASPERS**²⁰ **Initiative** - it provides an additional financial and professional support for the correct preparation of projects in the environmental sector to be further financed by the EU SF/CF.

1.6 Categorization of funds assistance²¹

According to the Categorization of Structural funds assistance 2007-2013, the present priority comes under the scope of:

- Code No. 45 Management and distribution of water (*drinking water*)
- Code No. 46 Water treatment (waste water)
- Code No. 81 Mechanisms for improving good policy and programme design, monitoring and evaluation at national, regional and local level, capacity building in the delivery of policies and programmes.

1.7 Beneficiaries:

Municipal administrations, Water Supply and Sewerage Companies (WSSC) and River Basin Management Directorates.

According to the Agreement signed between the Ministry of Environment and Water and the Ministry of Regional Development and Public Works, the MA of OP "Environment 2007-2013" shall obligatory require from the municipalities – beneficiaries of priority axis 1 to include the relevant to the particular operation (project) representatives of the Water Supply and Sewerage Companies in the process of:

- Preparation of the operation (project) as the representative of the Water Supply and Sewerage Companies covered by the respective operation (project) obligatory support the preparation of the related technical and financial documentation to the relevant operation (project) for example feasibility studies, financial sand socio-economic analysis, preliminary/technical/working designs,. The support is performed with presentation of information and expert standpoints on particular documents on the one side and concordance of final variant of elaborated documents on the other side;
- Implementation of the operation (projects) as the representatives of the Water Supply and Sewerage Companies covered by the respective operation (project) obligatory participate in the administration of operation (project) implementation as a result of which they concord in writing each request for funds prepared by the municipality beneficiary to the IB of OPE.

_

²⁰ A joint initiative of EC, EBRD and EIB, signed financial memorandum with Bulgaria 2006

²¹ In Council Regulation 1083/2006 codes for expenditure in regard to the environment are not outlined. The outlined codes are according to Commission Regulation 1828/2006, setting out the detailed rules for the application of the Council Regulation 1083/2006 and of the Regulation 1080/2006.

1.8 Coordination with other programming documents²² for period 2007 - 2013

With regards to the water sector, the implementation of OP "Environment 2007-2013" will aim at achieving compliance with the requirements of the European environmental aquis in the field of water, and implementation of the commitments that Bulgaria has undertaken during the negotiation process for EU membership (especially the achievement of the requirements of Directive 91/271/EC). It will be also directed towards solving essential problems in the water supply sector.

On the other hand, the **OP** "Regional Development" within priority axis 1 "Sustainable and integrated urban development" will be financing activities and infrastructure aiming at risk prevention and more specifically those aiming at flood prevention and fighting with the landslides such as establishment and reinforcement of infrastructure for prevention against floods and landslides, (i.e. dikes, barrages and other supportive facilities); machinery for maintaining the flood defense lines, machinery for dikes and river-beds prevention of harmful vegetation; small infrastructure measures combating banks' erosion, creating small reservoirs for water retention, weirs, etc.; setting-up and introduction of hydraulic structures for reducing or eliminating floods and its consequences; rehabilitation and construction of drainage facilities and infrastructures. With regard to water supply and sewerage sector the OP "Regional development" will finance, where necessary, only components related to construction, reconstruction and rehabilitation of water supply and sewage connections and sections, connecting the main networks to separate objects of economic and social infrastructure, eligible for intervention and falling within the scope of the priorities and operations of OP "Regional Development".

The Rural Development Programme also stipulates activities for improvement of the water sector. In the framework of this Programme will be financed:

- Construction/reconstruction/rehabilitation of water supply and sewerage infrastructure in settlements, where the PE is below 2000 inhabitants only in rural areas (in 231 rural municipalities).
- Rehabilitation and construction of drainage installations and small infrastructure for flood protection and banks erosion on the territory of the agricultural farm.

Furthermore, due to the fact that a significant assistance from **Phare** to projects in the similar areas as OPE will still be implemented in Bulgaria predominantly during the years 2007-2009, the necessary measures will be taken in order to prevent potential overlaps. Furthermore, the interventions of the OPE will complement those to be implemented under **the two European Territorial Cooperation programmes** (the Transnational cooperation programme "South east European Space" and the Interregional cooperation programme "INTERREG IV C") and the interventions to be financed by **the cross-border programmes** Bulgaria-Romania, Bulgaria-Greece, Bulgaria-Serbia, Bulgaria-FYROM and Bulgaria-Turkey.

_

²² The other operational programmes, the National Strategic Plan for Rural Development and the accompanied Rural Development Programme, the National Strategic Plan for Fisheries and Aquaculture and the accompanied programme "Fisheries and Aquaculture".

2 Priority axis 2: Improvement and development of waste treatment infrastructure

2.1 Rationale and description of priority axis

The priority is designed to achieve compliance with a number of EU directives, whose requirements are transposed into the national legislation. The priority is mainly designed to achieve compliance with Directive 75/442/EEC on waste and Directive 1999/31/EC on the landfill of waste.

The hierarchy of waste management has been formulated by the 1996 Community Strategy for Waste Management. It describes the operations and activities with regards to waste management in the following preferred sequence:

- (1) Prevention of waste generation by reducing the quantity and/or concentration of dangerous substances in the accumulated waste.
- (2) Reuse/Recycling/Recovery by:
 - reuse multiple use of materials or products for the same or different purposes;
 - recycling recycling of waste and its use as raw material for production of same or different products;
 - recovery by employing for composting, energy recovery, or other relevant technologies;
- (3) Disposal of waste by means of landfilling or incineration without recovery of energy, in cases no other alternatives are available.

The purpose of the hierarchy is to provide a model for integrated waste management approach, whose application in the pointed out sequence will contribute to the establishment of a sustainable waste management policy.

In Bulgaria, the Waste Management Act regulates a hierarchy for the waste management, which sets as:

- priority 1 prevention of waste generation;
- priority 2 utilization of waste by reuse, recycling, and/or extraction of secondary raw materials and energy;
- priority 3 final disposal by means of landfilling or incineration of waste that cannot be prevented and/or utilized;

The generation and treatment of municipal and construction waste is still a problem, which threatens the quality of the environment and represents a risk both for the environment and for the human health. The current levels of waste generation are high and their integrated waste treatment shall be encouraged within the present priority through the implementation of activities in an integrated manner, which comply with the above-described hierarchy for waste management. In addition to the activities described below, the priority shall also finance the preparation and update of regional plans for integrated waste management as a precondition for implementing integrated waste management schemes.

Up to now, the waste landfilling has been the preferred method of waste treatment in Bulgaria. The present priority shall also focus on the introduction of new models for management of municipal,

construction and demolition waste, which also shall contribute to the reduction of the total quantity of landfilled waste as well as to their environmentally sound recovery.

The incineration of waste is not a common practice in the country. Furthermore, a substantial part of the existing installations for incineration does not comply with the requirements of the legislation and the modern technical standards. There are no installations for incineration of municipal waste in the country. The main reasons for that should be sought in the high costs for construction of such a facility compared to cost of the existing practice of waste landfilling; the relatively low caloricity of the mixed municipal waste in the country and the limited financial opportunities of the municipalities for investments in the municipal infrastructure for waste treatment.

During the last years the advantages and disadvantages of the waste energy recovery have been broadly discussed. Despite the potential risks the usage of waste as an alternative fuel and/or its incineration with energy recovery could be an applicable possibility with actual benefits for the environment and the national economy. The incineration of waste shall be performed only in installations, which are in compliance with the requirements of the legislation and thus the highest level of environmental protection shall be guaranteed. The emitted heat shall be recovered to the greatest possible extent. Taking into consideration the fact that the present levels of usage of waste energy recovery are negligible, initiatives and investments will be supported in this sphere. The waste with high energy content, which is not suitable for recycling shall be orientated towards incineration with energy recovery.

At present, a significant part of the existing landfills for household waste serving the settlements with organized waste collection does not comply with the requirements of the national and EU legislation. Landfills constructed, reconstructed, modernized and put into operation after 1997 are an exception. Due to the potential risk that they impose, it is of first priority to remediate them in order to guarantee their future operation or to close and replace them with new facilities as envisaged in the Implementation Programme for Directive 1999/31/EC on landfilling of waste.

In the past few years, a National Programme for Reducing the Number and Risk of Landfills and Past Contaminations with Waste was developed. As a first stage it focuses on the solid waste landfills. A register of landfills and past contaminations with waste was created within the framework of the National Environmental Monitoring Network (NEMN), maintained by the Executive Environmental Agency, where information for over 275 landfills has already been entered. Methodology for prioritization was developed, and fifty nine (59) existing landfills for household waste, serving settlements with population of over 20 000 inhabitants (i.e. approximately 70% of the country's population) have been investigated, inventoried, assessed and prioritized on the basis of the assessed risk for the environment (water and soil) and the associated risk to human health. The results showed that, on one hand, most of the landfills do not comply with the current technical requirements for such facilities, and on the other hand, they are located within the country in such a way that they are imposing high health and ecological risk. The inventoried landfills are categorized into four groups, according to the risk they impose:

```
    a. I – st group – very high risk – 12 landfills;
    b. II – nd group – high risk – 17 landfills;
    c. III – rd group – medium risk – 28 landfills;
    d. IV – th group – minimum risk – 2 landfills
```

Twelve of the existing landfills for household waste serving settlements with population over 20 000 inhabitants (including 3 of very high risk, 2 of high risk and 7 of medium risk) are expected to be closed by the end of 2006. The closure of the remaining 47 landfills could be financed under the OP "Environment 2007 -2013".

The staged re-cultivation and closure of the existing landfills for household waste, which do not comply with the requirements of the legislation and the current technical standards, will be bound by the putting into operation of relevant new regional facility/installation for treatment of household waste. Priority will be given to landfills that impose higher risk to the environment and human health.

Approximately 21% of the total budget of the present OP has been devoted to this priority axis. This would provide for approximately 57% coverage of the needed financial resources as identified in the relevant programmes for the components included in the present priority axis.

2.2 Objective of priority axis

The general objective of the priority axis is to:

- improve the waste management in the country in compliance with the defined hierarchy for waste management (prevention, utilization and final treatment).
- improve the soil and groundwater condition and to decrease the part of the country's territory covered with existing landfills for household waste.

The priority axis shall also aim at providing conditions for environmentally friendly treatment of construction and demolition waste. This shall be achieved through the improvement and development of waste treatment infrastructure and the decrease of the quantity of landfilled waste.

2.3 Indicators for implementation of the priority axis

The following result and output indicators are identified, with the purpose of measuring progress on implementation of the priority axis.

Table 15: Indicators for Priority axis 2

| Definition of indicators | Unit of measurement | Baseline data 2007 | Mid-term data (2010) | Data at the end of period - 2013 | Sources of information | | |
|---|---------------------|-----------------------|-------------------------|-------------------------------------|--|--|--|
| | Result indicators | | | | | | |
| Population served by integrated waste management systems | number | 467 000 | 1 983 264 | 3 967 000 | MOEW, beneficiary, project application forms, progress reports of the approved projects | | |
| | | | | | | | |
| Constructed and completed integrated waste management systems | number | 55 | 12 | 27 | MOEW, beneficiary, project application forms | | |

2.4 Typology of activities within the priority axis

The following indicative types of activities are envisaged for funding under this priority axis:

⁵ The baseline value refers to integrated waste management systems completed with the financial assistance from ISPA Programme.

- (1) Completion the construction of systems of affordable²³ regional facilities/installations for municipal waste treatment having sufficient capacity for the country's purposes in the 54 waste management regions (for example regional landfills and transfer stations);
- (2) Construction of affordable facilities for pre-treatment including composting, sorting, and separation of waste, in parallel with putting into operation of the newly constructed municipal waste regional landfills;
- (3) Construction of waste recycling centers in parallel with putting into operation of the new municipal waste regional landfills;
- (4) Construction of installations for recovery of the emitted gas emissions (methane) from the municipal waste landfills for the production of electricity;
- (5) Construction of regional facilities for recycling of construction and demolition waste;
- (6) Staged decommissioning and consequent rehabilitation and closure of existing municipal landfills that do not comply with the requirements of the legislation and the modern technical standards. The closure of these municipal landfills will be considered together with putting into operation of the relevant new regional facility/installation of municipal waste treatment;
- (7) Preparation/review and update of regional/municipal waste management plans;
- (8) Development of investment projects for subsequent financing within priority 2 of OP "Environment 2007–2013".

The activities described above will be additionally grouped and elaborated (in a separate document) into measures for the implementation of the OP, with all the necessary and associated components.

2.5 Sources of financing:

2.5 Sources of infancing

- European Regional Development Fund the financial assistance from the fund will be maximum 85% of total eligible expenditure. With regards to net revenue-generating projects, according to Regulation 1083/2006, the maximum rate of support from the EU funds will be calculated in compliance with the requirements of articles 55 (revenue generating projects) and article 53 (eligibility of expenditure). In addition, the amount of support to be granted will take into account the affordability ratios and solidarity principles.
- National funds the co-financing of the EU funds through the State Budget shall be minimum 15% of the total eligible expenditures at the level of the current priority as well as at the project level.
- Involvement of IFIs additional financial support is expected to be provided by IFIs EIB, EBRD etc. On October 10, 2006 the Government of Republic of Bulgaria and the European Investment Bank signed a Memorandum of Understanding for the Development and Financing of Infrastructure. According to the memorandum the EIB would provide (through individual loans or through global loans) 500 700 million euro annually for the period 2007 2013 for supporting the Bulgarian investment plans in the area of transport and basic infrastructure. Through the existing credit products EIB could provide financial resources for co-financing SF/CF projects in the frame of the present OP. The contribution of the EIB could be maximum 50% of the total investment costs. EIB is ready to consider

²³ Here and elsewhere in the text the term "affordable" is used from the point of view of the population concerned.

its participation in PPP projects already drafted, as well as to support the Bulgarian government in the elaboration of future PPP projects.

■ **JASPERS**²⁴ **Initiative** - it provides additional financial and professional support for the correct preparation of projects in the environmental sector to be further financed by the EU SF/CF.

In case of necessity originating from the EU Regulations, the support for the development of a project (as a separate operation within the priority) to be presented for financing under this priority at a later stage, could be limited to 3% from the total budget of the priority axis.

2.6 Categorization of funds assistance²⁵

According to the Categorization of Structural funds assistance 2007-2013, the present priority comes under the scope of:

- Code No. 44 Management of household and industrial waste.
- Code No. 50 Rehabilitation of industrial sites and contaminated land
- Code No. 81 Mechanisms for improving good policy and programme design, monitoring and evaluation at national, regional and local level, capacity building in the delivery of policies and programmes.

2.7 Beneficiaries:

Municipal administrations, regional associations/associations of municipalities;

2.8 Coordination with other programming documents²⁶ for period 2007 - 2013:

With regards to the waste sector, the implementation of OP "Environment 2007-2013" will aim at achieving compliance with the requirements of the European Environmental aquis in the field of waste, and implementation of the commitments that Bulgaria has undertaken during the negotiation process for EU membership (in particular, ensuring compliance with the following Directives: Directive 75/442/EEC on waste, Directive 99/31/EC on the landfill of waste, and Directive 2000/76/EC on waste incineration).

On the other hand, the Rural Development Programme also foresees measures for improvement of waste management sector. Specifically, it will finance the construction of carcass collection facilities, incinerators, and other types of infrastructure for agricultural waste treatment.

FurthermoreHowever, due to the fact that a significant assistance from **Phare** to projects in the similar areas as OPE will still be implemented in Bulgaria predominantly during the years 2007-2009, the necessary measures will be taken in order to prevent potential overlaps. Furthermore, the interventions of the OPE will complement those to be implemented under the **two European**

²⁵ In Council Regulation 1083/2006 codes for expenditure in regard to the environment are not outlined. The outlined codes are according to Commission Regulation 1828/2006, setting out the detailed rules for the application of the Council Regulation 1083/2006 and of the Regulation 1080/2006.

²⁴ A joint initiative of EC, EBRD and EIB, signed financial memorandum with Bulgaria 2006

²⁶ The other operational programmes, the National Strategic Plan for Rural Development and the accompanied Rural Development Programme, the National Strategic Plan for Fisheries and Aquaculture and the accompanied programme "Fisheries and Aquaculture".

Territorial Cooperation programmes (the Transnational cooperation programme "South east European Space" and the Interregional cooperation programme "INTERREG IV C") and the interventions to be financed by **the cross-border programmes** Bulgaria-Romania, Bulgaria-Greece, Bulgaria-Serbia, Bulgaria-FYROM and Bulgaria-Turkey.

3 Priority axis 3: Preservation and restoration of biodiversity

3.1 Rationale and description of priority axis

The implementation of this priority axis is directed towards preservation, restoration and support for the entire management of species and natural habitats within the National Environmental Network comprising protected areas and protected zones under NATURA 2000. The establishment of the National Environmental Network aims at conservation of priority natural habitats and priority species. In the cases of destroyed or highly affected habitats and species, measures are taken for the sake of their restoration, as in the typical case of wetlands, which are important habitats of various plant and animal species as well as for the migrating birds.

Management plans should be elaborated in order to improve the management of protected zones under NATURA 2000. The development of these plans is particularly needed in cases when various interests are involved, including different groups of stakeholders, regarding areas hosting habitats and species of Community importance. The management plans will determine the protected zones and the areas where different activities can be performed, as well as the specific measures regarding nature conservation.

In addition, any investment activities to be implemented in the protected areas and zones under NATURA 2000 should correspond to the specific conservation objectives and to the measures, defined by the management plans. The investment activities should not be financed and implemented in contradiction to the conservation objectives and the protected zones' management plans.

For the purposes of monitoring the progress in implementation of measures regarding the conservation of habitats under NATURA 2000, mapping of the natural habitats and assessment of their geographic distribution in the country shall be performed. The assessment report will provide basic information on the conservation status of the species and habitats covered by Directives 79/409/EEC and 92/43/EEC.

The establishment of NATURA 2000 network aims at conservation of species and habitats, and increasing public awareness is one of the means for achieving this objective. The public awareness regarding the importance of habitats and species will be raised through several campaigns.

Large number of species is endangered by various factors, therefore, urgent measures are needed in order to ensure their survival and conservation. These measures will be developed in separate action plans for all endangered species. The plans will set short-term and long-term measures for elimination of the negative factors affecting species and will ensure favorable conditions of their habitats.

Some of the significant habitats covered by Directive 92/43/EEC are strongly influenced by anthropological activities and thus implementation of measures and actions for their restoration is required. These measures could include restoration of wetlands or forestation with native species.

The invasive species are identified as a factor that endangers the survival of both species and habitats. Currently the data on invasive species collected at national level is quite insufficient, and therefore research in this filed will support the reduction of their negative impact. In addition, the research could also contribute to the development of guidelines for preventive actions and measures for future implementation.

The native ability of species to adapt to the changing environmental conditions (particularly related to climate change) also needs to be supported. Extreme weather events like increase in temperature, humidity changes, drought, floods etc. could result in extinction of species and deterioration of habitats, especially in cases when their ability to adapt is limited. Approximately 6% of the total budget of the present OP has been devoted to this priority axis.

With Decision № 122/ 2nd of March 2007 the Council of Ministers reviewed the documentation of the sites proposed by the Ministry of Environment and Water for inclusion into the national list of Natura 2000 sites. From the proposed 196 proposed Sites of Community Importance (pSCIs) and 109 Special protection Areas (SPAs) the Council of Ministers officially approved 180 pSCIs and 88 SPAs to be included into the national list of Natura 2000 sites. The rest of the sites were postponed with the Decision № 122 for further inventory as CM found the documentation incomplete. The inventory should be completed by October 2007 and the results should be submitted to the National Biodiversity Council – a consultative body, which includes representatives of the ministries and central-government departments, research and academic institutes, non-governmental and conservationist organizations concerned and is the first instance for approval of potential Natura 2000 sites. Together with 16 pSCIs and 21 SPAs postponed with the decision of CM another 29 pSCIs and 5 SPAs, postponed by the National Biodiversity Council in September and November 2006, will be reviewed.

