

FINAL TECHNICAL IMPLEMENTATION REPORT

**Pilot Study
on**

**ENVIRONMENTAL PROTECTION EXPENDITURE ACCOUNTS
Grant Agreement in the field of Environmental Accounts**

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CONTENTS

Background

- I. OBJECTIVES OF THE PILOT PROJECT**
- II. FULFILLMENT OF PLANNED ACTIONS**
 - 2.1 Main concepts and organization of EPEA
 - 2.1.1 Definition and scope of environmental protection
 - 2.1.2 Environmental protection (EP) producers and producers
 - 2.1.3 National environmental protection expenditure
- III EXISTING DATA SOURCE AND DATA AVAILABILITY**
 - 3.1 Data collection
 - 3.2. Preparation of the survey methodology and questionnaire
 - 3.2.1 Environment expenditures survey
 - 3.2.2 Specialized producers' survey
 - 3.2.3 Annual Business survey
- IV. CONSTRUCTION OF THE ENVIRONMENTAL PROTECTION EXPENDITURE ACCOUNT FOR BULGARIA**
 - 4.1 The production Table (Table B)**
 - 4.1.1 Non-financial corporations
 - 4.1.2 General Government
 - 4.1.3 Households
 - 4.2 Table B 1 Supply-uses of characteristic services**
 - 4.3 Table A National expenditure by users**
 - 4.4 Table C Financing of national expenditure**
- V. APPLICATION OF EPEA**
- VI. PROBLEMATIC AREAS**
- VII. FURTHER STEPS**
- VIII. CONCLUSIONS**
- ANNEX I**

Background:

The Environmental protection expenditure is one of the modules of the System of Integrated Environmental and Economic Accounting (SEEA). SEEA is a system of accounts presenting in a sequence the resources and their use within the framework of a given year. The Environmental protection expenditure accounts (EPEA) follow the conventions of national accounts and it is important to maintain the consistency with national accounts. ESA 95 is a basic methodological guidance on compilation of accounts not only on European level but within the country too.

As an integrated framework they can be compared to a large range of macro-economic indicators. In this way they could be used for political decision making processes and development of sustainability indicators.

Pilot Study on Environmental protection expenditure accounts is implemented under the *Grant Agreement in the field of Environmental Accounts* (Agreement Number No. 50304.2008.001-2008.324). The project is financially aided by Eurostat as priority area in a view of necessary EU-wide harmonized reporting. When starting the work on the project NSI of Bulgaria had not compiled Environmental Protection Expenditure Accounts.

The project started on 1 January 2009 and had 19-months duration.

The project work was carried out by experts from NSI “Environment and Energy Statistics” Division in a close collaboration with experts from “Statistics of Industry” Division and “Non-financial National Accounts” Division of NSI.

I. OBJECTIVES OF THE PILOT PROJECT

The purpose of the present project is to assist the NSI of Bulgaria in compiling this kind of monetary satellite accounts aiming to show the state of the environment’s elements in our country and to assure consistency and comparability between the data of different countries.

The whole analyze at macroeconomic level of connection *economy-environment* cannot be put in practice without using the information from SNA (System of National Accounts). In particular, the correspondence of data which distinguish environment protection and whole economical activities suppose use of identical concepts, at least coherent, between those two informational systems. Other questions, on which we aim to receive an answer, are: what are the weak points and the ways for improvement of data sources and methods for future work. One other side is related to indicating what the society does against environmental problems and analysing to what extent the pollutant pays and how the competitive powers of the industries are effected.

In view of the importance of the tables (A – Use of environmental protection services; B – Supply of environmental protection services; C – Financing) for presenting a valuable macro-economic overview on the national economy in the sphere of Environmental Protection, some of the main objectives of the project concern the identification of gaps and inconsistencies in basic data sources, checking the plausibility and completeness of the figures and the compilation of estimates for indicators for which less reliable information is available.

Therefore, for the needs of the project it was also necessary to identify the key problem areas, which need further discussions and the improvements to be done aiming to achieve more consistent, harmonized and plausible Environmental Protection Expenditure Accounts (EPEA).

The long-term objective of the work based on acquired knowledge and experience is also the regular production of data into time-series.

Main purpose of the pilot project was the compilation of separate accounts for the following environmental domains:

Wastewater
Waste
Air
Other environmental protection.