The "postponing" of these sites was due to insufficient information related to species, habitats or coverage of the sites. Thus, no one of the sites from the scientific proposal - 225 pSCIs and 114 SPAs, was rejected but some of them (45 pSCIs and 26 SPAs) were postponed for further inventory.

The process is expected to be finalized in the end of 2007 and Bulgaria to submit the full list of Natura 2000 sites to EC.

According to the national legislation – the Biodiversity Act, Bulgarian SPAs should be designated within one year after their approval by the CM.

In line with the requirements of the Habitats Directive the pSCIs approved by the EC should be designated as Special Areas of Conservation (SACs) within 6 years after the accession date. This process depends also on the Commission's approval of the submitted list of pSCIs.

3.2 Objective of the priority axis

The main objective of the priority axis is to reduce and halt the loss of biodiversity in the country.

The objective shall be pursued by developing the national NATURA 2000 network, and by ensuring sustainable management, preservation, and restoration.

3.3 Indicators for implementation of the priority axis

The following result and output indicators are identified, with the purpose of measuring progress on implementation of the priority axis.

Table 16: Indicators for Priority 3

| Definition of indicators | Unit of measurement | Baseline data (2007) | Mid-term data (2010) | Data at the end of period (2013) | Sources of information |
|--|---------------------|----------------------|-------------------------|----------------------------------|--|
| |] | Result indicators | | | |
| Percentage of total NATURA 2000 (protected zones and protected areas) to be mapped/managed | % | 0 | 2.6 | 8 | MOEW, beneficiaries – project application forms, progress reports of approved projects. |
| | (| Output indicators | | | |
| Number of mapped protected areas and zones of NATURA 2000 network | number | 0 | 14 | 44 | MOEW, beneficiary – project application forms; progress reports of approved projects |
| Number of elaborated management plans for protected areas and zones of NATURA 2000 network | number | 0 | 14 | 44 | MOEW, beneficiary – project application forms; progress reports of approved projects |

3.4 Typology of activities within the priority axis:

The following indicative types of activities are envisaged for funding under this priority axis:

- (1) Development and update of the management plans for protected areas and zones of NATURA 2000 network. This would include the complete spectrum of scientific studies/detailed inventories necessary for the finalization of the site designation processes. This includes also condition assessments and mapping of the NATURA 2000 habitats and their geographic distribution in the country, and elaboration of a report on the favorable conservation status of the species and habitats covered by Directive 79/409/EEC and 92/43/EEC. The supportive meetings, workshops, hiring research personnel and assembly of databases are also envisaged as well as research programmes to define the effectiveness of the plans developed. Consultation with the relevant stakeholders and organization of the necessary meetings for discussions and workshops would also be possible for financing.
- (2) Increasing the awareness of municipalities and the public on NATURA 2000 network²⁷ (e.g. preparation and initiation of information campaigns and the necessary publicity materials (handbooks, brochures, maps), seminars, workshops, communication materials for training, capacity building activities, conduction of surveys for the level of awareness on related topics when needs are identified as reasonable/justifiable).
- (3) Establishment of the management bodies for designated NATURA 2000 sites and their further support with a view to strengthen the administrative capacity and the efficiency of the public administration. This would include start—up funding, feasibility studies, management and institutional studies, establishment of communication networks, setting up and maintenance of web—pages, exchange of best practices. Acquisition of equipment is also envisaged when required for the establishment and running of the management bodies (e.g. office and IT equipment, monitoring materials, diving equipment, cameras etc.)

_

²⁷ These type of activities are not targeted to specific group/s such as farmers, fisherman, etc. stakeholders that might be affected by the management plan for a NATURA 2000. Their needs shall be covered by other financial instruments/programmes (e.g. Rural Development Programme).

- (4) Implementation of activities (including investment projects and equipment purchases) in line with the identified needs (measures) in approved management plans of (1) protected zones of NATURA 2000 network (2) protected areas related to preservation and restoration of habitats and regulated use of species (i.e. included in the approved management plans). These activities can be:
 - directly related and necessary for the management of protected zones and protected areas as well as for the attainment of favorable preservation status for habitats and species (for example, the restoration of wetlands, maintenance of high-mountain grasslands, assistance for nest success of endangered bird species, etc. including also infrastructure projects);
 - related to the sustainable use of resources in protected areas and protected zones (for example, the establishment of eco-pathways, establishment/reconstruction of information/visitors centers, signage, trials observations platforms, providing easy access of disability people to natural assets/monuments within the boundaries of these sites, purchase of land²⁸ installation of signs and notice boards, etc.).
- (5) Financing actions related to protection and restoration of the biodiversity in the country such as development of action plans for all endangered species of global/European significance, and implementation of the activities included in the plans; implementation of activities for restoration of destroyed and anthropogenically influenced habitats, studying the impact of invasive species and implementation of activities for limitation of their negative impact.
- (6) Implementation of activities reducing the climate change impact on biodiversity. This would include for example financing research project aiming at testing new management method that would support the protection of the biodiversity and the environment in a broader sense (e.g. comparison of different grassland management regimes to determine which gives better benefits to native butterflies and moths across the country; comparison across Europe is also possible).
- (7) Development of future projects for subsequent financing within priority 3 of OP "Environment 2007–2013" (e.g. terms of references, feasibility, technical, institutional and other studies, design preparation etc.)

The activities described above will be additionally grouped and elaborated (in a separate document) into measures for the implementation of the OP, with all necessary and associated components.

3.5 Sources of financing:

- European Regional Development Fund the financial assistance from the fund will be maximum 85% of the total eligible expenditure. With regards to net revenue-generating projects, according to the Regulation 1083/2006, the maximum rate of support from the EU funds will be calculated in compliance with the requirements of articles 55 (revenue generating projects) and article 53 (eligibility of expenditure).
- National funds the co-financing of the EU funds through the State Budget shall be minimum 15% of the total eligible expenditures at the level of the current priority as well as at the project level.

²⁸ In accordance with eligibility rules for the Structural and the Cohesion Funds for 2007 – 2013 (Council Regulation 1083/2006 and of the Regulation 1080/2006 for ERDF).

3.6 Categorization of funds assistance²⁹

According to the Categorisation of Structural Fund assistance for 2007-2013, the priority axis falls within the scope of the following category:

- Code No. 51 Promotion of biodiversity and nature protection (including NATURA 2000)
- Code No. 81 Mechanisms for improving good policy and programme design, monitoring and evaluation at national, regional and local level, capacity building in the delivery of policies and programmes

3.7 Beneficiaries:

Municipal authorities, associations of municipalities, directorates within the Ministry of environment and water and within the Ministry of Agriculture and Food Supply that are responsible for managing national and natural parks respectively, as well as other units within these two ministries that are involved in/responsible for the management of NATURA 2000 sites and protected areas, NATURA 2000 management administrations, non–governmental organizations.

3.8 Coordination with other programming documents ³⁰ for period 2007 - 2013:

With regard to sector "biodiversity and protection of nature", the implementation of OP "Environment 2007-2013" will aim at achieving compliance with the requirements of the Community environmental legislation on National Environmental Network, composed of protected areas and protected zones under NATURA 2000 (and in particular at meeting the requirements of the following Directives: 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitat Directive) and 79/409/EEC on the conservation of wild birds (Birds' Directive).

On the other hand, the Rural Development Programme foresees activities for improvement of the agricultural sector. In particular, under this programme the compensation for the agricultural producers and private forest owners, whose land is included in the National Environmental Network NATURA 2000 shall be provided. This will be of substantial importance for the implementation of the measures for conservation of different habitats and species, included in the respective orders for sites designation and management plans for protected areas and zones. The programme shall support tourism activities as well as activities directed towards the promotion of natural/cultural monuments of local importance. For all tourism activities financed under Axis 3 of the RDP and falling in the NATURA 2000 sites, the respective projects, before their approval, will be checked for compliance with the provisions of the Bio-Diversity Law and the respective secondary legislation for its implementation as well as the envisaged restrictions in the orders for the site designation and management plan. The Rural Development Programme shall also support the sustainable use of forests in order to protect the environment and to preserve the rural landscape. The envisaged measures for forestation of cultivated and uncultivated land will support the fight against wind and water erosion, the desertification and the decrease of adverse consequences of climate warming. The country forestation will be improved and the sources for renewable energy

²⁹ In Council Regulation 1083/2006 codes for expenditure in regard to the environment are not outlined. The outlined codes are according to Commission Regulation 1828/2006, setting out the detailed rules for the application of the Council Regulation 1083/2006 and of the Regulation 1080/2006 (from 31 July 2006).

³⁰ The other operational programmes, the National Strategic Plan for Rural Development and the accompanied Rural Development Programme, the National Strategic Plan for Fisheries and Aquaculture and the accompanied programme "Fisheries and Aquaculture".

will increase. The restoration of the production potential and the introduction of preventive measures for private forest owners will significantly contribute to the protection against forest fires.

OP "Regional development" also will render financial assistance for revival of natural and cultural attractions of tourists' interest. The programme shall provide sources for enhancement of natural/cultural monuments of **national importance** on the whole territory of the country, development of regional tourism products and destination marketing. For all tourism activities financed under Priority 3 of the OP RD and falling in the NATURA 2000 sites, the respective projects, before their approval, will be checked for compliance with the provisions of the Bio-Diversity Law and the respective secondary legislation for its implementation as well as the envisaged restrictions in the orders for the site designation and management plan.

Furthermore, due to the fact that a significant assistance from **Phare** to projects in the similar areas as OPE will still be implemented in Bulgaria predominantly during the years 2007-2009, the necessary measures will be taken in order to prevent potential overlaps. Moreover, the interventions of the OPE will complement those to be implemented under **the two European Territorial Cooperation programmes** (the Transnational cooperation programme "South east European Space" and the Interregional cooperation programme "INTERREG IV C") and the interventions to be financed by **the cross-border programmes** Bulgaria-Romania, Bulgaria-Greece, Bulgaria-Serbia, Bulgaria-FYROM and Bulgaria-Turkey.

4 Priority axis 4: Technical Assistance

4.1 Rationale and description of the priority axis

Technical assistance within the framework of the OP will provide support for the programme management, implementation, monitoring, control, and evaluation as well as for publicity measures, programme promotion and exchange of experience. All activities related to the effective administration of the OP (preparation, management, monitoring, control and evaluation.) have to be in compliance with the Council Regulation 1083/2006 laying down general provisions on the ERDF, ESF and the CF. This priority will support the realization of the activities, as well as all studies, considered by the Managing Authority as necessary for the successful Programme and priorities implementation.

Additionally, the effective realization of the OP requires the existence of a specific capacity for project preparation and implementation (incl. management) in sector "environment". This priority axis will also support the strengthening of the existing capacity in the country, as well as the existing capacity of the structures involved in the general management system of the OP and at last but not least the municipalities as main beneficiaries and other beneficiaries identified under priority axes 1, 2 and 3. Approximately 2.7% of the total budget of the present OP has been devoted to this priority axis.

4.2 Objective of the priority axis

Main objective of the priority axis is the effective management of OP "Environment 2007-2013" in order to improve the absorption capacity within the Programme.

4.3 Typology of activities within the priority axis:

The following indicative types of activities are envisaged for funding under this priority axis:

- (1) Activities will aim at **providing the necessary support for the OP implementation.** The general activities are related to:
 - Assessment (appraisal) of submitted projects and their selection/prioritization (including organization of the sessions of the Project Selection and Coordination Committee);
 - Organization and holding the meetings of the OP Monitoring Committee (and of the working groups/sub-committees within the Monitoring Committee);
 - Collecting and analyzing data for the OP implementation and monitoring;
 - Financing of the needed human resources, involved exclusively in the implementation of strictly defined tasks for OP management, implementation, monitoring, evaluation, publicity, information, control and audit (in accordance with the national rules developed);
 - Carrying out OP audits and controls and other relevant expenditure (i.e. expenditure, related to on-the-spot checks of operations implemented in the OP);
 - Providing the necessary equipment for the OP implementation and management;
 - Preparing, organizing and carrying out trainings for strengthening the capacity of the Managing Authority, Intermediate Body, Internal Audit Directorate, Monitoring Committee (and its sub-committees) and Project Selection and Coordination Committee within the OP;
 - Implementing studies, experts reports, statistics, tests and evaluations, including those of a general nature, concerning the operation of the OP, as well hiring external expertise for improvement of the OP implementation system and for preparation of the programming documents for the next programming period.
 - Support for the implementation of future projects (especially those by which infrastructure is envisaged) under the priorities 1, 2 and 3 of the OP, including: (1) necessary studies for assessing the technical and managerial needs with respect to the assets to be constructed as part of the respective priority, (2) identifying the necessary training needs and the costs assigned to them and (3) providing training to the beneficiaries of the respective priority in order to strengthening their capacity in projects preparation, submission, tendering, contracting and sound implementation and management of the approved projects as well as further proper operation and maintenance of the delivered assets.
- (2) Activities will aim at providing the necessary support for publicity and promotion of the **OP.** The general activities are related to:
 - Preparation, organization and implementation of the OP communication plan, including the envisaged OP publicity and information and dissemination measures; development and maintenance of OP web-page, informing potential beneficiaries about the available assistance under the programme and the results of its implementation; setting up of an information office (center); hiring of needed human resources for information and publicity activities;
 - Preparation, translation and dissemination of the official programming documents related to OP overall management and implementation (e.g. the approved OP, Programme Complement, guidelines/manuals/explanatory notes, etc, leaflets and other information packages) to potential beneficiaries and/or the public;

(3) Development of future projects for subsequent financing within priority 4 of OP "Environment 2007-2013".

The activities described above will be additionally grouped and elaborated (in a separate document) into measures for the implementation of the OP, with all the necessary and associated components.

4.4 Sources of financing:

- European Regional Development Fund. The assistance from the fund will be maximum 85% of the total eligible expenditures;
- National funds the co- financing of the EU funds through the State Budget shall be minimum 15% of the total eligible expenditures at the level of the current priority as well as at the project level.

4.5 Categorization of funds assistance³¹

According to the Categorization of Structural funds assistance 2007-2013, the present priority axis comes under the scope of:

- Code No. 81 Mechanisms for improving good policy and programme design, monitoring and evaluation at national, regional and local level, capacity building in the delivery of policies and programmes;
- Code No. 85 Preparation, implementation, monitoring and inspection
- Code No. 86 Evaluation and studies; information and communication;

4.6 Beneficiaries:

OP Managing Authority, Intermediate Body, Monitoring Committee,/subcommittees, Project Selection and Coordination Committee, Internal Audit Directorate within the Ministry of Environment and Water, working groups established for the purposes of the OP, Beneficiaries under Priorities 1, 2 and 3.

4.7 Coordination with other programming documents³² for period 2007 - 2013:

With regard to this priority axis, OP "Environment 2007-2013" will provide support for the programme management, implementation, monitoring, control, and evaluation as well as for publicity measures, programme promotion and exchange of experience. OPE will support the strengthening of the existing capacity of the municipalities as main beneficiaries and other beneficiaries identified under priority axes 1, 2 and 3 by providing training activities related to the specifics and technicalities of the OPE.

³¹ In Council Regulation 1083/2006 codes for expenditure in regard to the environment are not outlined. The outlined codes are according to Commission Regulation 1828/2006, setting out the detailed rules for the application of the Council Regulation 1083/2006 and of the Regulation 1080/2006.

³² The other operational programmes, the National Strategic Plan for Rural Development and the accompanied Rural Development Programme, the National Strategic Plan for Fisheries and Aquaculture and the accompanied programme "Fisheries and Aquaculture".

On the other hand, training activities for local and regional authorities regarding the general principles related to receiving financial assistance from the Structural Funds and the Cohesion Fund of the European Union such as public procurement, audit trail, verification of expenditures, financial management and control, horizontal principles etc. are included within the **Operational Programme "Technical Assistance".**

Furthermore, due to the fact that a significant assistance from **Phare** to projects in the similar areas as OPE will still be implemented in Bulgaria predominantly during the years 2007-2009, the necessary measures will be taken in order to prevent potential overlaps.

F. Compliance with Community policies and EU legislation

In accordance with the requirements of Council Regulation 1083/2006, OP "Environment 2007 - 2013" is consistent with Community policies and priorities. The document is elaborated in cooperation with the administrative, and social and economic partners in order to attain better quality of the programme and effective implementation of the objectives, stated within its framework.

OP "Environment 2007-2013" is developed in accordance with the Community guidelines on cohesion, thus reflecting the objectives of the renewed Lisbon agenda on growth and job creation. The OP implementation shall contribute to improving the attractiveness of urban areas and ensuring adequate quality and level of services. The development of environmental infrastructure is a precondition for sustainable economic growth and better quality of life of the population

OP "Environment 2007-2013" is consistent with the EU environmental policy and reflects the objectives, defined in Article 174 of the Treaty and the Sixth Community Environment Action Programme. In line with the renewed EU Sustainable development strategy, the programme shall support integrated water resources management, promotion of re-use and recycling, conservation of natural resources and thus shall contribute to improving the management and to avoiding overexploitation of natural resources, recognizing the value of ecosystem services.

All operations, financed under OP "Environment 2007-2013", should comply with the EU and national legislation in the field of environmental protection, competition, state aid and public procurement. In the framework of the OP the principles of partnership, sustainable development and equal opportunities should be respected and applied.

1 Partnership

According to the EU Regulations for Cohesion Fund and Structural Funds OP "Environment 2007 -2013" is prepared in cooperation and consultations with the administrative and social and economic partners. For its elaboration a working group was established including representatives of line ministries, municipalities, district administrations, environmental non-government organizations, organizations of and for disabled people, scientific organizations, and representatives of the employers, syndicates and business.

The implementation of the partnership principle was extended through participation of the working group representatives in open public forums for discussion and reaching consensus on the main objectives and priorities of the different OPs and achieving coherence among them and with the National Development Plan.

The partnership principle should also be applied during the implementation, monitoring and evaluation of the OP. The participation of the administrative, social and economic partners identified during the OP preparation is guaranteed through the development of the working group into a Monitoring Committee of OP "Environment 2007-2013". It will monitor the progress in the achievement of the OP objectives and thus will guarantee the effectiveness and quality of its implementation.

2 Sustainable development

The Bulgarian policy in sector "Environment" is directed towards the promotion of a balanced, harmonious and sustainable development. For the purpose of overcoming the main threats to

sustainable development, the Gothenburg strategy identifies objectives and measures in order to limit climate change and increase the use of clean energy, raise consciousness of the threats to human health, manage natural resources more responsibly and improve the transport system and land-use management. In June 2006 a renewed Sustainable development strategy was adopted setting overall objectives in terms of climate change and clean energy, sustainable transport, sustainable production and consumption, addressing public health threats, better management of natural resources, social inclusion, demography and migration and fighting global poverty.

The Sixth Community Environment Action Programme setting the environmental priorities of the Community aims at:

- stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;
- protecting, conserving, restoring and developing the functioning of ecosystems, natural habitats, wild flora and fauna in order to halt desertification and the loss of biodiversity by 2010, including diversity of genetic resources;
- achieving high quality of life and social welfare of the citizens by safeguarding an environment where the level of pollution does not give rise to harmful effects on human health and the environment, and by encouraging sustainable urban development. This aim should be pursued by achieving high quality of ground and surface water and air quality, sustainable use of water and water resources; substitution of dangerous chemicals by less hazardous chemicals or safer alternative technologies, reduction of the negative impacts and achieving more sustainable use of pesticides, substantial reduction of the number of people regularly exposed to noise pollution;
- better resource efficiency and resource and waste management to bring about more sustainable production and consumption patterns, thereby decoupling the use of resources and the generation of waste from the rate of economic growth and aiming to ensure that the consumption of resources does not exceed the carrying capacity of the environment. In order to attain this goal, the indicative task is to ensure that by 2010 22% of the electricity within the European Community will be produced by renewable energy sources. For that purpose, it is necessary to achieve a significant reduction of the volume of waste for disposal and of hazardous waste, safe waste treatment and disposal, and to encourage re-use of waste;

Laying down the framework for the EU environmental policy and implementing Article 6 of the Treaty, the Sixth Community Environment Action Programme shall contribute to the integration of environmental protection requirements into all Community policies. Ensuring public participation in decision-making process and ensuring access to information on the environment are essential for the successful implementation of the Programme.

In compliance with the EU environmental policy and the National strategy for Environment 2005-2014 aims at:

- solving global environmental problems: implementing the commitments under the Kyoto Protocol and the United Nations Framework Convention on Climate Change; phasing-out chemical substances and preparations depleting the ozone layer; confining and confronting the processes of desertification and land degradation;
- protecting natural heritage and maintaining the wealth of biodiversity, conserving and restoring biological diversity and halting the loss of biodiversity by 2010; ensuring

sustainable use of natural resources, conservation and restoration of natural habitats and ecosystems, conservation of the diversity of species, of the genetic biodiversity and ensuring biological safety;

- attaining and maintaining high quality of urban environment by achieving compliance with the EU air quality standards; improvement of waste management, including through implementation of systems for separate collection, following re-use and recycling of waste; improvement of the physical urban environment; reduction of noise pollution and development of sustainable and environmentally friendly urban transport systems;
- providing good quality and sufficient quantity of water, including through utilization of water resources by the economic and public sectors;
- closer integration of the environmental policy into the sectoral and regional policies: pollution reduction and prevention of future impacts of industry and energy sectors on the environment; increasing the use of renewable energy sources and improvement of energy efficiency, environmentally friendly management of hazardous waste and substances, minimizing the environmental risks resulting from old contaminations; implementation of environmentally friendly practices in agriculture and protection of non-polluted areas; development of sustainable tourism and environmentally friendly transport systems with reduced impact on the environment;
- effective management of the environment, including by strengthening the administrative capacity of the institutions responsible for the enforcement of the environmental legislation, involving the public in the process of decision-making related to environmental protection, and extending the access to information.

As a tool for the implementation of the national environmental policy, OP "Environment 2007 - 2013" formulates objectives and priorities whose implementation shall result in reduction of water pollution and improvement of the quality of the drinking water by means of construction, reconstruction, extension and modernization of water supply and sewerage networks and urban WWTP and DWTP; more effective waste management and promotion of waste re-use and environmentally sound utilization; halting the loss of biodiversity through conservation and restoration of the species and natural habitats. In this respect, the implementation of the OP is directed to the fulfillment of the Community environmental priorities.

The implementation of OP "Environment 2007-2013" shall support the application of the requirements of EU legislation, as well as the promotion of urban areas' attractiveness and the preservation of their environmental potential. Investments in environmental infrastructure are connected to sustainable economic growth and job creation. They also contribute to promoting convergence and increasing the competitiveness of regions.

Furthermore, in the framework of the Regions for Economic Change initiative the Managing Authority of OP "Environment 2007-2013" commits itself to:

- a. make the necessary arrangement to welcome into the mainstream programming process innovative operations related to the results of the networks in which the region is involved;
- b. allow in the Monitoring Committee (or programming committee) the presence of a representative (as an observer) of the network(s) where the Region is involved, to report on the progress of the network's activities;

- c. foresee a point in the agenda of the Monitoring Committee (or programming committee) at least once a year to take note of the network's activities and to discuss relevant suggestions for the mainstream programme concerned;
- d. inform in the Annual Report on the implementation of the regional actions included in the Regions for Economic Change initiative.

The implementation of OP "Environment 2007-2013" will lead to better quality of life. The construction of the necessary infrastructure for water supply and for waste water collection, discharge and treatment, and infrastructure for waste treatment shall contribute towards the overcoming of health-and-ecological risks, as well as towards the provision of quality environmental services to citizens. The activities aimed at preservation, restoration and support of the overall management of species and natural habitats contribute to more responsible management of natural resources, thus contributing to the achievement of the objectives of the EU Strategy for Sustainable Development.

OP "Environment 2007-2013" aims at improvement, preservation and recovery of natural environment and at development of Bulgaria's environmental infrastructure, thus leading to improvement of quality of life and to promoting investment opportunities in the economy. Therefore, the realization of the OP shall contribute to achieving the strategic goals of the National Strategic reference framework, focused on achieving high and sustainable growth and higher employment.

3 Environment protection

The national environmental policy reflects the EC principles for protection and improvement of the environment and the protection of human health, including the principles: "the polluter pays", "publics' right to know", and "preventive action". These principles form the basis of the current Bulgarian environmental legislation.

The Environment Protection Act transposes the requirements of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, thus establishing the legislative framework for integration of the requirements for environmental protection into the sectoral and regional policies.

Strategic environmental assessment (SEA) aims at identifying possible significant effects of the plan/programme on the environment in national and trans-boundary context and its potential effect on the human health. Within the established legislative procedure, the initiator of the plan or programme bears the responsibility for the preparation of the SEA report. The SEA is carried out in parallel with the preparation of the respective plan/programme and prior to its final adoption. It seeks to ensure compliance of the plan/programme with the national environmental policy's objectives and priorities and with the international commitments undertaken by the country. In order to ensure transparency of the decision-making process related to environment protection, consultations with the competent authorities of central and local governance and with the general public concerned are to be carried out in the framework of the overall SEA procedure.

In accordance with the provisions of the European and national environmental legislation, OP "Environment 2007-2013" is a subject to SEA. The purpose is to identify, describe and assess both the effects of the OP on the environment and its contribution to sustainable development.

For the purpose of ensuring proper application of the preventive action principle, the Environment Protection Act envisages also a procedure for assessment of the impact on environment of investment proposals for construction, activities and technologies, which is in compliance with the requirements of EU legislation and Convention on Environmental Impact Assessment in Transboundary Context, ratified by the Republic of Bulgaria. The above procedure will be applied during the implementation of OP "Environment 2007-2013". The operations financed within the framework of the OP, that fall within the scope of Directive 85/337/EEC, amended and supplemented by Directive 97/11/EC, will be subject to environmental impact assessment (EIA).

4 Equal opportunities

The operations financed under OP "Environment 2007 - 2013" shall be implemented by observing the principles of promotion of equal opportunities and prevention of all forms of discrimination, stipulated in the harmonized with the *aquis* Bulgarian legislation.

For the purpose of ensuring an effective application of the principle of equal opportunities, Bulgaria has transposed the *acquis communautaire* in its national labour and anti-discrimination legislation. Non-discriminatory provisions are also introduced in legislative acts such as the Social Security Code, Law on Stimulating the Employment, Law on Protection, Rehabilitation and Social Integration of People with Disabilities, Law on Health and Safety at Work and the Law on Protection against Domestic Violence.

The Labour Code incorporates all provisions of the Bulgarian labour legislation. The Law amending and supplementing the Labour Code, in force since 01.08.2004, introduces additional guarantees for granting equal rights to individuals on temporary and permanent labour contracts and those employed part-time and full-time; prohibits discrimination arising from differences in the duration of labour contracts and the duration of the working day, and obliges the employers to provide the workers and civil servants with timely access to information on vacancies. The adopted amendments enable new types of leaves for rising up a child to a certain age, which can be used under equal conditions by both parents and by the adoptive mother and father.

The Law on Protection against Discrimination constitutes the legal framework of the Bulgarian antidiscrimination legislation. Its provisions are in conformity with the international agreements in the field of human rights, to which Bulgaria is a party. The Law on Protection against Discrimination seeks to safeguard equality of individuals before the law, equality of treatment and of opportunities for participation in the public life, as well as effective protection against discrimination. It reflects the requirements of EU Directives by defining direct and indirect discrimination, prosecution (victimization), inducement to discrimination, sexual harassment and racial segregation.

The control over the Law's enforcement is entrusted to the Commission of Protection against Discrimination that has competences in the field of detecting infringements, imposing sanctions and issuing opinions on the compliance of draft legal acts with the Law on Protection against Discrimination.

A National Council on Equality between Women and Men has been established by Decree № 313 of Council of Ministers from 26.11.2004 as a permanent body to the Council of Ministers. The Council carries out consultations, cooperation and coordination between the governmental institutions and nongovernmental organizations during the process of elaboration and implementation of the national policy of equality between sexes. The Council is chaired by the Minister of Labour and Social Policy in his/her capacity of central body of the executive power, which elaborates, organizes, coordinates and controls the realization of the governmental policy in

the field of social protection and social inclusion of vulnerable groups and promotion of equal opportunities between women and men. The National Council for Cooperation on Ethnic and Demographic Issues, established by Decree № 333 of Council of Ministers from 10.12.2004, is an advisory and coordinating body, supporting the activities of the Council of Ministers related to ensuring effective equal treatment between all Bulgarian citizens, irrespective of their ethnic origin.

The integration of the principle of equal opportunities in OP "Environment 2007-2013" encompasses all measures and activities during the period of planning, implementation, monitoring and evaluation that directly influence or contribute to the promotion of equality between women and men and the integration of disadvantaged groups. During the programming process, the Ministry of Labour and Social Policy has been constituted as a partner in the working group for the elaboration of the OP. Representatives of the National Council of and for Disabled People, branch organizations and nationally represented organizations of employers and employees are also involved as social partners. Same mechanism of representation will be applied also when establishing the Monitoring Committee for OP "Environment 2007-2013".

The actual application of the equal opportunities principle during the implementation of the OP "Environment 2007-2013" will be ensured by indicators designed to plan and assess the contribution of operations to the promotion of equal opportunities, where it is applicable and appropriate. It will be included also in the criteria for assessment of operations funded under OP "Environment 2007-2013".

5 Protection of competition

Pursuant to Art.19, paragraph 2 of the Constitution of the Republic of Bulgaria, the legislation establishes and guarantees equal legal conditions for all citizens and legal entities to develop economic activity through preventing abuse of monopoly position and unfair competition and by protecting the consumer. The Act on Protection of Competition, in force since 8th May 1998, establishes conditions for promoting competition and the free initiative in the economy. It contains provisions for protection against prohibited agreements, decisions and concerted practices, abuse of monopolistic and dominant position on the market, concentration of economic activities, unfair competition and other activities which can lead to forestalling, restriction or distortion of the free competition.

A Commission on protection of competition has been established in order to ensure the Law enforcement. Its competences cover execution of control, detecting infringements and imposing sanctions to the offenders. Thereby, the Commission regulates the establishment of proper conditions for free economic initiative in an actual competitive environment. Decisions enacted by the Commission on protection of competition are subject to sole judicial control from the Supreme Administrative Court.

A Law amending and supplementing the Act on Protection of Competition was adopted in 2003, addressing both the necessity for improving the existing anti-monopoly legislation and the need for its more complete harmonization with the EU legislation. It supplements the existing legal rules that regulate the counteractions against vertical and horizontal cartel agreements, abuse of monopolistic and dominant position and concentration of economic activities, and introduces the institute of "joint dominance". The powers of the Commission on Protection of Competition related to collecting information and evidence during the investigation process have also been extended.

5.1 Application of state aid rules

Any public support under this programme shall comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

Thus operations financed through OP "Environment 2007-2013" shall be implemented by observing the EU legislation on state aid as well as the Bulgarian regulatory framework which is harmonized with the *acquis*.

A new State Aid Act was adopted, in force from 1st January 2007, resulting from the necessity to introduce a new national legislative framework compliant with the provisions of the Treaty and EU Regulations which are directly applicable in Bulgaria after accession to the European Union.

Pursuant to the State aid Act the Minister of Finance is responsible for the coordination, observation and ensuring transparency of granting state aid except for state aid schemes and individual aid in agriculture and fisheries sectors where the competent national authority is the Minister of Agriculture and Forestry. The Minister of Finance issues opinions on the compliance of draft legal acts with the state aid legislation, provides advice the authorities granting state aid on the compatibility of the planned state aid with the legal requirements and proposes amendments where necessary, examines and transmits notifications to the European Commission, issues opinions on state aid granted under the group exemption regulations and on de minimis aid. Following its competences, the Ministry of Finance prepares a consolidated annual report for the state aid granted on the territory of Republic of Bulgaria, and submits it to the National Assembly, to the Council of Ministers and the European Commission. It is also responsible for the elaboration and the notification of the Bulgarian regional state aid map and its submission to the EC.

The Minister of Finance maintains and updates a Central Register of State aid, which contains information on the proposed and granted aid at national, regional and municipal level. The Register also contains data on granted *de minimis aid* for the purposes of exercising effective control over the fixed thresholds and preventing possible accumulation of state aid over the permissible limits to the advantage of a certain enterprise.

The provisions of Article 87 and Article 88 of the Treaty and the Council and Commission Regulations laying down rules for state aid are directly applied with the accession of Bulgaria in the EU. The EC will posses the exclusive authority in relation to the assessment and control of the state aids compatibility with the Common market.

The Managing Authority will bear the responsibility for the compatibility of each operation with the state aid rules after the adoption of the OP "Environment 2007-2013" by the EC. Therefore, the Managing authority shall consult the Ministry of Finance on the procedure to be applied in order to ensure that the EU and national legislation on state aid is respected. During the implementation of the programme the Managing Authority will observe the adherence to the set limits, the application of the de minimis rule and the application of the group exemptions in the sense of 994/1998 Council Regulation.

6 Public procurement

The operations financed under OP "Environment 2007-2013" should be performed through observing the Bulgarian legislation in relation to the rules on public procurement which is harmonized with EU legislation.

The legislation of Republic of Bulgaria in the field of public procurement fully transposes the requirements of the new Directives 2004/18 and 2004/17 of the European Union. A new procurement regulatory framework was established with the adoption of the Law amending the Public Procurement Act (SG No. 18/28.02.2006) and the secondary legislation based on the principles of free and fair competition, publicity and transparency, equal treatment and non-discrimination. It contains provisions introducing the competitive dialogue procedure, new means of information and communication exchange and effective remedies system. Every decision, action or lack of action on the part of the Bulgarian contracting entities in the public award procedure is subject to legal review before the Commission for the Protection of Competition.

The Public Procurement Law and the legislative acts adopted under it for the purpose of its implementation contain provisions, that determine those categories of works, supplies and services obligatory for public procurement, types of procedures and conditions for the selection of procedure for awarding a certain public contract, methods for determining the value of the contract for public procurement, criteria for assessment of the offers (the lowest price or most economically favorable offer) and the specific circumstances under which the candidates should be eliminated from the participation in the notified procedure. It provides guarantees that ensure free access for all economic operators to the information regarding the public procurement procedures on the country's territory.

In compliance with the EU Directives specific rules are established for award of public contracts by assignors carrying out activities in the fields of water supply, power supply, transport and postal services. The Public Procurement Law gives contracting entities the possibility to stipulate additional requirements for the implementation of the public contracts, related to environmental protection, unemployment and new job-creation for disabled people. This possibility is conceded in the framework of the general prohibition for providing advantage and for unreasonable restriction of participation of economic operators in the public procurement procedure.

In order to ensure accurate and equal application of the Law, a Public Procurement Agency is established to the Minister of Economy and Energy, which issues methodological instructions, elaborates standard forms, collects and summarizes the existent practice and monitors the public procurement system, coordinates training activities on the public procurement legislation, supports the process of e-procurement and promotes best practices. The Agency is also responsible for the establishment and maintenance of a Public procurement register and for the submission of information to the European Commission.

In accordance with the commitments of Republic of Bulgaria under Chapter 21 "Regional policy and coordination of structural instruments", the Managing authority of OP "Environment 2007-2013" bears the responsibility for the establishment of a clear/explicit and transparent system for carrying out the procedures for awarding public contracts, which should guarantee the application of the relevant principles and requirements. The Public Internal Financial Inspection and the National Audit Office perform the control on the effective and accurate functioning of the system.

G. Financial plan of OP "Environment 2007 - 2013"

The OP "Environment 2007-2013" financial plan is based on the financial plan included within the approved by the Council of Ministers on 21.12.2006 Bulgarian National Strategic Reference Framework 2007-2013. The OP "Environment 2007-2013" implementation will be co-financed by two EU funds: the Cohesion Fund (contribution of approximately EUR 1,027 million) and the European Regional Development Fund (contribution of approximately EUR 439 million).

Pursuant to the EC Regulations for the new programming period the co-financing ceilings from these two funds shall not exceed the following allocations per project:

- 85% of the public expenditure for projects financed by the Cohesion Fund under the "Convergence" objective. At present the envisaged allocation (within the NSRF and the OP) from the Cohesion Fund at a priority level is 80% of the total eligible costs.
- 85% of the public expenditure for projects financed by the European Regional Development Fund under the "Convergence" objective.

The implementation of OP "Environment 2007-2013" will be financed also by national resources amounting to EUR 334,3 million and which represent 20% national co-financing for to the CF allocation and 15% co-financing to the ERDF allocation. The total financial package for the implementation of the OP "Environment 2007-2013" amounts to EUR 1 800 748 085 . The appropriation allocated under each priority within this financial package is as follows:

- To Priority 1 Improvement and development of water and waste water infrastructure in settlements over 2000 PE are allocated 71.3% of the total financial resources of the OP. The priority shall be funded by the Cohesion Fund.
- To Priority 2 Improvement and development of waste treatment infrastructure are allocated 20.4% of the total financial resources of the OP. The priority shall be funded by the European Regional Development Fund.
- To Priority 3 Preservation and restoration of biodiversity are allocated 5.80% of the total financial resources of the OP. The priority shall be funded by the European Regional Development Fund.
- To Priority 4 Technical Assistance is allocated 2,5% of the total financial resources of the OP. The priority shall be funded by the European Regional Development Fund.

The financial allocation for the OP as a whole has been decided mainly on the basis of the top-down approach. The financial allocation between the identified priority axes has been decided mainly on the basis of the combination of the two approaches:

- top-down approach, resulting from the accomplishment of the deadlines established for the commitments undertaken during the negotiation process.
- the bottom-up approach resulting from feasible project proposals prepared within the MOEW for financing under ISPA.

For the weighting of relative importance attributed to each priority, the following considerations were made:

- The OP will be implemented over a limited period (2007-2013) and with limited financial resources, therefore it cannot tackle all the problems faced by the environmental sector in the country and therefore an investment prioritization was also considered.
- The provisions of the new acquis are observed, particularly indicating that:
 - o During the 2007-2013 programming period, the Structural and Cohesion Funds programmes fix only long term global objectives and focus on a limited number of priorities (named priority axes), likely to have a more significant impact.
 - One priority axis should be financed only from one Fund in the case of the present OP this means either the Cohesion Fund or the European Regional Development Fund.
- The extent of co-financing resources from national budget and IFI loans is to be approved by the Ministry of Finance.
- The complementarity with the other OPs developed in the country has been taken into consideration and the financing of the same type of projects within more than 1 OP has been avoided.

During the elaboration of the financial plan are taken into account also the requirements for accession as resulted from negotiations for Chapter 22, which are particularly demanding, especially with regards to the implementation of the EU Directives in the water and waste sectors within the negotiated transition periods.