- Acquaintance with the methodology of accounts;
- Examination of data sources in conformity with SEEA and ESA 95 methodology and studying data availability;
- Elaborating methodology for compilation of tables for Bulgaria using the methodology, definitions and concepts of the ESA 95 and possible available data.

Other objectives of the project were:

- Improving quality of data reported to Eurostat by OECD/Eurostat Joint Questionnaire “Environmental Protection Expenditures and Revenues”;
- Analyzing the data sources and data collection methods in order to harmonize the accounts with the international standards;
- Working out data collection system for regular production of environmental protection expenditure accounts year by year;
- Identification of data gaps and the necessary modifications and adjustments of the existing systems to promote compilation of environmental protection expenditure accounts.

II. FULFILLMENT OF PLANNED ACTIONS

The activities on this project were carried out as follows:

1. Studying the existing methodology.
2. Identification of potential information sources. Screening data availability at different NSI units.
3. Working out and distribution of questionnaires about EPE.
4. Data collection. Preparation and delivery of Interim report.
5. Processing and validation of acquired data.
6. Analysis of obtained data.
7. Compiling EPEA (A,B,C) accounts.

On the first stage of the Project we studied the existing main methodological documents for compiling the EPEA-tables and adopted the recommendations of Eurostat methodological guides. We also analyzed the methodological principles concerning EPEA contained in the Eurostat guides and other methodological sources. As main methodological reference and a

base for organisation of work within the project was applied the SERIEE (European System for the Collection of Economic Information on the Environment) Manual published by Eurostat in 1994 and SERIEE Environmental Protection Expenditure Accounts – Compilation Guide, 2002 edition.

The Guides facilitated the understanding of EPEA principles and specified the framework of EPEA. The adoption of the recommendations of Eurostat methodological guide and terminology and nomenclature used also helped us when compiling the EPEA-tables. The latest guide highlights three major indicators from the EPEA tables: Current and capital expenditure by industry and the financing of these expenditures. It also recommends these indicators to be compiled annually and to compile the full EPEA perhaps every five years.

We also studied OECD/Eurostat Environmental Protection Expenditure and Revenue Joint Questionnaire/SERIEE Environmental Protection Expenditure Account - Conversion Guidelines, 2005 edition.

The EPEA pilot project also took stock of other countries' efforts and methods, for example those of Belgium. Belgian experience provided a thorough methodology for estimating most data with the help of the national accounts' input/output tables.

2.1. Main concepts and organisation of EPEA

EPEA describes the resources for environmental protection allocated by different categories of economic units (national expenditure for environmental protection), the activities which carry out environmental protection as well as the financing of these resources and activities. This description, which within a framework is consistent with the national accounts, facilitates the breakdown of the national expenditure and makes it possible to distribute its financing among the different categories of units: general government and households as consumers; producers; rest of the world.

At the beginning of work the efforts were related to the general information concerning the EPEA principles and nomenclature used.

The purposes of the EPEA are to describe as follows:

- the output of environmental protection services,
- the national expenditure for environmental protection,
- the financing of national expenditure for environmental protection.

The central concept on which the EPEA are founded is the National Expenditure for Environmental Protection. This aggregate gives the total of the economic resources that a nation uses for environmental protection.

Sections A to C briefly describe the definition and scope of environmental protection, the activities characteristic for this field and the actors or units according to their function(s) with respect to environmental protection. Section D describes the institutional organization of environmental protection in Bulgaria.

2.1.1 Definition and scope of environmental protection

“Environmental protection groups together all actions and activities that are aimed at the prevention, reduction and elimination of pollution as well as any other degradation of

environment”. (Eurostat 1994, §2006). This includes measures taken in order to restore the environment after it has been degraded due to the pressures from human activities.

This definition implies that to be included under environmental protection, actions and activities or parts thereof must satisfy the primary purpose criterion (*causa finalis*), i.e. that environmental protection is their prime objective.

For example actions and activities which have a positive effect for the environment are excluded from the field of environmental protection if they serve other goal. On the other hand from the field of environmental protection are excluded actions which may have a positive effect on the environment but do not constitute an environmental protection activity.

To determine which activities are environmental protection activities, a Classification of Environmental Protection Activities (CEPA 2000) is used. This is a classification adopted in 1994 and revised in 2001. CEPA is a functional classification to classify activities, products, outlays and other transactions whose primary purpose is environmental protection.