The proposed annual distribution of funds has been made taking into account both the experience gained in project management within pre-accession instruments and the issues related to the absorption capacity of funds.

The **EU** financial contribution to the OP "Environment 2007-2013" will be performed in conformity with the financial plan presented in the next table.

Table 17: Financial Plan of EU commitments by year and by EU Fund in EUR

| | Structural Funds (ERDF) | Cohesion Fund | Total |
|---|----------------------------|---------------|-----------------|
| | (1) | (2) | (3) = (1) + (2) |
| 2007 | | | |
| In regions without transitional support | 31 930 906 | 77 155 481 | 109 086 387 |
| In regions with transitional support | 0,00 | 0,00 | 0,00 |
| Total for 2007 | 31 930 906 | 77 155 481 | 109 086 387 |
| 2008 | | | |
| In regions without transitional support | 46 742 728 | 110 588 301 | 157 331 029 |
| In regions with transitional support | 0,00 | 0,00 | 0,00 |
| Total for 2008 | 46 742 728 | 110 588 301 | 157 331 029 |
| 2009 | | | |
| In regions without transitional support | 63 645 630 | 148 728 173 | 212 373 803 |
| In regions with transitional support | 0,00 | 0,00 | 0,00 |
| Total for 2009 | 63 645 630 | 148 728 173 | 212 373 803 |
| 2010 | | | |
| In regions without transitional support | 67 065 959 | 156 534 424 | 223 600 383 |
| In regions with transitional support | 0,00 | 0,00 | 0,00 |

| | Structural Funds (ERDF) | Cohesion Fund | Total |
|---|----------------------------|---------------|-----------------|
| | (1) | (2) | (3) = (1) + (2) |
| Total for 2010 | 67 065 959 | 156 534 424 | 223 600 383 |
| 2011 | | | |
| In regions without transitional support | 71 800 591 | 167 300 064 | 239 100 655 |
| In regions with transitional support | 0,00 | 0,00 | 0,00 |
| Total for 2011 | 71 800 591 | 167 300 064 | 239 100 655 |
| 2012 | | | |
| In regions without transitional support | 76 561 641 | 178 127 402 | 254 689 043 |
| In regions with transitional support | 0,00 | 0,00 | 0,00 |
| Total for 2012 | 76 561 641 | 178 127 402 | 254 689 043 |
| 2013 | | | |
| In regions without transitional support | 81 311 753 | 188 932 428 | 270 244 181 |
| In regions with transitional support | 0,00 | 0,00 | 0,00 |
| Total for 2013 | 81 311 753 | 188 932 428 | 270 244 181 |

In Table 18, as a financial plan, for each priority axis are shown: (1) the total amount of EU Funds co-financing – Cohesion Fund and European Regional Development Fund, (2) the total amount of National Public co-financing, (3) the total amount of financing for each priority and (4) the rate of contribution from EU Funds.

Table 18: Financial Plan (EU + National Public financing) by priority of the OP for 2007 – 2013 in EUR

| | Financing | National Public Co- | Total funding | Rate of EU | For information | |
|---|---------------|------------------------|----------------|--------------|-----------------|---------------|
| | from EU | financing | Total fullding | contribution | EIB funding | Other funding |
| | (1) | (2) | (3)=(1)+(2) | (4)=(1)/(3) | | |
| Priority axis 1: Improvement and development of water and wastewater infrastructure in settlements with over 2000 PE and in settlements below 2000 PE within urban agglomeration areas - CF | 1 027 366 273 | 256 841 568 | 1 284 207 841 | 80% | | |
| Priority axis 2: Improvement and development of waste treatment infrastructure – ERDF | 311 732 038 | 55 011 536 | 366 743 574 | 85% | | |
| Priority axis 3: Preservation and restoration of biodiversity ERDF | 87 811 841 | 15 496 207 | 103 308 048 | 85% | | |
| Priority axis 4: Technical Assistance - ERDF | 39 515 329 | 6 973 293 | 46 488 622 | 85% | | |
| TOTAL | 1 466 425 481 | 334 322 604 | 1 800 748 085 | | | |

In addition to the above information, Table 19 presents also the financial contribution from National Private Financing Resources for each priority axis of the OP.

Table 19– Financial Plan (EU + National Public financing + National Private financing) by priority of the OP for 2007 – 2013 in EUR

| | Financing | National | National | Total funding | Rate of EU | For information |
|--|-----------|------------|----------|----------------|------------|-----------------|
| | from EU | Public Co- | Private | Total fullding | Funds | |

| | | | | | | EIB | Other |
|---|---------------|-------------|-----|-----------------|-------------|---------|---------|
| | | | | | | funding | funding |
| | (1) | (2) | (3) | (4)=(1)+(2)+(3) | (5)=(1)/(4) | | |
| Priority axis 1: Improvement and development of waste treatment infrastructure in settlements with over 2000 PE and in settlements below 2000 | 1 027 366 273 | 256 841 568 | 0 | 1 284 207 841 | 80% | | |
| PE within urban | | | | | | | |
| agglomeration areas - | | | | | | | |
| Priority axis 2: Improvement and | | | | | | | |
| development of waste | 311 732 038 | 55 011 536 | 0 | 366 743 574 | 85% | | |
| treatment infrastructure - ERDF | | | | | | | |
| Priority axis 3: | | | | | | | |
| Preservation and restoration of biodiversity - ERDF | 87 811 841 | 15 496 207 | 0 | 103 308 048 | 85% | | |
| Priority axis 4: Technical Assistance - ERDF | 39 515 329 | 6 973 293 | 0 | 46 488 622 | 85% | | |
| TOTAL | 1 466 425 481 | 334 322 604 | 0 | 1 800 748 085 | | | |

For the purpose of information and in accordance with art. 37 (d) of Regulation 1083/2006 a table including an indicative breakdown of total expenditure by category using the codes already defined in the OP within each priority is included as an annex (Annex 1) in the present version of the OP (January 2007).

H. Institutional framework for implementation of OP "Environment 2007 – 2013"

I. Main bodies included in the framework

1 Managing Authority

The Managing Authority for the OP "Environment 2007–2013" has been defined with Council of Ministers Decree No 965/16.12.2005 This is the **Directorate "Cohesion Policy for Environment" within the Ministry of Environment and Water.** The Managing Authority shall be responsible for overall programme implementation. It shall delegate certain tasks on the implementation to the Directorate "EU Funds for Environment" within the Ministry of Environment and Water (see Intermediate Body below).

The Managing Authority shall be responsible for managing and implementing the OP in accordance with the principle of sound financial management and in particular for³³:

- ensuring that operations are selected for funding in accordance with the criteria applicable to the OP and that they comply, for their whole implementation period, with applicable Community and national rules;
- verifying the delivery of the co-financed products and services and that the expenditure declared by the beneficiaries for operations has actually been incurred and complies with Community and national rules; on-the-spot verifications of individual operations may be carried out on a sample basis in accordance with the detailed rules to be adopted by the Commission in accordance with the procedure referred to in Article 103(3) of Regulation 1083/2006;
- ensuring that there is a system for recording and storing in computerized form accounting records of each operation under the OP and that the data on implementation necessary for financial management, monitoring, verifications, audits and evaluation is collected;
- ensuring that beneficiaries and other bodies involved in the implementation of operations maintain either a separate accounting system or an adequate accounting code for all transactions relating to the operation without prejudice to national accounting rules;
- ensuring that the evaluations of OPs referred to in Article 48(3) are carried out in accordance with Article 47 of Regulation 1083/2006;
- setting up procedures to ensure that all documents regarding expenditure and audits required to ensure an adequate audit trail are held in accordance with the requirements of article 90 of Regulation 1083/2006;
- ensuring that the certifying authority shall receive all necessary information on the procedures and verifications carried out in relation to expenditure for the purpose of certification;

_

³³ According to art. 60 of Regulation 1083/2006.

- guiding the work of the MC and providing it with the documents required to permit the quality of the implementation of the OP to be monitored in the light of its specific goals;
- drawing up and, after approval by the MC, submitting to the Commission the annual and final reports on implementation;
- ensuring compliance with the information and publicity requirements laid down in Article 69 of Regulation 1083/2006;
- providing the Commission with information to allow it to appraise major projects;

Taking into account the fact that the Managing Authority and Intermediate Body are located within one and the same institution (MOEW), as well as the necessity to have a separation of functions between these two bodies in order to provide for effective OP implementation, monitoring and control from a managerial and procedural point of view, and also taking account of the need to establish grounds for proper internal audit of the OP, the functions and tasks of the Managing Authority and Intermediate Body shall be formally established in order to settle the relations between them. Responsibilities for the Managing Authority and the Intermediate Body shall be established at the appropriate level of the Ministry's hierarchy (i.e. deputy ministers/directors) according to the provisions and principles of the EC Regulations and Bulgarian legislation.

2 Intermediate Body

According to article 59 (2) of Regulation 1083/2006, the member state may designate one or more intermediate bodies to carry out some or all of the tasks of the Managing Authority under the responsibility of that authority. For this purpose a written agreement needs to be signed between the MA and the designated IB³⁴.

The Intermediate Body for the OP "Environment 2007–2013" has been defined with Council of Ministers Decree No 965/16.12.2005 This is the **Directorate "EU Funds for Environment"** within the Ministry of Environment and Water. The Intermediate Body shall support the operative execution of the OP in accordance with the tasks delegated to it. Its main responsibilities will be related to preparation, implementation, monitoring, control and reporting activities..

3 Certifying Authority

The Certifying Authority for the OP "Environment 2007–2013" has been defined with Council of Ministers Decree No 988/27.12.2005 This is the **Directorate "National Fund" within the Ministry of Finance -** The Certifying Authority shall be responsible in particular for³⁵:

- drawing up and submitting to the Commission certified statements of expenditure and applications for payment;
- certifying that:
 - o the statement of expenditure is accurate, results from reliable accounting systems and is based on verifiable supporting documents,

³⁴ The agreement in reference is under preparation.

³⁵ According to art. 61 of Regulation 1083/2006.

- o the expenditure declared complies with applicable Community and national rules and has been incurred in respect of operations selected for funding in accordance with the criteria applicable to the programme and complying with Community and national rules;
- for the purposes of certification ensuring that it has received adequate information from the Managing Authority on the procedures and verifications carried out in relation to expenditure included in statements of expenditure;
- for the purposes of certification taking account of the results of all audits carried out by or under the responsibility of the Audit Authority;
- maintaining accounting records in computerized form of expenditure declared to the Commission;
- keeping an account of amounts recoverable and of amounts withdrawn following cancellation of all or part of the contribution for an operation. Amounts recovered shall be repaid to the general budget of the European Union, prior to the closure of the OP by deducting them from the next statement of expenditure.

4 Audit Authority

The Audit Authority for the OP "Environment 2007–2013" "has been defined with Council of Ministers Decree No 94/25.04.200 This is the **Directorate "Audit of EU Funds" within the Ministry of Finance** - The Audit Authority shall be responsible in particular for³⁶:

- ensuring that audits are carried out to verify the effective functioning of the management and control system of the OP;
- ensuring that audits are carried out on operations on the basis of an appropriate sample to verify expenditure declared;
- presenting to the EC within 9 months of the approval of the OP an audit strategy covering the bodies which will perform the audits, the method to be used, the sampling method for audits on operations and the indicative planning of audits to ensure that the main bodies are audited and that audits are spread evenly throughout the programming period;
- submitting to EC an annual control report setting out the findings of the audits carried out during the previous year in accordance with the audit strategy of the OP and reporting any shortcomings found in the systems for the management and control of the programme;
- submitting to EC at the latest by 31.12.2017 a closure declaration assessing the validity of the application for payment of the final balance and the legality and regularity of the underlying transactions covered by the final statement of expenditure, which shall be supported by a final control report;

The Audit Authority shall ensure that the audit work takes account of internationally accepted audit standards.

-

³⁶ According to art. 62 of Regulation 1083/2006.

5 Internal Audit Directorate

By virtue of Council of the Ministers Decree (promulgated State Gazette No. 85/20.10.2006) of the amending the Organic Rule of the MOEW an **Internal Audit Directorate** is established within the ministry, which is directly subordinated to the Minister of Environment and Water and performs the internal audit function in all structures, programs, activities and processes in the Ministry, including structures managing the EU funds and the lower level budget spending units.

6 Compliance Assessment Body

The functions of Compliance Assessment Body (single for all Operational Programmes in Bulgaria) under Article 71 of Regulation 1083/2006 will be performed by the "Audit of EU Funds" Directorate within the Ministry of Finance in accordance to CM Decision from August 2006. The "Audit of EU Funds" Directorate is responsible for making an assessment of the systems of the Operational Programmes and giving an opinion on their compliance with the provisions of Regulation 1083/2006. For the performance of the Compliance Assessment (including elaboration of methodology, performance of compliance assessment audits and elaboration of reports) of the Operational Programmes the "Audit of EU Funds" Directorate will be assisted by external experts/auditors.

7 Monitoring Committee

The implementation of the OP shall be monitored by Monitoring Committee (MC) established for this purpose. Procedural rules for MC functioning are developed by the MA of OP in accordance with art. 63 of the General regulation. On the side of the Bulgarian authorities the individual nomination of the different representatives from the various institutions/organizations is already made. The MC shall be officially established with a signature of order by the Minister of Environment an Water. The functions of the MC shall be in accordance with Regulation 1083/2006. The secretarial functions shall be performed by the MA. The MC shall consist of:

- chairperson (deputy minister of environment and water);
- members (representatives of the central administration, the regional and the local authorities, the social and the economic partners, the NGOs, representative of the EC with advisory role, according to EC regulation 1083/2006).
- observers (the IFIs (if projects are co-financed by them))

8 Projects Selection and Coordination Committee

A Projects Selection and Coordination Committee (PSCC) shall be set up for the purposes of OP "Environment 2007 – 2013". The main tasks of this body are:

 discussion and prioritization of projects that are already assessed with a view to prepare and suggest to the MA the list of projects to be approved for financing under the OP; • examining the projects that are already assessed from the point of view of (1) territorial coordination, (2) sectoral coordination (coordination with the other OPs³⁷ in terms of lack of overlapping of proposed activities for funding and coordination with other activities having similar/same aim).

The Committee will consist of representatives of the MA, representatives of competent departments of the MOEW, as well as line ministries/institutions of relevance for the OP, such as Ministry of Finance, Ministry of Agriculture and Food Supply, Ministry of Regional Development and Public Works and its IBs, Ministry of State Administration and Administrative Reform, etc.

As a result of its work the PSCC shall make the coordination and prioritization of projects to be funded under OP "Environment 2007-2013" on the basis of the OP budget for the particular year. After each session the PSCC shall prepare and submit to the Head of the MA of the OP a report for coordination and prioritization of projects, including a list of projects for funding under the OP "Environment 2007-2013" for final approval.

II. Distribution of tasks between the Managing Authority, Intermediate Body and Beneficiaries

1 Tasks of the Managing Authority

1.1 Preparation of programming document

- Organizes and coordinates the preparation of OP "Environment 2007-2013",including the
 establishment of a working group for its preparation, by respecting the partnership principle,
 and performs the functions of a Secretariat for the working group;
- Ensures the coordination of OP "Environment 2007-2013" with the National Strategic Reference Framework and the other programming documents for the respective programming period;
- Conducts the negotiations for the OP "Environment 2007-2013" with the responsible Commission services;
- Ensures the elaboration and if necessary the revision of the detailed rules³⁸ for the implementation of the OP "Environment 2007-2013"
- Ensures the ex-ante evaluation and the SEA of the OP "Environment 2007-2013";
- Ensures the preparation and revision, if necessary, of the Communication Plan of OP "Environment 2007-2013";
- Examines requests by the IB for amendments of the detailed rules for implementation of the operational program and submits justified requests to the Monitoring Committee

85

³⁷ In particular, OP "Regional Development"; OP "Administrative Capacity", OP "Development of competitiveness of Bulgarian Economy"; OP "Development of human resources"; National Strategic Plan for Agricultural and Rural Development

³⁸ Document substituting the Programme Complement applicable for the previous programming periods.

1.2 Preparation, selection and approval of operations for financing

- Ensures the development and approval (by the Monitoring Committee) of the project selection criteria, applicable for the OP "Environment 2007-2013";
- Organizes the preparation and publication of Guidelines for applicants, including templates
 of application forms, guidance for their completion, template of contract for financing,
 project selection criteria, as well as other requirements and conditions for submission,
 assessment and approval of project proposals from potential beneficiaries;
- Receives the project proposals, submitted by the potential Beneficiaries, registers them and checks for their submission within the deadline set;
- Sends to the IB the project proposals, that have been submitted within the deadline set for carrying out an assessment (covering assessment of administrative compliance (formal assessment), assessment of the eligibility of the candidate and the project activities and technical and financial assessment), pursuant to the project selection criteria, approved by the MC of the OP;
- Nominates observers in the commission for selection of operations, summoned by the IB
- Ensures the coordination, prioritization and selection of projects for funding under OP "Environment 2007-2013" by organizing and participating in the work of the Committee for Selection and Coordination of Projects
- On the basis of the Capacity Assessment Report prepared by the IB for the separate potential Beneficiaries, undertakes risk assessment and decides on the prevention and mitigation measures to be implemented, including the intensity of the verification checks to be carried out by the IB;
- Based on the decision of the Head of the MA for granting financial support, prepares, endorses and submits to the Minister of environment and water the draft contracts to be signed with the Beneficiary which include all conditions under which the beneficiary will receive the assistance from the EU funds, considering the results of the capacity assessment and risk prevention and mitigation measures proposed by the MA.
- Prepares and endorse the draft decision of the Minister for environment and water on granting financial support for beneficiaries, which are structures within the Ministry of environment and water

1.3 Programme implementation and financial management

- Bears responsibility for the good financial management of the operational program, incl. the transactions undertaken based on the commitments to the operational program
- Ensures the elaboration and distribution to the IB and potential Beneficiaries of necessary documents and guidance for the proper implementation and financial management of the Programme;
- On the basis of the verified documentation, submitted by the IB at measure level, prepares monthly requests for funds, statements of expenditure and payment verification reports at

OP level, as well as other documents, such as payment forecasts for the OP and irregularity reports, and submits them to the CA;

Prepares annual forecast for payments and submits it to the Certifying Authority

1.4 Verifications and audits

- Establishes written standards and procedures for verification checks to be carried out by the IB and keeps record of all verifications carried out;
- Verifies (through document-based checks) the documents submitted by the IB at measure level (including requests for funds, statements of expenditure, payment verification reports at measure level). In special and duly justified cases, the MA may perform document-based verifications on a sample of supporting invoices, presented by the Beneficiaries;
- Carries out on-the-spot checks on the IB, in order to ensure the proper implementation of the delegated tasks, as well as on Programme Beneficiaries, in special and duly justified cases;
- Monitors the implementation of the actions required/recommendation given to the Beneficiaries, as described in the verification reports (prepared by the IB after verification checks) and undertakes actions, if necessary;
- Ensures that an adequate audit trail is kept and appropriate documents are retained at the level of MA, IB and Beneficiary;
- Maintains archive (information) for the authorities storing the supporting documentation (all documents that are obligatory for adequate audit trail and their location) related to the expenditure and audits (in accordance with art. 19 of Commission Regulation 1828/2006 for the Implementation of Regulation 1083/2006);
- Provides access for the "Internal Audit" Directorate and other audit institutions during audits carried out and undertakes the necessary preventive and corrective measures recommended by the audit reports.