This nomenclature of activities combines two criteria:

- the nature of the pollution or damage to the environment (air, water, soil, noise, etc.),
- the type of activity (prevention, reduction, measurement, research, etc.).

The structure of the CEPA 2000 as follows:

Table 1. CEPA 2000 classes

1. Protection of ambient air and climate
2. Wastewater management
3. Waste management
4. Protection and remediation of soil, groundwater and surface water
5. Noise and vibration abatement
6. Protection of biodiversity and landscapes
7. Protection against radiation
8. Research and development
9. Other environmental protection activities.

As mentioned in the introduction we will further present data for classes one to three. The classes from four to nine are put together into one single class (Other EP activities).

2.1.2 Environmental protection (EP) producers and producers

There are three main categories of actors that need to be identified: government, enterprises and households and their economic transactions for the protection of the environment in order to establish the environmental protection expenditure accounts (also non-profit institutions serving households should be considered).

Characteristic producers are producer units of the national economy which execute characteristic activities.

They may undertake environmental protection activities as:

- ***Specialized producers*** execute a characteristic activity as their principal activity. Referring to the NACE Rev. 1, these producers can be identified. Government specialized producers are distinguished from other specialized producers (mainly enterprises).

- ***Non-specialized*** characteristic producers execute a characteristic activity as secondary and ancillary to a principal non-characteristic activity. For ancillary non-specialized producers these are that undertake environmental protection activities in-house for own use in order to limit the negative effects of their main production activity on the environment. These producers are regrouped according to their non-characteristic activity. (Eurostat 2002)

The production of EP services is valued in accordance with national accounts conventions.

- Market output is valued at basic prices, i.e. “the price received by the producer from the purchaser less any tax on products plus any subsidy on products” (Eurostat 2002).
- “Non-market output is equal to EP services that are provided free, or at prices that are not economically significant, to other units and is valued by the total costs of production. By analogy ancillary output is also valued by the total costs of production” (Eurostat 2002).

2.1.3 National environmental protection expenditure

Eurostat describes and elaborates on the definition and scope of aggregate national environmental protection expenditure and are cited below (Eurostat 2002).

In a National Accounts perspective, environmental protection expenditure (EPE) includes:

a) The domestic uses of EP products (goods and services). These EP products are either EP services (e.g. waste or wastewater collection and treatment services) or connected and adapted products (e.g. refuse containers, catalytic converters, lead free gasoline, etc.). Uses are either final uses (final consumption or capital formation) or intermediate consumption. EPE also includes the value of the EP services produced in-house for internal use to reduce the environmental impact of the main production activities (ancillary activities).

b) Domestic gross capital formation for environmental protection (investments for EP).

c) Those transfers for EP that are not already reflected in the expenditure recorded under the two previous categories. These are in particular subsidies, which are lower the prices paid by the users of EP services. Ignoring these subsidies would result in an underestimation of total expenditure. However, in practice such subsidies are often not very important. In practical accounting transfers without a counterpart in basic data may also be important (e.g. government transfers designed to fund environmental protection to non-profit institutions, farmers or others when the expenditure of these beneficiaries is not surveyed). These transfers are also to be included in EPE when data on the EP expenditure of the beneficiaries are not available.

The sum of these components gives total domestic EPE. Adding transfers (financing) to the rest of the world and deducting transfers received from the rest of the world leads to total national EPE. This aggregate is constructed in a way that avoids double counting and makes the sum comparable with standard National Accounts aggregates such as Gross Domestic Product (GDP) or Gross National Income (GNI.)

III. EXISTING DATA SOURCE AND DATA AVAILABILITY

3.1 Data collection

Data collection for public administration

With regard to data collection for public administration, the budgetary accounting is the main source of information. The analysis of the public administration units' expenditures (local and central) can be done based on the data from budgetary balance sheets. There are some inconsistencies between the national budgetary classification and some chapters of the classification of specific activities for environmental protection. Some chapters of budgetary classification do not allow to detail the waste collection and disposal activities, wastewater treatment and disposal activities. Also it is almost impossible to identify the investments that refer to cleaner technologies as well as the estimation of consumption of fixed capital at the level of specific activities. Once over passing these activities, a general analysis can be done for the environmental protection activities of public administration at central or local level, using the presented accounting framework. Due to difficulties in exploring the public accounts generated by the ambiguity of budgetary classification regarding the evidence of environmental protection activities, this first evaluation must be completed with new data series. These data series can be obtained by statistical surveys organized at the level of local and central public administration activities.

Data collection for enterprises

Data collection on the environmental protection expenditure needs to be considered as an integrated activity of the statistical representation requests in the field of environmental protection and also of the units' interests in evaluation of their own environmental performances. The success of that activity comes from the way in which an integration between the potential benefits of units are done, as a consequence of evidencing the environmental expenditure, and the way of reflecting the efficacy of environmental protection measures. In practice, even if the evaluation of environment and of the effects of environmental policies is difficult, the uses of data on environmental expenditure can orientate the general management of units by supplying indications on the environmental benefits coming as a result of an integrated policy "*environment-economy*".

During the analysis of the Eurostat materials NSI identified the main data sources and the scope of information in EPEA. The main data sources are the following:

- Annual Environmental Protection Expenditure Survey (NSI, Bulgaria);
- Annual Business Survey – Book-keeping balance sheet; Receipts and expenditures reports (NSI, Bulgaria);
- National Accounts - Supply-Use tables; production and final expenditure approaches for GDP calculation by National Accounts (NSI, Bulgaria).

The possibility to fill-in the EPEA, mainly Table B, was checked by using the data obtained from the Annual surveys of Environmental Protection Expenditure at current prices and National Accounts. Data are available on: Intermediate consumption, Revenues, Gross Fixed Capital Formation, Current and capital transfers. As we have available data on environmental protection expenditure in Bulgaria, the work was mainly focused on comparison between Joint Questionnaire on EPER and EPEA accounts, widely described in the publications as *OECD/Eurostat Environmental Protection Expenditures and Revenue Joint Questionnaire/SERIEE Environmental Protection Expenditure Account*

It is determined that information about environmental protection expenditure included in the account according to the example on industry constitutes a base for filling-in Table B in EPEA.

According to the SERIEE system (Table B) output is calculated in the following way:

Intermediate consumption (IC)
+ compensation of employees (CE)
+ consumption of fixed capital (CFC)
+ other taxes (OT)
+/- net operating surplus (NOS)
- subsidies (SUBS)
= **Output**

The surveys on environmental protection expenditure only record what we call "operational expenditure" which includes e.g. wages and salaries, cost of input materials, fees to municipal wastewater treatment. The "operational expenditure" equals (roughly) to the sum of IC, CE and OT.

Data necessary to fill-in Tables A and C requires other source of information, therefore an analysis of information for the needs of the EPEA accounts in Bulgaria was carried out. The following data sources were taken into account:

- Budget accounts by institutional units - Central Government; Local government, including extra-budgetary funds and accounts provided by the Ministry of Finance, Budget Department;
- Industry statistics;
- Results of surveys on environmental protection expenditure in Bulgaria – in business sector, public sector, specialized producers;

Data searched for in National accounts, budget analyses and industry surveys refers to:

- Output,
- Intermediate consumption,
- Value added by elements,
- Import and export of environmental protection services (data source: Balance of Payment)
- Final consumption of EP services,
- VAT and other taxes on products,
- Subsidies on products, etc.

3.2. Preparation of the survey methodology and questionnaire

3.2.1. Environment expenditures survey

Short description of the Methodologies for Data Collection of Environmental Expenditures in Bulgaria. This survey is included in the regular work programme of the NSI and is held on an annual basis. The survey is regulated by next documents: "Law on Statistics"; "Law on Accountancy" and "National Book-keeping Scheme".

Information about investments and current environmental expenditure is collected by NSI since 1982 through a survey covering the general population of legal persons making environmental expenditures. Statistical unit of the survey is the enterprise as a legal person and expenditure of Public sector which covers only 75 NACE, Rev. 1. The reporting units

are identified on the basis of the Business Register. The collected data is available by all environmental domains according to CEPA 2000. During the year expenditures are calculated at current prices.

Definitions included in the survey's questionnaire are based on the definitions presented in the *Joint/OECD Environmental protection expenditure questionnaire* and draft *Industry Environmental Expenditure Statistics Data Collection Guidebook*.

- Environmental protection expenditure is the sum of capital and current expenditures for the undertaking of environmental protection activities.