1.5 Monitoring and Reporting

- Receives and reviews the periodic monitoring reports at the level of measure, submitted by the IB;
- After approval of the IB reports, prepares a consolidated annual monitoring report for the OP in order to report the progress with OP implementation. The annual and final reports for the OP implementation are presented to the MC for approval and subsequently to the Commission;
- Collects and processes all the data necessary for monitoring of the OP measures and for the Programme as a whole and enters necessary information on measure and OP level into the MIS;
- Organizes and actively participates in the meetings of the MC and performs the functions of its Secretariat;

■ Ensures, if necessary, the execution of on-going evaluations linked to the monitoring of the OP;

1.6 Publicity and information

- Ensures the implementation of publicity measures at all levels of the OP in accordance with the Communication Plan of the Programme, as well as necessary consultation and advice to the IB on all aspects of information and publicity at measure level.
- Nominates person responsible for the publicity measures and notifies the EC in this respect
- Prepares and submits to the EC annual report on the operational program in accordance with Art. 67 of Regulation 1083/2006 and in compliance with Art. 4 of regulations 1828/2006

2 Tasks delegated to IB for implementation

2.1 Preparation, selection and approval of operations for financing

- Provides consultation and advice to the potential Beneficiaries on the development and submissions of project proposals, in compliance with the principles of transparency and equal treatment of Beneficiaries;
- Receives the project proposals that are submitted within the deadline set from the MA, summons the commission for selection of projects to be financed and undertakes assessment of the project proposals (covering assessment of administrative compliance (formal assessment), assessment of the eligibility of the candidate and the project activities and technical and financial assessment), pursuant to the project selection criteria, approved by the MC of the OP;
- Prepares written statement on the results of the assessment of projects and submits it to the MA
- Participates in the Committee for Selection and Coordination of projects
- Undertakes the necessary steps in order to ensure that the Beneficiary has observed the requirements of environmental protection, public procurement, competition rules and equal opportunities in project proposal and to prove the presence of the necessary co-financing on the side of the Beneficiary (if different from financing by the state budget);
- Undertakes, in parallel with the assessment of project proposals, a formal assessment of the potential capacity of the Beneficiary to procure and manage (administratively, technically and financially) the operation that is subject to approval and prepares Capacity Assessment Report that is submitted to the MA;
- Based on the decision of the Head of the MA for granting financial support, prepares the draft contracts to be signed with the Beneficiary of the approved project which include all conditions under which the beneficiary will receive the assistance from the EU funds,

considering the results of the capacity assessment and risk prevention and mitigation measures proposed by the MA.

2.2 Public procurement for operations

- Ensures, on behalf of the MA, the application of public procurement procedures by the Beneficiary in accordance with the respective national legislation on public procurement and provides consultation and advice to the beneficiary with regard to the implementation of public procurement procedures, when requested by the Beneficiary;
- Reviews and issues an opinion on the draft public procurement documentation prepared by Beneficiaries and presented before official launching of public procurement procedure(s) with regard to its legality and compliance with the Public Procurement Act and the respective EU legislation in the field;
- May participate, depending on the results of the risk assessment and the recommended mitigation measures by the MA, with assessors in the tender evaluation committees organized by the Beneficiaries;
- Based on the tender evaluation committee protocol/report, tenderers' offers and other documentation for the public procurement procedure(s) carried out, issues an opinion on the legality of the procedure and its compliance with the Public Procurement Act and the respective EU legislation in the field and makes written proposals to the MA for rejection/termination of financing of procured operations or procurement contract, signed as a result of this type of irregularities;

2.3 Programme implementation and financial management

- Receives from the MA documents and guidelines for the precise implementation and good financial management of the operational program
- Provides consultation and advice to the Beneficiaries during the implementation of the operations approved for financing on issues related to financial management, monitoring, reporting and technical implementation;
- Orders advance payments to beneficiaries, if this is envisaged in the Contract with the beneficiary
- Receives from the Beneficiaries requests for funds including statements of expenditure at project level, and project progress reports, accompanied with the respective supporting documentation;
- On the basis of the verified documentation of the beneficiary, prepares requests for funds, statements of expenditure and payment verification reports at measure level, as well as payment forecasts at measure level and irregularity reports, and submits them to the MA;
- Directly executes payments to Beneficiaries after the CA has approved/certified the expenditure documents, submitted by the MA and after the CA has granted the approval of the limit;

2.4 Verifications and Audits

- Undertakes, on behalf of the MA, verification checks that cover administrative, financial, technical and physical aspects of the operations carried out as appropriate. The verification checks includes (1) document—based checks of 100% of requested claims³⁹ and (2) on-the-spot checks on Beneficiaries based on the result of risk assessment by the MA. Notwithstanding the results of the risk assessment, each project funded under the Programme shall be subject of on-the-spot checks at least once during its implementation;
- After each verification check prepares Verification Findings Report and submits it to the Beneficiary for further actions and to the MA for information and monitoring purposes;
- Establishes and maintains comprehensive accounting system for recording and storing in computerized form information for all the transactions at operation level. This includes filing and archiving of financial data, supplementary documents and reports at the level of details as described in the Regulation 1083/2006 and Annex 3 of Commission Regulation 1828/2006 for its implementation;
- Collects and properly files the entire information related to the implementation of the OP measures, including the projects, in full compliance with the requirements of the European Commission and the national legislation;
- Ensures that expenditure documentation including all supporting documents is being kept by the Beneficiary for a period of 3 years following the closure of the OP;
- Provides access for the MA during verification checks and for the "Internal Audit"
 Directorate and other audit institutions during audits;
- Undertakes the necessary preventive and corrective actions, following the conclusions and recommendations in the verification reports of the MA and audit reports of the "Internal Audit" Directorate and other audit institutions;

2.5 Monitoring and Reporting

- Receives by the Beneficiaries periodic project monitoring reports-;
- Performs checks on the (1) content and conclusions of the reports and (2) the data that has been entered into the MIS as a basis for approving the submitted reports;
- After approval of the Beneficiary reports prepares measure monitoring reports for the purposes of reporting the progress on measure implementation (including the indicators) and submits them to the MA;
- Collects and possesses the data necessary for monitoring of OP measures and enters the necessary data into the MIS.

2.6 Information and publicity

 Assist the MA in the implementation of publicity measures, including development and maintenance of an internet site for the priorities for which tasks are delegated to the IB and

-

³⁹ CA requirement

provides consultation and advice to the Beneficiary concerning all aspects of publicity and information at the level of individual project;

3 Tasks for implementation by Beneficiaries

3.1 Preparation of project proposals

- Organizes the preparation of the relevant project proposals in accordance with the requirements of the Cohesion and Structural Funds applicable for OP "Environment 2007-2013" and the Guidelines for applicants issued for the respective procedure;
- Submits the prepared project proposals to the MA for approval of funding, in accordance with the Guidelines for applicants issued for the respective procedure;
- Submits upon request clarifications/additional information with regard to the project proposal during the assessment process with the view to correct inaccuracies in the project proposal, provided that the principles of equal treatment and non-discrimination are fully respected;
- After approval of the respective project for funding under the OP, participates in the preparation of the draft contract to be signed for the project implementation and subsequently signs the contract;

3.2 Public procurement for operations

- Undertakes all necessary steps for timely and quality preparation of the necessary public procurement documents and for proper public procurement of the works/supplies/services included in the operation approved for financing under the OP;
- Submits the draft public procurement documents for construction/services/supply to the IB, before the launching of the public procurement procedure(s);
- May invite representatives of the IB to participate as assessors in the tender evaluation committees, depending on the results of the risk assessment and the recommended mitigation measures by the MA;
- Submits the tender evaluation committee protocol/report, tenderers' offers and other documentation for the conducted public procurement procedure(s) for construction/services/supply to the IB for review and issuing an opinion;
- Signs the contracts with the contractor/supplier/consultant, selected as a result of the public procurement procedure;

3.3 Programme implementation and financial management

- Bears the responsibility for the day-to-day management of the operations approved for financing under the OP including all administrative, financial, technical and physical aspects;
- Receives the invoices from the contractor/supplier/consultant and after their verification executes the payment with own resources/advance received from the IB;

- Prepares requests for funds, including statements of expenditure at project level and project progress reports, accompanied with the respective supporting documentation and submits all these to the IB for further processing;
- Establishes and maintains comprehensive accounting system for recording and storing information in computerized form for all transactions at contract level. This includes filing and archiving of financial data, supplementary documents and reports at the level of details as described in Regulation 1083/2006 and Annex 3 of Commission Regulation 1828/2006 for its implementation;
- Ensures that the MA, IB and CA have access to information included in the comprehensive computerized accounting system (in accordance with Art 14 (1) of Commission Regulation 1828/2006 for implementation of Regulation 1083/2006);

3.4 Verifications and Audits

- Undertakes day-to-day checks that cover administrative, financial, technical and physical aspects of the operations, as appropriate;
- Verifies the invoices or other accounting documents submitted by the contractor/supplier/consultant and the actual delivery of works/goods/services contracted, before execution of payments;
- Implements the follow-up actions required/being recommended as per the Verification Findings Reports of the IB and MA and the audit reports in compliance with the specified deadlines;
- Keeps an adequate audit trail at project level, as well as the entire expenditure documentation for the operations (as originals and on appropriate electronic carrier) including all supporting documents for a period of 3 years following the closure of the OP;
- Provides access for the MA and IB during verification checks and for the audit institutions during audits;

3.5 Monitoring and Reporting

- Collects and processes the data necessary for the monitoring and the evaluation of the approved project for the purposes of entering of information in the MIS of the OP;
- Prepares the necessary periodic monitoring reports monthly, quarterly, annual and final (including the indicators) and submits the monitoring reports to the IB for approval;

III. Evaluation of OP

The evaluation will be carried out in accordance with Regulation 1083/2006, with the aim of improving the quality, effectiveness and consistency of community assistance and implementation of the programme. In accordance with Articles 47-49 of Regulation 1083/2006, three main types of evaluations will be carried out:

■ Ex-ante evaluation (before OP implementation commences)

The ex-ante evaluation aims at optimizing the allocation of budgetary resources and improve programming quality. It identifies and appraises medium- and long-term needs, the goals to be achieved, the results expected, the quantified targets of the OP, the coherence of the strategy proposed with the Community's priorities and the quality of the procedures for implementation, monitoring, evaluation and financial management. The ex-ante evaluation was carried out with the support of PHARE programme (by external independent evaluators).

The OP has been screened for the necessity of SEA and a positive decision has been issued by the competent authority (MOEW). The SEA is an important part of the ex-ante evaluation and was done in accordance with the provisions of the Directive No 2001/42/EC on the assessment of certain plans and programmes on the environment. This directive was transposed in the national legislation in 2004. The ex-ante recommendations are taken into account in the final version of the present OP.

• On-going evaluations (during the period of implementation of the OP)

The OP will be evaluated only when necessary, i.e. when the monitoring system identifies actual or potential implementation problems or when there is a strategic need to assess the programme contribution to Community or national policy objectives. The on-going evaluations could be either of a strategic (policy-related evaluations) or of an operational nature (performance-related evaluations).

There are two specific cases, linked to the monitoring of the OP, in which an on-going evaluation should be carried out:

- o where the monitoring systems reveal a significant departure from the goal initially set.
- o when programme revisions (related to major changes) are proposed.

In accordance with the principles of subsidiarity and proportionality (Art. 13 of Regulation 1083/2006), Member States bear the responsibility for carrying out on-going evaluations and taking corrective measures when problems arise. On-going evaluations of the present OP shall be managed by the MA and shall be conducted externally, by independent evaluators. The Commission may also carry out on-going evaluations on its own initiative, in partnership with the Member States.

An evaluation plan is to be developed whose main purpose is to provide an overall framework for the on-going evaluation and to ensure that it is effectively used as an integrated management tool during the implementation phase. A Steering Committee for the implementation and monitoring of this plan shall be established under the MA of OPE.

• Ex-post evaluation (after the end of the programming period).

Ex-post evaluations shall be carried out by the Commission, for each objective, in close cooperation with the MS and MAs, according to art. 49 of Regulation 1083/2006. Ex-post evaluation shall cover all OPs under each objective and examine the extent to which resources were used, the effectiveness and efficiency of Fund programming and the socio-economic impact. Ex-post evaluation shall be completed by 31 December 2015.

For monitoring and evaluation purposes, the respective output and result indicators of the OP shall be used possibly with proper financial indicators. The specific and practical guidelines for the

calculation of the above mentioned indicators shall be included in the MA and IB procedure manual. The monitoring reports shall be in a standard form and the relevant templates should also be part of the MA and the IB procedure manual.

IV. Financial management and control of OP

The MA is responsible, jointly with the CA, for the existence of a proper financial management of the OP and is accountable for the legality of the transactions concluded on the basis of funds received.

1 Information for the competent body for receiving payments from EC and for competent body making payments to Beneficiaries.

1.1 Competent Body for receiving payments from EC

With decision of the Council of Ministers No.988/27.12.2005 the **Ministry of Finance – Directorate "National Fund"** is designated as the body for receiving the payments from EC with regards to the Structural and Cohesion Funds.

1.2 Competent Body for making payment to Beneficiaries

With regards to OP "Environment 2007 -2013" the payments to the Beneficiaries shall be executed by the IB of the OP – directorate "EU Funds for environment" within the MOEW.

1.3 Certification and payments

The CA being also a Competent Body for receiving payments from EC shall be responsible for the certification of expenditures and for payments from EC. With regards to the certification it shall be responsible in particular for drawing up and submitting to the EC the certified statements of expenditure and payment claims in computerized form. The CA shall be certifying that:

- the statement of expenditure is accurate, results from reliable accounting systems and is based on verifiable supporting documents;
- the stated expenditure complies with applicable Community and national rules and was incurred in respect of operations selected for funding in accordance with the criteria applicable to the programme and complying with Community and national rules.

From this point of view the tasks of the Certifying Authority shall be to ensure that the received information on the procedures and verifications carried out in relation to expenditure and included in expenditure statements provides an adequate basis for certification, which entails:

- o to verify the compliance of the claimed figures with the database;
- o to verify the correct calculation of the total amount of eligible expenditures;
- o to take account of the results of all audits carried out by or under the responsibility of the AA/Audit services of EC;

With regards to the payments the CA shall be responsible performing the following activities:

- receiving the ERDF, ESF and CF funds;
- transferring the ERDF, ESF and CF funds and the co-financing amounts (if this is the case) to the IB;
- drawing up and submitting the estimation of expenditures to the EC;
- based on MA assessment, compiling and submitting to the EC the updated payment forecasts;
- returning to the EC the non-eligible expenditures or the funds that were not used, including interest of late payment;

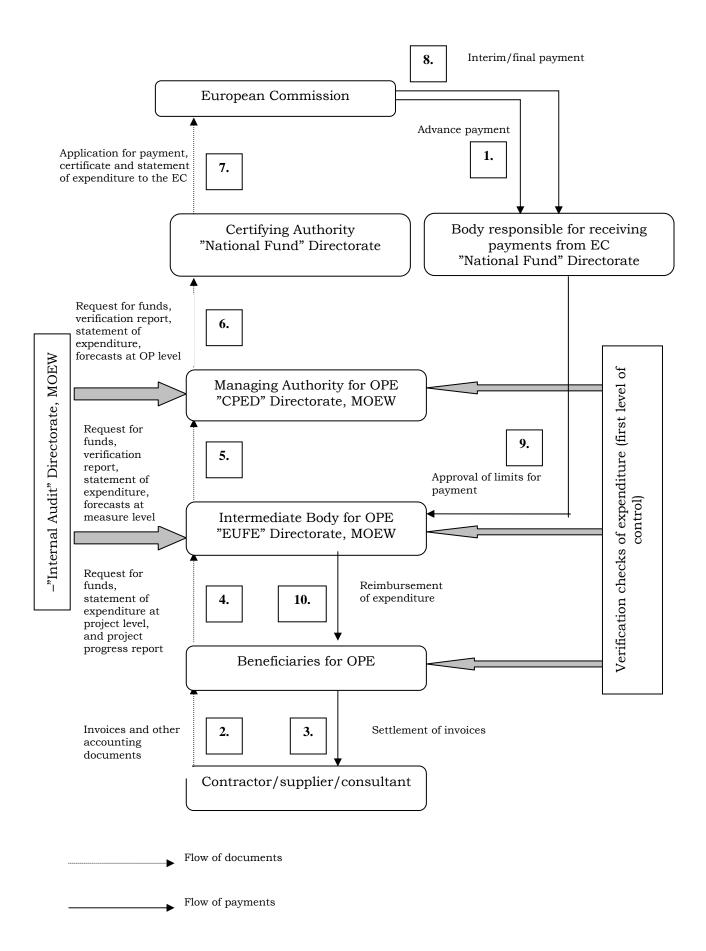
The MA shall work closely with the CA in fulfilling the responsibilities for effective, correct and efficient financial management and control to ensure that:

- the money are used in the most effective way so as to achieve the objectives of the OP;
- the use of resources is publicly accountable to the EU and the MS;
- the budgetary control is effective
- the financial planning is adhered to
- the contracting is within budget
- there is proper procurement of goods and services under projects financed (the procurement takes place and is in conformity with the EU and national rules and represents value for money)
- financial statements sent to EC and other bodies are correct, accurate and complete (funds are applied correctly; free from errors and all relevant items have been included);
- payments to Beneficiaries are made regularly and without undue delay or deductions;
- co-financing resources are provided as planned;
- payments are properly accounted for;
- irregularities are notified in line with EU regulations;
- any sums wrongly paid out are recovered swiftly and in full;
- unused or recovered resources are re-committed within the respective OP;
- de-commitment is avoided particularly in relation to the n+3/n+2 rule;
- closure of each OP takes place smoothly and on time.

Within the purpose of expenditure certification to the EC the verification checks are carried out on four levels – at the Beneficiaries level; at the IB level; at the MA level; and at the CA level.

2 Description of the financial flows for the OP:

The following figure represents the system for financial flows and payments with regards to OP "Environment 2007 -2013", the main participant in the process and the main documents necessary during the different stages of the overall financial management process.



With regards to the processes numbered 1 to 10 in the table above the following applies:

- 1 The EC executes an advanced payment to the OP.
- 2 The contactor/supplier/consultant issues an invoice or a document of equivalent probative value to the name of the Beneficiary. The Beneficiary verifies that the documents comply with the contract documentation (ToR, technical specification, etc.). He also performs day-to-day checks on the operations carried out by the contractor/supplier/consultant.
- 3 The Beneficiary settles the invoice with own resources on the basis of invoice verification and day-to-day checks on operations.
- 4 The Beneficiary prepares on a monthly basis request for funds and statement of expenditure at project level as well as a project progress report and presents them to the IB together with copies of invoices/documents of equivalent probative value.
- IB verifies (through document based checks on 100% of the requested claims), the submitted by the Beneficiaries requests for funds, statement of expenditure on a project level, project progress reports and the supporting documentation. The verification covers formal check, eligibility check and credibility check. IB shall also perform on-the-spot checks on operations selected on the basis of risk analysis. Based on the verifications and on-the-spot checks the IB prepares on a monthly basis: requests for funds on a measure level, statement of expenditure on a measure level, verification report on a measure level, as well as payment forecasts on measure level. IB submits the above documentation to the MA together with copies of invoices/documents of equivalent probative value.
- MA verifies (through document based checks on a sample basis of the requested claims), the submitted by the IB requests for funds, verification reports and statements of expenditure on a measure level together with the supporting documentation. MA reserves the right to perform on-the-spot checks on operations selected on the basis of risk assessment. As a result, on a monthly basis, the MA prepares: requests for funds at OP level, statement of expenditure on OP level, verification report on OP level and presents them to the CA. The MA prepares on an annual basis payment forecast on OP level and submits it to the CA.
- 7 CA certifies that the statement of expenditure received from the MA:
 - is accurate;
 - is based on verifiable supporting documents
 - results from reliable accounting systems
 - expenditures comply with the applicable Community and national rules;
 - expenditures are incurred for operations selected for funding in accordance with the criteria applicable for the OP
 - adequate information from MA is received with regards to the procedures and verifications carried out in relation to the expenditures included in the statement of expenditure
 - the results of all audits carried out by or under the responsibility of the AA are taken into account.