- Environmental protection is an action or activity (which involves the use of equipment, labour, manufacturing techniques and practices, information networks or products) where the main purpose is to collect, treat, reduce, prevent, or eliminate pollutants and pollution or any other degradation of the environment resulting from the operating activity of the company.

The environmental expenditure survey provides data aggregated according to the reporting obligations of SBS (based on Council Regulation N° 58/97) on the following environmental variables:

21 14 0 Total current expenditure for environmental protection

21 11 0 Investment in equipment, installations and accessories directly used for environmental protection – mainly end-of-pipe equipment

21 12 0 Investment in equipment and installations linked to cleaner technology (“integrated technology”)

The main task of the survey is to give an answer to policy questions such as:

- How much money is spent on environmental protection?
- What are the effects on company competitiveness?

Problem areas:

- Up to now the enterprises are not always able to report the environmental protection expenditure in details. The existing accounting practice does not include detailed records on environmental expenditure.
- Difficulties in collecting data related to *receipts from by-products*.
- Up to now data about *fees and purchase* (B2) for JQ on EPE have been calculated using coefficients provided by National Accounts – Supply-Use tables.
- Now we have not a specific breakdown in the annual records of undertakings related to the environment.

For statistical and JQ on EPE purposes we decided to include a new section for 2009 reporting:

- **Receipts from by-products.** This kind of information is considered necessary for compilation of the tables and observing the requirements of environmental accounting. In the section of the questionnaire receipts were broken down by main areas of the environment.

We also decided to include additional indicators in the questionnaires related to the Environment and for EPEA compilation:

- Other taxes and subsidies on production;
- Other taxes and subsidies on products.

3.2.2. Specialized producers' survey

As the information on compensation of employees and consumption of fixed capital required by Table B of EPEA was not available, a separate survey questionnaire directed to specialized producers was prepared and next sent to all units of 90 NACE, Rev. 1. (Annex I).

3.2.3 Annual Business survey

Through these surveys several variables were collected in classes 9001, 9002, 9003 of the NACE (specialized producers). For statistical and EPEA purposes we decided to add additional indicators for 2009 reporting which allow more detailed breakdown for future information needs. To expand the scope of the research environment we also decided to add new additional questionnaire incorporated in the Annual balance sheet for 2010 reporting.

Data on the demand of environmental services as well as adapted and connected products by service industries are not included in the environmental protection expenditure account as the

necessary information is not available from statistical sources. Demand data refers only to private households. These data are derived from the environment industry account.

IV. CONSTRUCTION OF THE ENVIRONMENTAL PROTECTION EXPENDITURE ACCOUNT FOR BULGARIA

In Bulgaria, the information relating to the environment covers different institutional sectors. The institutional sectors at large cover the institutional units - residents within the economic territory of the country. Data by institutional sector are formed on the basis of re-grouping the data compiled by activities in respect of economic aims, functions and behavior of economic units.

For filling-in the missing information we designed a method to evaluate the most data, using the National accounts' Input-Output tables. In the case of government activities and transfers data from national accounts and environmental accounts were used. In most cases, data from national accounts differ from those contained in the statements on the environment.

In order to establish the environmental protection expenditure accounts three main categories of actors need to be identified: general government, non-financial corporations and households and their economic transactions for the protection of the environment (also non-profit institutions serving households should be considered). In the present analysis we examine the three main institutional sectors, where information is available on expenses incurred in the environmental field:

- **Non-financial corporations** sector consists of all units producing market goods and non-financial services in order to make profit. They hold a full set of book-keeping accounts, including the bookkeeping balance sheet.

- **General Government** sector consists of the government legal entities providing individual and collective services to households and the society as a whole (central government - ministries and authorities; local government - local authorities), as well as the enterprises financed and controlled by the government and central funds for social security.

- **Households** sector consists of all households-residents irrespective of the number of their members and type. All households are consumers of goods and services. Some of them are producers mainly for their own consumption. This sector includes also unincorporated units producing for the market that cannot be referred to “Non-financial corporations” sector. The units owned by resident persons with single-entry book-keeping are also included here.

As mentioned above the EPEA tables are a set of tables to identify the total amount of economic resources for protecting the environment. The main result should be an aggregate indicator that is fully consistent with the national accounts. The aggregate indicator is, according to theory, best suited for international comparisons and the more detailed components of the aggregate best suited for national policy application.

In practice it is very difficult to compile full EPEA. Variables, sectors and environmental domains all add to the complexity of the accounts. Nevertheless, each component provides interesting knowledge and results.

In Bulgaria, the main policy tools for environmental protection and management are based on 16 environmental quality objectives. Linking the goals to expenditure of the economy and their flows proved to be difficult. It is so partly because the goals of the quality objectives rarely specify an industry, and partly because the data cannot be identified on the required level of detail. However, following the structure of the EPEA it links data on expenditure by the private sector and transfers (subsidies and investment grants) by the government into comparable sets of tables ready to be used.

4.1 The production Table (Table B)

4.1.1 Non-financial corporations

Use of statistical surveys data and administrative data. In Bulgaria, annual output estimates of GDP are mainly based on direct approach – data collection from annual surveys. The production boundary includes all economic activities of all resident units that produce goods and services. All units (enterprises and also sub-divisions) are obliged to respond according the Statistical Law and therefore all three types of producers defined at institutional unit level and recognized in the valuation of production operations as market producer, non-market producer and producer for own final consumption are covered by the statistical surveys. The market output is derived on the base of revenue items, while non-market is calculated as a sum of current costs.

Market production

Gross output as a result of production activity of resident units is equal to the value of goods and services produced by them during the reported period.

Market output consists of all sold or bartered products, and services or ones intended for resale at prices which can influent on market demand. The market output estimate is calculated as a sum of net revenue from sales of goods and services; the expenditures on acquisition and capital repair of fixed tangible assets on own account; other operating revenues and changes in inventories of finish goods and work-in-progress.

The compilation of the output of market producers is based on information from the enterprises and their sub-divisions concerning their production (primary and secondary) of

goods and services. Annual statistical reports on revenues and expenditure and related statistical reference tables – provided by all public and private enterprises with double-entry bookkeeping are the main data source for industry branches. For the private firms with single-entry bookkeeping as the less detailed annual statistical report is used, the sales of goods and services from annual statistical survey are compared with the corresponding values of the production statistics, because this survey contains product information. When gaps and inconsistencies are identified, the differences should be eliminated on unit, respectively branch level. From report on production and sales of industrial output more than 4000 items (products) of *Mining and quarrying* and *Manufacturing* in quantity and value terms are available and aggregated in table framework. Small units keeping single-entry accounting system and self-employed persons are treated by assumption as units of homogeneous production.

All units (enterprises and establishments) are obliged to respond to the surveys under the *Law on Statistics*. Public enterprises generally have a 100 percent response rate, but it is less for private firms and varies by type of activity. The Basic Statistics Divisions make estimates for the non-response based on the information from different statistical surveys.

In Bulgarian statistical practice the statistical unit is quite close to local kind of activity unit and it is classified with all its activity to the corresponding economic activity on the basis of its principal activity, even if the unit has any secondary activity.

All statistical surveys are conducted using the Statistical Register. Statistical reports are collected from the whole enterprise as well as from local kind of activity unit. Specific questionnaires are designed for each type of activity.

Statistical surveys cover all types of producers: market producers, non-market producers and producers for own final use.

Annual accounts of enterprises can be considered as a preferable source for estimation of ESA' 95 variables, but the method of calculation makes full use of accounting and administrative data. In Bulgaria all limited-liability corporations should report their accounts by filing them in annual Balance Sheet in a standardized format laid down by the Law on Accountancy. Also the specific annexes are attached with the Balance Sheet. The filled-in annual accounts are therefore the preferred source for estimating ESA 95 aggregates in the output and primary generation of income account of non-financial corporations.

Large corporations are required to submit more information than the small ones. They are required to fill-in 'full' accounts, while smalls may fill-in 'abridged' accounts. These accounts are in fact data extracts from the enterprises' internal financial records.

The relevant legislation lays down the content of the various headings in the balance sheet and profit and loss account (income and costs). In this way, 'micro-economic' variables can be translated into ESA 95 variables.

Production of environmental protection services by the corporations consists of three parts. First, there is the production by the specialized producers of NACE 90. Then there is also the secondary production of industries which are not specialized in the production of environmental protection services. This concerns NACE industries which we chose - 2512, 37, 41, 4511, 4521, 4524, 5157, 7420. Finally, we also turned to ancillary production, mainly of the manufacturing industry.