As result the CA prepares a payment application in an electronic format and submits it to the EC together with the certified statement of expenditure. The submission of payment applications from CA to EC shall be done 3 times per year, the latest date for submission is 31 October of the given year. The CA also sends to the EC aggregated payment forecasts for the current and subsequent financial years until 30 of April each year.

- 8 EC transfers the payment to the account of the body responsible for receiving funds from the EC no later than 2 months after the date on which the payment application is registered in case there is no suspension of payment.
- 9 On the basis of the documents received and on the basis of the certification of expenditure, the CA shall open limit on IB bank account (because the function for execution of payments to the beneficiaries is delegated to the IB) to the amount approved in the national currency..
- 10 The IB reimburses the funds to the Beneficiaries.

3 Accounting system to be used for OP "Environment 2007-2013"

For the purposes of OP "Environment 2007-2013" a double entry analytical accounting system shall be maintained, covering all contractual and other financial operations pertaining to the Operational Programme. The accounting system shall have adequate records for all operations coded by priority, operation, contract, sources of funds, etc.

The computerized accounting system used for the purposes of OP "Environment 2007-2013" shall be the SAP R/3 based accounting system used by the Certifying Authority.

As the tasks for the execution of payments to the Beneficiaries are delegated to the IB, the respective tasks related to the maintenance of the respective accounting records are also transferred to the Intermediate Body.

4 Identification and reporting of irregularities

The legal basis of irregularities is represented by Commission Regulation 1828/2006 and Council Regulation 2988/95 on the protection of the European Communities' financial interests that settle the provisions for the reporting of irregularities and control and recovery of sums resulted from non-reimbursable EU financial assistance. According to Commission Regulation 1828/2006, irregularities involving loss of EU funds of less than 10,000 Euro are not required to be reported to the Commission unless the Commission requests it. Therefore, irregularities of over €10,000 and all irregularities committed intentionally must be reported to the European Commission.

5 Audit

Pursuant to Article 58 (f) of Council Regulation 1083/2006, the OP management and control systems established shall include arrangements for auditing the effective functioning of those systems.

5.1 Institutions entitled to carry out audits for the OP "Environment"

The OP "Environment 2007-2013" shall be subject to both internal and external auditing. The internal audit for the purposes of the Programme will be performed by the "Internal Audit" Directorate within the MOEW. However, the audits on the OP will be carried out under the

responsibility of the AA ("Audit of EU Funds" Directorate within the Ministry of Finance), on which the overall coordination of the audit work for the Structural funds and the Cohesion Fund lies.

External audits on the OP "Environment" can be carried out by both national and European institutions, and in particular:

- "Audit of EU Funds" Directorate, in its capacity of AA for Structural Funds and Cohesion Fund in Bulgaria;
- The National Audit Office of the Republic of Bulgaria, in its capacity of the supreme authority for execution of independent external audit on institutions spending funds from the State and EU budget;
- European Court of Auditors, in its capacity of authority performing external audit on the implementation of Community budget;
- European Commission services.

5.2 Types of audits to be carried out for the OP

For the 2007-2013 programming period, the Commission requires an ex-ante assessment of the management and control systems of OPs to be carried out by an authority independent from the MAs and the CA. In Bulgaria, the "Audit of EU Funds" Directorate will perform the functions of a Compliance Assessment Body. Therefore, it will assess (or outsource the assessment) and provide to the European Commission a report with an opinion for the compliance of the management and control system set up for the OP "Environment 2007-2013", as well as for the other OPs, with the requirements of the Council Regulation 1083/2006. The compliance assessment report is to be presented before the submission of the first application for interim payment under the OP or within twelve months of the approval of the OP, at the latest. Therefore, the first interim payment to the OP is subject to the acceptance of the compliance assessment report by the Commission.

The AA shall ensure the conducting of audits on management and control system and audits on samples of operations. In case that the AA decides it can delegate/assign the conducting of system audits and audits on samples of operations to other bodies with the necessary skills ensuring their functional independence and the conducting of the audit as per methodology, approved or prepared by the Audit Authority. In this relation, after assessment of the quality of work of the "Internal Audit" Directorate in MOEW, the Audit Authority may decide that the "Internal Audit" Directorate may carry out audits on sample of operations and/or system audits as per methodology set and approved by the Audit Authority. The way the above mentioned assignment is done will be coordinated with the MOEW and specified in the Audit Strategy. For the purposes of OP "Environment 2007-2013" two types of audits will be performed:

• Systems audits, aimed at confirming the effective functioning of the management and control system set up for the Programme.

Audits on the management and control system of the Programme must enable conclusions to be drawn by the AA as to whether the system is operating effectively, i.e. whether it (1) provides for a clear definition, allocation and separation of functions within and between the bodies engaged in the management and control of the OP; (2) comprises relevant procedures for ensuring the correctness and regularity of expenditure declared; systems and procedures for ensuring an adequate audit trail;

and procedures for detection, reporting and treatment of irregularities; (3) ensures reliable accounting, monitoring and reporting system in computerized form.

■ Audits on samples of operations in order to verify the accuracy of expenditure declared and legality and regularity of the underlying transactions.

The sample audits shall be carried out on a twelve-month basis from 1 July 2008 on a sample of operations selected by a method established or approved by the AA. The audits shall be carried out on-the-spot, on the basis of documentation and records held by the beneficiary and shall verify that:

- (1) the operation meets the selection criteria for the OP, has been implemented in accordance with the decision for its approval and fulfills any applicable conditions concerning its functionality and use or the objectives to be attained;
- (2) the expenditure declared corresponds to the accounting records and supporting documents held by the beneficiary;
- (3) the expenditure declared is in compliance with Community and national rules;
- (4) the public contribution has been paid to the beneficiary as quickly as possible and in full. Where any problems detected during the sample audits appear to be systemic in nature and therefore entail a risk for other operations under the OP, the AA shall ensure that further examination is carried out, including additional audits where necessary, to establish the scale of such problems. The necessary preventive and corrective action shall be taken by the relevant authorities.

The Commission officials or authorized Commission representatives may carry out audits on OP "Environment 2007-2013" in order to verify the effective functioning of the management and control system of the Programme. The audits performed by the Commission may include also audits on operations financed under the OP. In such cases, a minimum of 10 working days' notice is given, except in urgent cases.

5.3 Documents of audit work

Audits of the OP 'Environment 2007-2013" will be performed pursuant to an audit strategy to be elaborated by the AA. The audit strategy shall define the bodies responsible to carry out systems audits and audits on operations for the OPs, the auditing method to be used, as well as an indicative planning of audits to ensure that the main authorities are audited and the audits are spread evenly throughout the programming period. The audit strategy shall be presented to the Commission within nine months of the approval of the OPs. The strategy shall be updated and reviewed annually and, if necessary, during the course of the year.

As a result of each audit assignment carried out, an audit report is prepared comprising details on audit findings and conclusions made by the auditing institution, as well as recommendations for the follow-up remedial actions which are necessary.

In compliance with Article 62 (d) of Regulation 1083/2006, the AA is also obliged to issue and submit to the European Commission by 31 December each year from 2008 to 2015 the following:

- (1) an annual control report and
- (2) an annual opinion for the effective functioning of the management and control systems of the OPs and for the correctness and legality of expenditure declared under the OPs.

The above documents shall be based on the systems audits and audits of operations carried out for the purposes of the OP in accordance with the audit strategy.

In its capacity of an AA for the Structural and Cohesion Funds in Bulgaria, the "Audit of EU Funds" Directorate bears the responsibility to submit to the European Commission a closure declaration for each OP, including for OP "Environment 2007-2013", assessing the validity of the application for payment of the final balance and the legality and regularity of the underlying transactions covered by the final statement of expenditure. It shall be based on all the audit work carried out by, or under the responsibility, of the AA in accordance with the audit strategy. The closure declaration shall be supported by a final control report and is to be submitted to the Commission until 31 March 2017.

However, Council Regulation 1083/2006 provides also an opportunity for partial closure of the OPs for operations completed within the framework of a particular year of implementation of the Programme. The submission of partial closure declaration is also a responsibility of the AA.

V. Publicity and information for the OP

In each institution (MA, IB and Beneficiaries), involved in the implementation of OP "Environment 2007-2013", a person shall be designated to be responsible for the publicity measures as well as for providing information on OPE implementation within the scope of the competencies of the respective institution. Information on the possibility to contact these persons shall be included in the publicity and information materials.

The institutions involved in the OPE implementation shall regularly report on the envisaged, ongoing and completed information and publicity measures.

All Beneficiaries who obtain support from the CF and/or ERDF within the OPE are obliged to implement certain information and publicity measures. These measures will depend on the type of project, which is being carried out. The available instruments include: diplomas, certificates, advertising billboards, permanent commemorative plaques, placing the logos of the EU and of the OPE on all documents pertaining to the project, co-operation with the media.

The requirements for the implementation of the information and publicity measures by the Beneficiaries shall be included in the contract signed for the financial support granted from the CF or the ERFD for the projects approved under the OPE. The Beneficiaries shall report (as part of their monitoring reports) to the IB on the implementation of the publicity and information measures.

The IB shall also play the role of "OPE promoter" (in addition to its envisaged roles of "OPE project advisor" and "OPE project assessor" as a support to the MA). The IB shall report to the MA in the form of monitoring reports. Among the other main responsibilities of the IB are: participation and support for conducting conferences and seminars; organization of information meetings with Beneficiaries; preparation and distribution of information materials; trainings and workshops for the Beneficiaries; support in maintaining the Internet site for OPE; co-operation with the media.

The MA shall be responsible for preparing the OPE Communication Plan in accordance with the requirements of art. 2 of Commission Regulation 1828/2006. Among the other main responsibilities of the MA are: OPE programme complement and procedures manual publication and distribution; organizing and conducting opening conferences for the OPE, conferences, seminars and information meetings for the public and for stakeholders; preparation, publication and distribution

of brochures, information materials; training and workshops for the IB and for Beneficiaries; development and maintenance of Internet site for OPE; co-operation with the media; opening and maintaining OPE information office and issuing OPE information bulletin; organizing and conducting periodical evaluations and preparing the corresponding reports.

On the basis of the monitoring reports submitted by the IB, the MA shall prepare summary information regarding the implementation of the Plan. On the basis of this information the MA shall prepare an annual report, which is to be sent to the European Commission, on enforcing the Commission Regulation 1159/2000 of 30 May 2000 on information and publicity measures to be carried out by the Member States concerning assistance from the Structural Funds.

VI. Procedures for computerized exchange of data with EC

The electronic data exchange with the European Commission shall be done through an interface between unified MIS, which is currently under development with PHARE assistance, and the EC MIS (SFC 2007). The CCI code for the OP "Environment 2007-2013" is 2007BG161PO005 . At the level of MA and IBs, specialized units (monitoring units) have been created in order to manage the database management for the OP and the MIS maintenance.

For the purpose of Articles 66 and 76 of Regulation 1083/2006 a computer system for exchange of data shall be established as a tool of exchange of all data relating to the operational programme.

The exchange of data between each Member State and the Commission shall be carried out using a computer system established by the Commission and permitting the secure exchange of data between the Commission and each Member State.

The Member States shall be involved in the further development of the computer system for data exchange.

According to art. 40 (1) of Commission Regulation 1828/2006, the computer system for data exchange shall contain information of common interest to the Commission and the Member States, and at least the following data necessary for financial transactions:

- the indicative annual allocation of each Fund in each operational programme as set out in the national strategic reference framework, in accordance with the model set out in Annex XV;
- the financing plans for operational programmes, in accordance with the model set out in Annex XVI;
- statements of expenditure and applications for payment, in accordance with the model set out in Annex X;
- annual forecasts of likely payment of expenditure, in accordance with the model set out in Annex XVII;
- the financial section of the annual reports and final implementation reports, in accordance with the model set out in Annex XVIII, point 2.1.

In addition, according to art. 40 (2) of Commission Regulation 1828/2006, the computer system for data exchange shall contain the following documentary aspects of common interest enabling monitoring to be carried out:

- the national strategic reference framework referred to in Article 27 (1) of Regulation 1083/2006;
- data establishing compliance with additionality, in accordance with the model set out in Annex XIX of Commission Regulation 1828/2006;
- the operational programmes, including data concerning categorization following the model set out in Part B of Annex II and in accordance with the tables set out in Part A of Annex II of Commission Regulation 1828/2006;
- the Commission decisions concerning the contributions of the Funds;
- the requests of assistance for major projects referred to in Articles 39, 40 and 41 of Regulation 1083/2006, in accordance with Annexes XXI and XXII of Regulation 1828/2006, together with selected data from those Annexes identified in Annex XX of Commission Regulation 1828/2006;
- the implementing reports in accordance with Annex XVIII, including data concerning categorisation following the model set out in Part C of Annex II and in accordance with the tables set out in Part A of Annex II of Commission Regulation 1828/2006;
- data on participants in ESF operations by priority, in accordance with the model set out in Annex XXIII of Commission Regulation 1828/2006;
- the description of management and control systems, in accordance with the model set out in Annex XII of Commission Regulation 1828/2006;
- the audit strategy, in accordance with the model set out in Annex V of Commission Regulation 1828/2006;
- the reports and opinions on audits, in accordance with the models set out in Annexes VI, VII, VIII, IX and XIII, and correspondence between the Commission and each Member State of Commission Regulation 1828/2006;
- the statements of expenditure concerning partial closure, in accordance with the model set out in Annex XIV of Commission Regulation 1828/2006;
- the annual statement on withdrawn and recovered amounts and pending recoveries, in accordance with Annex XI of Commission Regulation 1828/2006;
- the communication plan referred to in Article 2 of Commission Regulation 1828/2006.

VII. Management Information System

The MIS was developed and installed in 2006 within the framework of a PHARE project for strengthening of the administrative capacity of the Bulgarian Ministry of Finance. The system is in line with the requirements of the European and national legislation and in particular with the provisions of Council Regulation (EC) No1083/2006.

Technically the UMIS is designed and developed as a central database installed at the Bulgarian Ministry of Finance (MoF) which can be accessed through the Internet from any computer with a browser e.g. MS Internet Explorer. This is why the location of the user is not of importance – he/she can be located everywhere in Bulgaria and even abroad.

At present, the system has basic functionality. As it was already clarified, in order to use effectively the extended functionalities of the system, it has to be updated and fully adapted to the needs and requirements of the MAs of the Operational Programmes and their IBs. All administrative procedures adopted by the MAs and IBs of the OPs have to be correctly loaded into the system as well as all documents' templates accompanying their implementation, control lists, monitoring indicators, etc. Since these processes are not yet finalized in Bulgaria, the UMIS has to be further adapted and developed during its launch, which we expect to begin after the official approval of the NSRF and the OPs by the European Commission.

Although the UMIS will support all bodies on all levels involved in the management, monitoring and evaluation of the implementation of the SF in Bulgaria, it is envisaged at the initial stage of the UMIS implementation the users to be mainly from the OPs' MAs and IBs.

It is envisaged at a later stage when a certain stability of the system is achieved additional functionality to be developed in order to give the final beneficiaries opportunity to check the status of their project proposals and upload their application forms into the system.

The Unified information system for management of EU funds in Bulgaria has to be fully operational in the first half the of year 2008.

| | I. | List of | major | projects | for | OP | "Environment | 2007 | - 2013 |
|--|----|---------|-------|----------|-----|-----------|--------------|------|--------|
|--|----|---------|-------|----------|-----|-----------|--------------|------|--------|

Table 20 – Indicative list of major projects for OP "Environment 2007 -2013"

| No. | Name of project | Main commonants | Total eligible cost of the | EU funding (indicated) | | National funding | | Time table | |
|------|--|---|----------------------------|------------------------|------|---------------------|------------------------|------------------|-----------------------|
| 110. | Name of project | Main components | project (indicative) | CF | ERDF | (indicative) | Preparation indicative | Start indicative | Completion indicative |
| Prio | rity axis 1: Improvement a | and development of water and wastewater infrastructure in | n settlements with | n over 2000 PE | | | | | |
| 1. | Vratza integrated water | Extension of the sewage network -17.4 km; Rehabilitation of sewage network - 10.4 km; Renovation of WWTP; Equipment; Rehabilitation of the water supply network, stage I-III - 72 km. | 25 141 659,00 | 20 113 327,20 | 0,00 | 5 028 331,80 | 2007 | 2008 | 2010 |
| 2. | Gabrovo integrated water project | Extension of the sewage network -17.9 km; Reconstruction of sewage network - 19.1 km; Reconstruction of WWTP; Equipment; Renovation of DWTP; Reconstruction of water supply pumping stations; Rehabilitation of the water supply network - 65.6 km. | 36 958 819,00 | 29 567 055,20 | 0,00 | 7 391 763,80 | 2007 | 2008 | 2010 |
| 3. | improvement of the water supply and sewage | Extension of the sewage network - 16.5 km; Reconstruction of the sewage network - 40.78 km; WWTP Extension of the water supply network - 8.96 km; Renovation of the water supply network - 129.723 km. | 40 693 621,00 | 32 554 896,80 | 0,00 | 8 138 724,20 | 2007 - 2008 | 2009 | 2011 |
| 4. | | Extension of the sewage network - 3.755 km; WWTP Reconstruction of the water supply network - 19.1 km. | 25 208 340,00 | 20 166 672,00 | 0,00 | 5 041 668,00 | 2007 - 2008 | 2009 | 2011 |
| 5. | improvement of the water supply and sewage | Extension of the sewage network - 13 km; Reconstruction of the sewage network - 10.539 km; DWTP; Extension of the water supply network - 25.4 km; Reconstruction of the water supply network - 43.795 km | 27 095 783,00 | 21 676 626,40 | 0,00 | 5 419 156,60 | 2007 - 2008 | 2009 | 2011 |
| 6. | Integrated project for improvement of the water supply and sewage network - Kurdjaly | WWTP; Reconstruction of sewerage network; Construction of sewerage network; Reconstruction of water supply ntwork - 50.346 km | 32 541 506,00 | 26 033 204,80 | 0,00 | 6 508 301,20 | 2007 - 2008 | 2009 | 2011 |
| 7. | improvement of the water | WWTP; Extension of sewerage network - 22.241 km; Reconstruction of sewerage network - 20.134 km; Water supply network - stages I, II and III | 31 164 638,00 | 24 931 710,40 | 0,00 | 6 232 927,60 | 2007 - 2008 | 2009 | 2011 |
| 8. | improvement of the water | WWTP; Construction of sewerage network - 15.836 km; Extension of water supply network - 1.16 km; Reconstruction of water supply network - 2.19 km. | 49 944 192,00 | 39 955 353,60 | 0,00 | 9 988 838,40 | 2007 - 2008 | 2009 | 2011 |