Most of information for filling-in the Table B was available from an analysis of expenditures for environment protection in Bulgaria.

The production table describes who is producing environmental protection services, i.e. who is supplying waste or wastewater management services as their main task for others (specialized producers with corresponding market and non-market output) and who is managing the provision of measures for environmental protection, but not as a main task (non-specialized producers with secondary activities) and those that are producing EP services for their own use (non-specialized producers with ancillary activities).

The production table consists of a number of variables such as environmental protection output, current environmental protection resources and gross fixed capital formation.

The value of output is calculated using the cost of production: intermediate consumption, compensation of employees, consumption of fixed capital and other taxes on production. Current EP resources are equal to the receipts of the EP producers (EP output that is sold) and current transfers (subsidies and other current transfers from government) for the production of EP services.

Missing in table B is the financing by producers. It could not be calculated as there is a lack of information on investment grants and other capital transfers as a way of financing the capital uses.

NACE 90

The main sources used to complete the production table for NACE 90 are the national accounts and the Statistical Business Register. The national accounts provide us with the totals for intermediate consumption, other taxes on production, compensation of employees, other subsidies on production, as well as gross fixed capital formation. The data are used to distribute these totals between water related companies (NACE 90.01), waste related companies (NACE 90.02) and others (NACE 90.03).

Table 1 shows the evolution of the different items of the production table for NACE 90 during the period 2004-2007.

**Table 1. Table B Production of Environmental Protection Services by NACE 90
(MIO national currency BGN)**

		2004	2005	2006	2007
1.	Current transactions				
1.1	Current uses				
1.1.1	Intermediate consumption	95.52	114.55	140.68	228.18
1.1.2	Compensation of employees	41.36	0.34	0.38	70.55
1.1.3	Consumption of fixed capital	14.53	51.32	52.49	19.39
1.1.4	Other taxes on production	0.98	17.12	15.69	0.45
1.1.5	Less other subsidies on production	0.32	1.86	1.25	2.16
1.1.6	Net operating surplus	11.15	8.54	66.36	13.44
1.2	Output	161.90	190.00	274.35	329.84
1.2.1	Non-environmental output	22.57	18.54	30.14	30.55
1.2.2	Environmental protection output	139.33	171.46	244.21	299.29
1.2.2.1	Non-market	n.a	n.a	n.a	n.a
1.2.2.2	Market	139.33	171.46	244.21	299.29
1.3	Current environmental protection resources	139.33	171.46	244.21	299.29
1.3.1	Market output (including partial payments)	139.33	171.46	244.21	299.29
1.3.2	Current transfers	n.a	n.a	n.a	n.a
2	Capital transfers				
2.1	Gross fixed capital formation	9.97	49.21	18.99	15.63
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	n.a
2.4	Other capital transfers received	n.a	n.a	n.a	n.a
3	Financing by producers	9.97	49.21	18.99	15.63
4	Labour inputs	n.a	n.a	n.a	n.a
5	Stock of fixed assets	n.a	n.a	n.a	n.a

Some comments about data. The total output of NACE 90 has risen by more than twice in the period 2004 – 2007 and environmental output was even higher. The share of intermediate consumption rose from 59% to 69%, and the share of the compensation of employees dropped from 26 to 21%.

The totals in table above are broken down between the environmental domains – water, waste, air (if available) and other in next table for 2004-2007.

**Table 2. Table B Production of Environmental Protection Services by NACE 90
(MIO national currency BGN)**

	2004	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	na	0.81	82.57	12.15	95.52
1.1.2	Compensation of employees	na	0.35	35.75	5.26	41.36
1.1.3	Consumption of fixed capital	na	0.12	12.56	1.85	14.53
1.1.4	Other taxes on production	na	0.01	0.85	0.12	0.98
1.1.5	Less other subsidies on production	na	0.00	0.28	0.04	0.32
1.1.6	Net operating surplus	na	0.09	9.63	1.42	11.15
1.2	Output	na	1.37	139.94	20.59	161.90
1.2.1	Non-environmental output	na	0.19	19.51	2.87	22.57
1.2.2	Environmental protection output	na	1.18	120.43	17.72	139.33
1.2.2.1	Non-market	na	na	na	na	na
1.2.2.2	Market	na	1.18	120.43	17.72	139.33
1.3	Current environmental protection resources	na	1.18	120.43	17.72	139.33
1.3.1	Market output (including partial payments)	na	1.18	120.43	17.72	139.33
1.3.2	Current transfers	na	na	na	na	na
2	Capital transfers					
2.1	Gross fixed capital formation	na	na	9.97	na	9.97
2.2	Other capital uses	nr.	nr.	nr.	nr.	nr.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	na	na	9.97	na	9.97
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