| No. | Name of project | Main components | Total eligible cost of the | EU funding (indic | | National funding | | Time table | |
|-------|--|--|----------------------------|-------------------|---------------|---------------------|------------------------|------------------|-----------------------|
| 140. | Tvaine of project | Main components | project (indicative) | CF | ERDF | (indicative) | Preparation indicative | Start indicative | Completion indicative |
| | network - Plovdiv | | | | | | | | |
| 9. | supply and sewage network - Assenovgrad | Reconstruction of DWTP; Rehabilitation and new construction of water supply and sewage network. | 25 000 000,00 | 20 000 000,00 | 0,00 | 5 000 000,00 | 2008 | 2009 | 2011 |
| 10. | supply and sewage network - Gotze Delchev | Construction of WWTP; New construction and rehabilitation of water supply and sewage network. | 25 000 000,00 | 20 000 000,00 | 0,00 | 5 000 000,00 | 2008 | 2009 | 2011 |
| 11. | Integrated project for improvement of the water supply and sewage network - Bansko | Reconstruction of DWTP; Rehabilitation and new construction of sewage network. | 25 000 000,00 | 20 000 000,00 | 0,00 | 5 000 000,00 | 2008 | 2009 | 2011 |
| Prior | rity axis 2: Improvement a | and development of waste treatment infrastructure | | | | | | | |
| 12. | Kocherinovo - Construction of regional waste management center | Construction of new regional landfill, including simple composting facilities; areas for construction and demolition waste; facilities for temporary storage of hazardous waste prior to transfer to the national facilities; Construction of material recovery facility (MRF); Construction of transfer stations; Closure of 18 old landfills and construction of ventilation and gas collection/recovery system. | 34 125 793,00 | 0,00 | 29 006 924,05 | 5 118 868,95 | 2006 - 2007 | 2007 | 2009 |
| 13. | Construction of regional waste treatment facilities in Stara Zagora region | Construction of new regional landfill; Development of material recovery facilities (MRF's); In-vessel composting facilities; Windrow composting facilities for green waste; Areas for construction and demolition waste; Facilities for temporary storage of hazardous waste prior to transfer to the national facilities; Transfer station; Development of recycling centers; Closure of 11 old landfills and construction of ventilation and gas collection/recovery system. | 38 410 297,00 | 0,00 | 32 648 752,45 | 5 761 544,55 | 2007 - 2008 | 2008 | 2010 |
| 14. | Construction of regional waste treatment facilities in Varna region | Construction of new regional landfill; Development of material recovery facilities (MRF's); In-vessel composting facilities; Windrow composting facilities for green waste; Development of recycling centers; Areas for construction and demolition waste; Facilities for temporary storage of hazardous waste prior to transfer to the national facilities; Closure of 3 old landfills and construction of ventilation and gas collection/recovery system. | 30 757 373,00 | 0,00 | 26 143 767,05 | 4 613 605,95 | 2007 - 2008 | 2008 | 2010 |

| No. | | Total eligible cost of the | _ | EU funding contribution (indicative) | | Time table | | | |
|-----|---|---|-------------------------|--------------------------------------|----------------|-------------------------|------------------------|------------------|-----------------------|
| | | Wan components | project (indicative) | CF | ERDF | funding (indicative) | Preparation indicative | Start indicative | Completion indicative |
| 15. | Management of municipal solid waste of Sofia municipality | Installation for pre-treatment of mixed solid waste – facility for mechanical - biological treatment (MBT), incineration facility for that part of the mixed solid waste, that has not been extracted as result of preliminary MBT and landfill for disposal of the residues. | 131 134 187,00 | 0,00 | 111 464 058,95 | 19 670 128,05 | 2008 | 2008 | 2011 |
| | TOTAL | | 578 176 208,00 | 274 998 846,40 | 199 263 502,50 | 103 913 859.10 | | | |

J. Annexes

Annex 1

Indicative breakdown of the Community contribution by codes for category in **OP** "Environment 2007-2013"

| Codes for the Priority Theme Dimension | | Codes for the Form of Finance Dimension | | Codes for the Territorial Dimension | |
|--|-------------|---|---------------|-------------------------------------|---------------|
| Code* | Amount** | Code* | Amount** | Code* | Amount** |
| 44 | 293 443 504 | 01 | 1 466 425 481 | 00 | 235 376 737 |
| 45 | 166 433 336 | | | 01 | 1 231 048 744 |
| 46 | 768 469 973 | | | | |
| 50 | 2 701 931 | | | | |
| 51 | 80 786 894 | | | | |
| 81 | 146 686 777 | | | | |
| 85 | 3 951 533 | | | | |
| 86 | 3 951 533 | | | | |

^{*}Codes according to the standard classification (Commission Regulation 1828/2006)

^{**} Estimated amount of the Community contribution for each category

Groups of waste according to the list of Waste (Appendix 1, Order RD-323/1998 r.)⁴⁰

| Code | Name |
|------|---|
| 01 | Waste from the exploration, extraction and treatment of mineral resources |
| 02 | Waste from agricultural, horticultural, hunting, fishing and aquacultural primary production, food preparation and processing |
| 03 | Waste from wood processing and the production of paper, cardboard, pulp, panels and furniture |
| 04 | Waste from the leather, fur and textile industries |
| 05 | Waste from petroleum refining, natural gas purification and pyrolytic treatment of coal |
| 06 | Waste from inorganic chemical processes |
| 07 | Waste from organic chemical processes |
| 08 | Waste from the manufacture, formulation, supply and use of coatings (paints, varnishes and vitreous enamels, adhesives, sealants and printing inks) |
| 09 | Waste from the photographic industry |
| 10 | Inorganic waste from thermal processes |
| 11 | Inorganic metal-containing waste from metal treatment and the coating of metals, and non-ferrous hydrometallurgy |
| 12 | Waste from mechanical and surface treatment of metals, ceramics, glass and plastics |
| 13 | Oil waste (except edible oils and those from 05.00.00 and 12.00.00) |
| 14 | Waste from organic substances used as solvents (except 07.00.00 and 08.00.00) |
| 15 | Packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified |
| 16 | Waste not otherwise specified in the list |
| 17 | Construction and demolition waste (including road construction) |
| 18 | Clinical waste from human or animal health care (except food waste not arising from medical facilities) |
| 19 | Waste from waste treatment facilities, waste water treatment plants and the water industry |
| 20 | Municipal waste and similar commercial and industrial waste including separately collected fractions |

_

 $^{^{40}}$ Order RD-323 / 1998 r. was replaced as of 25.05.2004 by Regulation $\ensuremath{N\!\!_{2}}\xspace$ 3 on waste classification, but the data analysis of the current situation correspond to Order RD-323 / 1998.

List of Abbreviations

AA Audit Authority

AAQ Ambient Air Quality

BC Basin Council

BD Basin Directorate

BDA Biological Diversity Act
BSS Bulgarian State Standard

CA Certifying Authority
CF Cohesion Fund

CAAA Clean Ambient Air Act

CLRTAP Convention on Long-range Trans-boundary Air Pollution

CMD Council of Ministers' Decree

EC European Commission

EEA Executive Environmental Agency
EIA Environmental Impact Assessment

EPA Environmental Protection Act

ERDF European Regional and Development Fund

ESF European Social Fund

EU European Union

FEC Final Energy Consumption

GDP Gross Domestic Product

GEF Global Environment Facility

GHG Greenhouse Gases

GIS Geographic Information System

HEI Hygienic and Epidemiological Inspectorate with the Ministry of Health

IB Intermediate Body
IP Integrated Permit

IPPC Integrated Pollution Prevention and Control

LCP Large Combustion Plant

LFQCDG Liquid Fuels Quality Control Directorate General

MA Managing Authority

MAFS Ministry of Agriculture and Food Supply

MEE Ministry of Economy and Energy

MI Ministry of Interior

MIS Monitoring Information System

MoEW Ministry of Environment and Water

MP Management Plan

MPC Maximum Permissible Concentration

MS Monitoring Station

NGO Non-Governmental Organization

NPBDC National Plan for Biological Diversity Conservation

NPP Nuclear Power Plant

NSEAP National Strategy for the Environment and Action Plan

NSEM National System for Environmental Monitoring

NSI National Statistical Institute

NWMP The National Waste Management Programme

NWMS National Water Monitoring System

ODS Ozone Depleting Substances

OP Operational Programme "Environment 2007-2013"
OPE Operational Programme "Environment 2007-2013"

PAH Polycyclic Aromatic Hydrocarbons

PM Particulate matter

POP Persistent Organic Pollutants

PT Protected areas

RDP Rural Development Programme RES Renewable Energy Sources

RIEW Regional Inspectorate of Environment and Water
SAMTS State Agency for Metrology and Technical Surveillance

SEA Strategic Environmental Assessment

TPP Thermal Power Plant

UWWTP Urban waste water treatment plant
VOC Volatile Organic Compounds

WA Water Act

WMA Waste Management Act
WPP Water Power Plant

WSS Water Supply and Sewerage

Selection of environmental NGO representatives for participation in the elaboration of OP "Environment 2007-2013"

Operational Programme "Environment 2007-2013" is elaborated by a working group specifically established for this purpose. The principle composition of this working group (WG) is determined by a decision of the Coordination Council of NDP in August 2004. The WG consists of representatives from the line Ministries, regional and local authorities, social and economic partners, scientific organizations, syndicates and also includes two representatives of environmental NGOs from the country. In accordance with the implementation of the partnership principle, all participants of the WG, including the representatives of the environmental NGOs, actively participated in the elaboration of the OP through collaboration and consultations.

The selection of environmental NGO representatives is undertaken according to a procedure determined by the NGOs themselves during the National NGO Conference "Vitosha – 2002", carried out in Sofia in 2002. For this purpose, in September 2004 the MA of OP "Environment 2007-2013" invited the environmental NGOs from the country to designate their representatives in the WG for the elaboration of the OP.

According to the above-mentioned procedure, an NGO representative is a person, elected to represent the NGO community working for the environmental conservation and sustainable development in a certain body or institution. The elections are organized by the organization of Bulgarian NGOs working in the area of environmental conservation and sustainable development. Each registered under the Non-Profit Legal Entities Act NGO working on the problems of nature and environmental conservation and sustainable development has the right to participate in the elections..

The communication mechanisms, used for the organization of the elections and for exchange of information between NGOs, are the electronic information network BlueLink, the mailing list ngos@bluelink.net, the popular web site www.bluelink.net, the monthly printed newsletter "Ecopolis" and the common post, which are used when an NGO has submitted a written request and has paid an annual fee, fixed by the Managing Council of the Organization of Bulgarian NGOs/ further on referred to only as the Organization/.

The first environmental NGO representative in the WG is elected through the mailing list of the electronic informational network BluLink by using the procedure for electing environmental NGO representatives.

The selection procedure for representatives is launched on the grounds of a written request from a certain organization or institution (in the specific case from the Ministry of Environment and Water) for selection of environmental NGO representative/s. The Organization announces the launching of the procedure for the selection of NGO representative through its communication mechanisms and the information network BlueLink. Each NGO, which has the right to participate in the elections, can nominate one representative for each open position. The NGO is obliged to coordinate the nomination with the nominated person before submitting the application. The applications can be submitted in the form of a letter, by fax or through an e-mail and they must contain the name of the nominated person, the nominating NGO, declaration of the NGO for the experience of the candidate, his/her autobiography in a set format and in an electronic version, motivation letter from the nominated person, all submitted to the Organization. The deadline for

the nomination of environmental NGO representatives is set by the Organization but the period can not be less than 12 working days from the date of the launching of the procedure.

Within 5 working days after the closing date of the nomination procedure, the Organization prepares a list with the nominated persons and a package with their autobiographies and motivation letters and sends them through an e-mail and a common post to the organizations that have the right to participate in the elections. The deadline for voting is defined by the Organization but it can not be less than 10 working days from the date of announcing the launch of the voting procedure. Each vote is in the form of a document, signed by the person officially representing the organization or another authorized person, stamped with the official stamp of the organization and sent to the Organization via e-mail, common post or fax.

Each NGO, which has the right to participate in the elections, can vote for only one candidate for each free position. For an elected NGO representative is considered the candidate who has collected the most votes. In cases when for a certain candidate for an NGO representative there are equal votes, a second voting procedure is undertaken. Each person interested in the results can examine the selection documentation within 3 days after the voting deadline. The Organization of Bulgarian NGOs announces through BlueLink and through the monthly newsletter "Ecopolis" the results from the elections within 7 working days following the voting deadline.

According to this procedure for selection of environmental NGO representatives, two NGO representatives (titular and a substitute) are elected for being part of the WG for the elaboration of OP "Environment 2007-2013". They are nominated in the period 07-23.09.2004 (12 working days according to the procedure for NGO elections) as a result of the elections launched by "BlueLink" Foundation. For a titular is elected Mr. Petko Kostadinov Kovachev from the "Information and training center for ecology", Sofia.

The two representatives (titular and substitute) are elected from a total of 10 voting environmental NGOs within the period 24.09-08.10.2004 (10 working days according to the procedure for NGO elections), namely: Association for the wild nature "Balkans", Sofia; "Land Forever" Association, Svishtov; "Agrolink" Association, Sofia; "Ecoglasnost" National movement, Montana; "Akademika" GeoEcoClub, Veliko Tarnovo; "Sirius" Club for studying, nature conservation and human achievements, Plovdiv; Association of Parks in Bulgaria; "For the Land" Ecological Association, Sofia; "Green Balkans" Federation, Plovdiv; "Information and training center for ecology", Sofia.

The second representative in the WG for the elaboration of OP "Environment 2007-2013" is elected in August 2004 after the selection procedure for NGO representatives was launched and published in "Green Shield" magazine and disseminated through an e-mail and through the coordinators of the Coordination Council of the National NGO Conference "Vitosha -2002". A substitute is also elected for this representative of the WG.

Following the conclusion of the voting procedure, for a titular is elected Mrs. Galya Marinova Bardarska – member of the Managing Council of the "Global Water Partnership for Central and Eastern Europe" and a member of the Managing Council of UBIFRANCE – Bulgaria – responsible for the environment in the economic mission of the French Embassy. Mrs. Bardarska is nominated from the Coordination Council of the National NGO Conference "Vitosha -2002".

The NGOs approved the nomination of Mrs. Galya Bardarska for a representative of an environmental NGO in the WG for the elaborations of OP "Environment 2007-2013" are from a total of 15 voting NGOs, namely: "BIOTERA" NGO, Pleven; "Interecu 21century" Federation, Sofia; "Man, Ecology, Nature" NGO, Sofia; "Hebelera" Ecoassociation, Asenovgrad; "The Universe of a Man" Foundation, Sofia; "Democratic Rhodopi" Foundation, Yakoruda;

"Mountaineers" Ecoassociation, Troyan; "Global Water Partnership", Sofia; "Ecology and Sustainable Development" Association, Targovishte; "Green Patrols" National Movement, Sofia; "Ecotera" Association, Asenovgrad; "Balcan" Private Development Association, Pirdop; "Ekstrem" NGO, Pleven; "International Association of Water and Soil Conservation"; Civil Ecological Council", Sofia.

The participation of appointed environmental NGO representatives in the elaboration of the OP will continue in the future with the transformation of the working group into a Monitoring Committee of OP "Environment 2007-2013". In 2007 is envisaged the official establishment of the Monitoring Committee of the OP "Environment 2007-2013", in which is also envisaged the inclusion of representatives of environmental NGOs, with the purpose of the implementation of partnership principle.

Information on capacity assessment of the potential beneficiaries of OP "Environment 2007-2013" carried out by the "EU funds for Environment" Directorate in the Ministry of Environment and Water

In 2006 and 2007 the "EU Funds for Environment" Directorate in the Ministry of Environment and Water performed capacity assessments of 28 municipalities in total that are beneficiaries of ISPA measures.

The main objective of the above-mentioned task was to assess the capacity of the municipalities in respect of managing EU funded projects, including projects funded by the Structural funds and the Cohesion funds within OP "Environment 2007-2013".

In performing the assessment, the general criteria and requirement of the European Commission concerning the decentralized management system under ISPA Programme were used.

During the capacity assessments were evaluated:

- The financial management and control system of the respective municipality (including code of conduct, internal working rules and organizational structure, human resources development, segregation of duties);
- Experience of the respective municipality in project management;
- Administrative capacity of the municipalities (including number and qualification of the staff);
- Technical capacity of the municipality.

The main findings of the capacity assessments performed refer in general to the following issues:

- Staffing: necessity for staff needs analyses with respect to the implementation of future projects financed by the Structural funds and the Cohesion fund; insufficient qualification of the staff with regard to project management; necessity for training needs analyses; special trainings in respect to management and implementation of Structural and Cohesion funds projects;
- Risk assessment and analysis: necessity of such analyses particularly with respect to project management;
- Financial management and control: necessity for adjustment of the procedures currently used in accordance with the legislation in the field; necessity for written instruction with regard to the document flow; necessity for effective segregation of functions;
- Public procurement: necessity for internal rules for the implementation of the public procurement process

Considering the above findings related to the capacity of the current beneficiaries of ISPA measures and potential beneficiaries under the OP "Environment 2007-2013", the following general recommendations have been made:

- Analyses of the needs of additional staff in relation to the future participation in managing projects financed by the Structural funds and the Cohesion fund to be carried out;
- Analyses of training needs with respect to the management of Structural and Cohesion fund projects to be performed;
- Intensive trainings, specialized courses, programmes and seminars for the staff to be conducted (particularly with regard to public procurement procedures and project management and implementation);
- Effective written procedures with respect to financial management and control to be established in line with the current legislation in the field;
- Risk analyses procedures with respect to project management to be established and effectively implemented;
- Internal procedures with regard to the implementation of the public procurement process to be established and implemented.

Financial needs for implementation of EU Directives in "water", "waste" and "biodiversity" sectors and identified sources of financing

The purpose of the present Annex is to provide an overview of the financial resources for the period 2007-2013, necessary for the implementation of the requirements of the EU Directives in the "water", "waste" and "biodiversity" sectors, falling within the scope of the Operational Programme "Environment 2007-2013".

1. Financial needs for the implementation of EU Directives in the "water" sector.

During the negotiations under Chapter 22, two transitional periods have been negotiated with regard to the implementation of the requirements of **Directive 91/271/EC** concerning urban waste water treatment, which are as follows:

- 31 December 2010 for all agglomerations over 10 000 PE;
- 31 December 2014 for all agglomerations between 2 000 and 10 000 PE.

In 2003, Programme for Implementation of Directive 91/271/EC was developed. According to the Programme, the total investment costs necessary for the implementation of the requirements of the Directive for the period 2007-2013 amount to 1 667 million EUR.

The so identified financial resources shall be spent for construction of sewerage network and/or urban WWTP in 333 agglomerations in total. For 246 agglomerations, the activities pertaining from the requirements of the Directive 91/271/EC are to be finalized till 31 December 2013, and for 87 agglomerations – till 31 December 2014, which is the deadline for the fulfillment of the commitments of the Republic of Bulgaria under the Directive.

The sources of financing the necessary investment costs for the implementation of the requirements of Directive 91/271/EC, as identified in the Implementing Programme are presented in the following table:

Table 22: Total investment costs for implementation of the requirements of Directive 91/271/EC for the period 2007-2013 and identified sources of funding (in million EUR).

| Total investment costs for the | Sources of funding of the investment costs needed for implementation of the requirements of Directive 91/271/EC for the period 2007-2013 | | | | | | |
|--------------------------------|--|--------------|-------|---------------|--|--|--|
| period 2007-2013 | OP "Environment 2007-2013" | State budget | ЕМЕРА | Private funds | | | |
| 1 667 | 1 2676 | 18 | 19 | 11 | | | |

Source: Implementation programme of Directive 91/271/EC

The Table 22 shows that the identified sources of financing of the investment costs necessary for the implementation of the requirements of Directive 91/271/EC for the period 2007-2013 provide approximately 78,9% coverage of financial needs, i.e. there is a financial gap of approximately 352

⁶ The figure includes the resources provided by the Cohesion fund and national co-financing under Priority 1 of OP

[&]quot;Environment 2007-2013" for construction of water supply and sewerage systems

million EUR. It is not possible to show in the table the distribution of the investment costs for the implementation of the requirements of the Directive between the different components (i.e. sewerage networks and WWTPs) due to the structure and the format of the Programme for Implementation of Directive 91/271/EC. The Programme identifies the investment costs envisaged for the implementation of Directive 91/271/EC in total and their distribution per years and per sources of funding, but not per different components (i.e. sewerage networks and WWTPs).

Considering that the activities under Priority 1 of the Operational Programme "Environment 2007-2013" related to the development of infrastructure for waste water treatment in settlements over 2 000 PE might be supported, where proven justification for improving the quality and/or quantity of the drinking water supply exists, with the relevant components with regard to water supply, the actual coverage of the needs comes out to be lower.

With regard to the **Directive 2000/60/EC** laying down the framework for Community activities related to water (the Water Framework Directive) the Republic of Bulgaria has not requested transitional periods.

According to the information provided by the "Water" Directorate within the Ministry of Environment and Water, the necessary funds for implementation of the requirements pertaining from the Water Framework Directive amount to approximately 17.4 million EUR for the period 2008-2014. The above mentioned financial needs will all be covered within Priority 1 of OP "Environment 2007-2013".

2. Financial needs for the implementation of EU Directives in the "waste" sector.

With regard to the implementation of the requirements of **Directive 99/31/EC** on the landfill of waste, the Republic of Bulgaria has negotiated the following transitional periods:

- 31 December 2006 with regard to the landfills for hazardous waste;
- 16 July 2009 for the landfills for inert and non-hazardous waste (including landfills for municipal, construction and industrial waste);
- 31 December 2014 for the landfills pursuant the Annex to § 12, par. 1 of Transitional and Final provisions of the Waste Management Act with regard to the prohibition for the disposal of liquid, corrosion and oxidizing waste.

With regard to the limitation of the biodegradable waste intended for disposal, the reduction of the quantity of biodegradable municipal waste for disposal shall be as follows (1995 being the base year):

- Up to 75% till 2010;
- Up to 50% till 2013;
- Up to 35% till 2020.

Republic of Bulgaria has elaborated a Programme for implementation of Directive 99/31/EC on the landfill of waste, which determines the requirements, aims and the necessary administrative, legislative and investment measures in order to ensure fulfillment of the requirements of EU in the field of landfill of waste. It also identifies the necessary financial resources for achieving the requirements of the Directive for the period 2003-2015. The total amount of the necessary financial

resources for the implementation of the requirements of Directive 99/31/EC is 737,20 million EUR⁷.

The allocation of the above specified financial resources needed for implementation of the requirements of Directive 99/31/EC is as follows:

Table 23: Total investment costs for implementation of the requirements of Directive 99/31/EC as identified in NWMP 2003-2007 (in million EUR).

| Activity according to the Implementation Programme of Directive 99/31/EC | Necessary financial resources as identified in NWMP 2003-2007 |
|--|---|
| Construction of regional landfills for municipal waste | 300,70 |
| Closure of existing landfills for municipal waste | 77,20 |
| Sanitation of old contaminations from landfills of waste | 17,90 |
| Construction of installations for treatment of biodegradable waste | 52,70 |
| Closure/recultivation of landfills for hazardous waste within the Programme for elimination of damages resulting from the privatization of industrial enterprises | 28,60 |
| Construction and putting into compliance of landfills for industrial and hazardous waste, including those pursuant to the Annex to § 12, par. 1 of Transitional and Final provisions of the Waste Management Act | 233,60 |
| Construction of regional facilities for treatment of construction and demolition waste | 26.50 |
| Total for Directive 99/31/EC | 737.20 |

Sources: Programme for implementation of Directive 99/31/EC, National Waste Management Programme 2003-2007

The financial implementation of the commitments under Directive 99/31/EC up to the present moment (2007) is as follows:

Table 24: Financial implementation of the commitments under Directive 99/31/EC (in million EUR).

| Activity according to the Implementation Programme of Directive 99/31/EC | Financial implementation |
|--|--------------------------|
| Construction of regional landfills for municipal waste | 155,92 |
| Closure of existing landfills for municipal waste | 8,20 |
| Sanitation of old contaminations from landfills of waste | 1,30 |
| Construction of installations for treatment of biodegradable waste | 0,58 |
| Closure/recultivation of landfills for hazardous waste within the Programme for elimination of damages resulting from the privatization of industrial enterprises | 16.20 |
| Construction and putting into compliance of landfills for industrial and hazardous waste, including those pursuant to the Annex to § 12, par. 1 of Transitional and Final provisions | 7,70 |

⁷ The necessary financial resources as identified in the Programme for implementation of Directive 99/31/EC are reduced to a large extent. The specified necessary financial resources are identified as a part of the National Waste Management Programme 2003-2007.

122

| of the Waste Management Act | |
|--|--------|
| Construction of regional facilities for treatment of construction and demolition waste | 0.00 |
| Total for Directive 99/31/EC | 189.90 |

Source: "Waste management" Directorate in MOEW

The necessary financial resources for the implementation of the requirements resulting from the Directive 99/31/EC for the period 2007-2015 amount to **861.56 million EUR**.

The distribution of the necessary funds among the activities, pertaining from the Directive and the identified sources of financing for the period 2007-2015 is as follows:

Table 25: Distribution of the necessary funds among the activities pertaining from the Directive 99/31/EC and the identified sources of financing for the period 2007-2015 (in million EUR).

| Activity according to the Implementation Programme | Total investment costs for the | Sources of funding of the investment costs needed for implementation of the requirements of Directive 99/31/EC for the period 2007-2015 | | | | | |
|---|--------------------------------|---|----------------------------|------------------------|-------------------------|--|--|
| of Directive 99/31/EC | period 2007- 2015 | ISPA/ Other donors | OP "Environment 2007-2013" | State budget/ EMEPA | Economic operators/ PPP | | |
| Construction of regional landfills for municipal waste | 322.01 | | | | | | |
| Closure of existing landfills for municipal waste Sanitation of old contaminations from landfills of waste | 203.00 | 23.93 | 307.243 | 193.837 | 0.00 | | |
| Construction of installations for treatment of biodegradable waste | 54.85 | 0.00 | 33.00 | 21.85 | 0.00 | | |
| Closure/recultivation of landfills for hazardous waste within the Programme for elimination of damages resulting from the privatization of industrial enterprises | 29.20 | 0.00 | 0.00 | 29.20 | 0.00 | | |
| Landfills for industrial and hazardous waste | 226.00 | 0.00 | 0.00 | 0.00 | 226.00 | | |
| Construction of regional facilities for treatment of construction and demolition waste | 26.50 | 0.00 | 12.00 | 8.00 | 6.50 | | |
| Total for Directive 99/31/EC | 861.56 | 23.93 | 352.243 | 252.887 | 232.50 | | |

Source: "Waste management" Directorate in MOEW

With regard to **Directive 91/689/ECC** on the hazardous waste, no transitional periods have been negotiated. The necessary financial resources for fulfilment of the requirements of Directive 91/689/EEC are identified as a part of the National Waste management Programme 2003-2007 and amount to **95.909 million EUR.**

The allocation of the financial resources necessary for implementation of the requirements of Directive 91/689/EEC, as identified in the NWMP 2003-2007 is as follows:

Table 25: Total investment costs for implementation of the requirements of Directive 91/689/EEC as identified in NWMP 2003-2007 (in million EUR).

Activity pertaining from Directive 91/689/EEC N

Necessary financial resources as identified in NWMP

| Facilities for integrated treatment of hazardous waste | 50.00 |
|--|--------|
| Construction of regional facilities for incineration of medical waste | 10.50 |
| Facilities for autoclaving and sterilization of infectious waste from the medical establishments | 2.909 |
| Infrastructure for separate collection of hazardous waste from medical establishments and management of waste from medical establishments | 0.00 |
| Facilities for integrated treatment of hazardous waste (140 stations for separate collection of hazardous waste from municipal waste flow) | 30.00 |
| Facilities for integrated treatment of hazardous waste (50 stations for separate collection of hazardous waste from municipal waste flow) | 2.50 |
| Total for Directive 91/689/EEC | 95.909 |

Source: National Waste Management Programme 2003-2007

The implementation of the commitments under Directive 91/689/EEC up to the present moment (2007) is as follows:

Table 26: Financial implementation of the commitments under Directive 91/689/EEC (in million EUR).

| Activity pertaining from Directive 91/689/EEC | Financial implementation |
|--|--------------------------|
| Facilities for integrated treatment of hazardous waste | 0.00 |
| Construction of regional facilities for incineration of medical waste | 5.232 |
| Facilities for autoclaving and sterilization of infectious waste from the medical establishments | 2.178 |
| Infrastructure for separate collection of hazardous waste from medical establishments and management of waste from medical establishments | 0.00 |
| Facilities for integrated treatment of hazardous waste (140 stations for separate collection of hazardous waste from municipal waste flow) | 0.10 |
| Facilities for integrated treatment of hazardous waste (50 stations for separate collection of hazardous waste from municipal waste flow) | 0.10 |
| Total for Directive 91/689/EEC | 7.61 |

Source: "Waste management" Directorate in MOEW

The necessary financial resources for the implementation of the requirements resulting from the Directive 91/689/EEC for the period 2007-2015 amount to 112.74 million EUR.

The distribution of the necessary funds among the activities pertaining from the Directive and the identified sources of financing for the period 2007-2015 is as follows:

Table 27: Distribution of the necessary funds among the activities pertaining from the Directive 91/689/EEC and the identified sources of financing for the period 2007-2015 (in million EUR).

| Activity pertaining from | Total investment costs for the | Sources of funding of the investment costs needed for implementation of the requirements of Directive 91/689/EEC for the period 2007-2015 | | | | | |
|--|--------------------------------|---|----------------------------|------------------------|-------------------------|--|--|
| Directive 91/689/EEC | period 2007- 2015 | ISPA/ Other donors | OP "Environment 2007-2013" | State budget/ EMEPA | Economic operators/ PPP | | |
| Facilities for integrated treatment of hazardous waste | 50.00 | 0.00 | 0.00 | 0.00 | 50.00 | | |
| Construction of regional facilities for incineration of medical waste | 10.50 | 2.355 | 0.00 | 8.145 | 0.00 | | |
| Facilities for autoclaving and sterilization of infectious waste from the medical establishments | 8.74 | 0.00 | 0.00 | 1.74 | 7.00 | | |
| Infrastructure for separate collection of hazardous waste from medical establishments and management of waste from medical establishments | 11.00 | 0.00 | 0.00 | 0.00 | 11.00 | | |
| Facilities for integrated treatment of hazardous waste (140 stations for separate collection of hazardous waste from municipal waste flow) | 30.00 | 0.00 | 14.50 | 5.00 | 10.50 | | |
| Facilities for integrated treatment of hazardous waste (50 stations for separate collection of hazardous waste from municipal waste flow) | 2.50 | 0.00 | 0.00 | 0.50 | 2.00 | | |
| Total for Directive 91/689/EEC | 112.74 | 2.355 | 14.50 | 15.385 | 80.50 | | |

Source: "Waste management" Directorate in MOEW

With regard to **Directive 2000/53/EC** on end-of-life vehicles no transitional periods have been negotiated. Programme for implementation of Directive 2000/53/EC has been elaborated, covering the period 2003-2007. Till the end of 2006, there is an obligation for reporting only the implementation of the objectives regarding the recycling and the recovery but not the expenditure for their fulfilment.

After 2007, data for the financial implementation will be gathered as well.

The total amount of the necessary financial resources for the implementation of the requirements of Directive 2000/53/EC for the period 2007-2013 is **141.10 million EUR.**⁸

Directive 96/59/EC on the disposal of PCB and PCT requires the owners of PCB and PCT to elaborate plans for the disposal of the equipment till 2010. The total amount of the necessary financial resources for the implementation of the requirements of Directive 96/59/EC after 2007 is **185.00 million EUR**⁹.

The distribution of the necessary funds for the implementation of the requirements of the Directive among the identified sources of financing for the period 2007-2010 is as follows:

_

⁸ The financial needs will be assessed precisely within the National Waste Management Programme 2009-2013, which is under development

⁹ The financial needs will be assessed precisely within the National Waste Management Programme 2009-2013, which is under development

Table 28: Distribution of the necessary funds for Directive 96/59/EC and the identified sources of financing for the period 2007-2010 (in million EUR).

| Directive 96/59/EC | Total investment costs for the | | Sources of funding of the investment costs needed for implementation of the requirements of Directive 96/59/EC for the period 2007-2010 | | | |
|------------------------------|--------------------------------|--------------------------|---|------------------------|------------------------|--|
| | period 2007- 2010 | ISPA/ Other donors | OP "Environment 2007-2013" | State budget/ EMEPA | Economic operators/PPP | |
| Total for Directive 96/59/EC | 185.00 | 0.00 | 0.00 | 0.00 | 185.00 | |

Source: "Waste management" Directorate in MOEW

Directive 75/439/EEC on the disposal of waste oils lays down the requirements with regard to the treatment of waste oils and the establishment of systems for their collection and handing over for utilization. There are no transitional periods negotiated for the above Directive, neither Programme for its implementation.

The total amount of the necessary financial resources for the implementation of the requirements of Directive 75/439/EEC after 2007 is 23.00 million EUR¹⁰.

With regard to **Directive 91/157/EEC** on batteries and accumulators containing certain dangerous substances, amended and supplemented by **Directives 93/86/EEC and 98/101/EC** there are no transitional periods negotiated and Implementing Programmes. The necessary financial resources for the implementation of the requirements of the above Directive amount to **21.00 million EUR**¹¹.

With regard to **Directive 2002/96/EC** on waste electrical and electronic equipment, amended by **Directive 2003/108/EC**, transitional period has been negotiated for achieving the quantitative objectives for the recycling, recovery and re-use of the waste electrical and electronic equipment – 4 kg/citizen till 31 December 2008. Republic of Bulgaria has elaborated Programme for implementation of Directive 2002/96/EC. The total investment costs for implementation of the requirements of the Directive amount to **150.45 million EUR**¹².

With regard to **Directive 94/62/EC** on packaging and packaging waste, amended by Directive **2004/12/EC**, Programmes for Implementation have been prepared. The total amount of the financial resources needed for the implementation of the requirements of Directive 94/62/EC, amended by Directive 2004/12/EC, as identified in the Programmes for their implementation amount to **172.24 million EUR**¹³. The funds spent with regard to the implementation of the requirements of the Directives till present (2007) amount to 16.332 million EUR.

_

¹⁰ The financial needs will be assessed precisely within the National Waste Management Programme 2009-2013, which is under development

¹¹ The financial needs will be assessed precisely within the National Waste Management Programme 2009-2013, which is under development.

¹² The financial needs will be assessed precisely within the National Waste Management Programme 2009-2013, which is under development.

¹³ The financial resources identified within the Implementation Programme of Directive 94/62/EC and the Implementation programme of Directive 2004/12/EC, amending Directive 94/62/EC are reduced to a large extents. It shall be taken into account that the total quantity of packaging at the market, reported by the EEA amounts to 520 192 tonnes, and the forecasted quantity as per the Implementing Programmes is 356 676 tonnes. The necessary financial resources will be provided mainly through the license fees on the entities offering packed commodities and participating in the recovery organizations.

The distribution of the funds needed for implementation of the requirements of the Directives for the period after 2007 is shown in the following table.

Table 29: Distribution of the necessary funds for Directive 94/62/EC, amended by Directive 2004/12/EC and the identified sources of financing for the period after 2007 (in million EUR).

| Directive 94/62/EC, amended by Directive 2004/12/EC | Total investment costs for the period after 2007 | Sources of funding of the investment costs needed for implementation of the requirements of Directive 94/62/EC, amended by Directive 2004/12/EC for the period after 2007 ISPA/ OP State Individual entities/ recovery organizations/ external sources | | | |
|---|--|---|------|-------|---------|
| Total for 94/62/EC, amended by Directive 2004/12/EC | 128.365 | 0.00 | 0.00 | 0.749 | 127.616 |

Source: "Waste management" Directorate in MOEW

With regard to **Directive 2006/66/EC** on batteries and accumulators, repealing **Directive 91/157/EEC** on batteries and accumulators containing certain dangerous substances, data concerning financial implementation are not presented, as the transposition of the Directive into national legislation is forthcoming till September 2008.

With regard to **Directive 2002/95/EC** on the restriction of the use of certain hazardous substances in electrical and electronic equipment, data concerning financial implementation are not presented, as the Directive is in force as from 1 January 2007.

3. Financial needs for the implementation of EU Directives in the "biodiversity" sector.

With regard to the implementation of the commitments of the Republic of Bulgaria in the area of preservation and restoration of biological diversity (**Directive 92/43/EEC** on the conservation of natural habitats and of wild fauna and flora and **Directive 79/409/EEC** on the conservation of wild birds), no transitional periods have been negotiated.

Therefore, there are no implementing programmes elaborated in which detailed and precise calculations concerning the necessary investment costs for the achievement of the commitments under the above Directives to be presented. Furthermore, about 50% of the external borders of the protected zones, defined under the two Directives are overlapped and therefore the information on the financial resources, needed for the implementation of the commitments can be presented only as a total amount.

The indicative forecast for the period 2007-2013 shows that the necessary financial resources for the fulfilment of the commitments of the Republic of Bulgaria in the biodiversity sector amount to approximately 203.125 million EUR.

As shown in the table below, 103.308 million EUR are provided under Priority 3 "Preservation and restoration of biological diversity" of the OP "Environment 2007-2013". The indicative forecast shows that 20 million EUR can be provided from the state budget and within the framework of LIFE+ Programme.

Table 30: Total investment costs for implementation of the requirements of Directives 92/43/EEC and Directive 79/409/EEC for the period 2007-2013 and identified sources of funding (in million EUR).

| Total investment costs for the period 2007-2013 | Sources of funding of the investment costs needed for implementation of |
|---|---|
| | the requirements of Directives 92/43/EEC and Directive 79/409/EEC for |

| | the period 2007-2013 | | |
|--------|----------------------------|------------------------------|--|
| | OP "Environment 2007-2013" | State budget/LIFE+ Programme | |
| 203.12 | 103.31 | 20.00 | |

Source: "National Nature Protection Service" Directorate in MOEW

The Table 30 shows that the identified sources of financing of the investment costs necessary for the implementation of the requirements of Directives 92/43/EEC and 79/409/EEC for the period 2007-2013 can provide approximately 60.7% coverage of financial needs, i.e. there is a financial gap of approximately 79.81 million EUR (39.3%).

Annex 7

List of 33 municipalities falling within urban agglomeration areas

| 1 | Asenovgrad | |
|----|-------------------|--|
| 2 | Blagoevgrad | |
| 3 | Burgas | |
| 4 | Dimitrovgrad | |
| 5 | Dobrich | |
| 6 | Dupnitsa | |
| 7 | Gabrovo | |
| 8 | Gorna Oryahovitsa | |
| 9 | Haskovo | |
| 10 | Kardzhali | |
| 11 | Kazanlak | |
| 12 | Kyustendil | |
| 13 | Lovech | |
| 14 | Montana | |
| 15 | Pazardzhik | |
| 16 | Pernik | |
| 17 | Pleven | |
| 18 | Plovdiv | |
| 19 | Razgrad | |
| 20 | Ruse | |
| 21 | Shumen | |
| 22 | Silistra | |
| 23 | Sliven | |
| 24 | Smolyan | |
| 25 | Sofia | |
| 26 | Stara Zagora | |
| 27 | Svishtov | |
| 28 | Targoviste | |
| 29 | Varna | |
| 30 | Veliko Tarnovo | |
| 31 | Vidin | |
| 32 | Vratsa | |
| 33 | Yambol | |