	2005	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	na	0.40	82.33	31.82	114.55
1.1.2	Compensation of employees	na	0.00	0.24	0.09	0.34
1.1.3	Consumption of fixed capital	na	0.18	36.89	14.26	51.32
1.1.4	Other taxes on production	na	0.06	12.30	4.76	17.12
1.1.5	Less other subsidies on production	na	0.01	1.34	0.52	1.86
1.1.6	Net operating surplus	na	0.03	6.14	2.37	8.54
1.2	Output	na	0.66	136.57	52.78	190.00
1.2.1	Non-environmental output	na	0.06	13.33	5.15	18.54
1.2.2	Environmental protection output	na	0.59	123.24	47.63	171.46
1.2.2.1	Non-market	na	na	na	na	na
1.2.2.2	Market	na	0.59	123.24	47.63	171.46
1.3	Current environmental protection resources	na	0.59	123.24	47.63	171.46
1.3.1	Market output (including partial payments)	na	0.59	123.24	47.63	171.46
1.3.2	Current transfers	na	na	na	na	na
2	Capital transfers					
2.1	Gross fixed capital formation	0.96	26.23	15.94	6.09	49.21
2.2	Other capital uses	nr.	nr.	nr.	nr.	nr.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	0.96	26.23	15.94	6.09	49.21
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

	2006	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	n.a	0.43	131.32	8.94	140.68
1.1.2	Compensation of employees	n.a	0.00	0.35	0.02	0.38
1.1.3	Consumption of fixed capital	n.a	0.16	49.00	3.34	52.49
1.1.4	Other taxes on production	n.a	0.05	14.64	1.00	15.69
1.1.5	Less other subsidies on production	n.a	0.00	1.17	0.08	1.25
1.1.6	Net operating surplus	n.a	0.20	61.94	4.22	66.36
1.2	Output	n.a	0.83	256.09	17.44	274.35
1.2.1	Non-environmental output	n.a	0.09	28.13	1.92	30.14
1.2.2	Environmental protection output	n.a	0.74	227.95	15.52	244.21
1.2.2.1	Non-market	n.a	n.a	n.a	n.a	n.a
1.2.2.2	Market	n.a	0.74	227.95	15.52	244.21
1.3	Current environmental protection resources	n.a	0.74	227.95	15.52	244.21
1.3.1	Market output (including partial payments)	n.a	0.74	227.95	15.52	244.21
1.3.2	Current transfers	n.a	n.a	n.a	n.a	n.a
2	Capital transfers					
2.1	Gross fixed capital formation	102.08	8.68	6.95	3.26	18.99
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	n.a	n.a
2.4	Other capital transfers received	n.a	n.a	n.a	n.a	n.a
3	Financing by producers	102.08	8.68	6.95	3.26	18.99
4	Labour inputs	n.a	n.a	n.a	n.a	n.a
5	Stock of fixed assets	n.a	n.a	n.a	n.a	n.a

	2007	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	n.a	0.28	214.96	12.94	228.18
1.1.2	Compensation of employees	n.a	0.09	66.46	4.00	70.55
1.1.3	Consumption of fixed capital	n.a	0.02	18.26	1.10	19.39
1.1.4	Other taxes on production	n.a	0.00	0.42	0.03	0.45
1.1.5	Less other subsidies on production	n.a	0.00	2.04	0.12	2.16
1.1.6	Net operating surplus	n.a	0.02	12.67	0.76	13.44
1.2	Output	n.a	0.40	310.74	18.70	329.84
1.2.1	Non-environmental output	n.a	0.04	28.78	1.73	30.55
1.2.2	Environmental protection output	n.a	0.36	281.96	16.97	299.29
1.2.2.1	Non-market	n.a	n.a	n.a	n.a	n.a
1.2.2.2	Market	n.a	0.36	281.96	16.97	299.29
1.3	Current environmental protection resources	n.a	0.36	281.96	16.97	299.29
1.3.1	Market output (including partial payments)	n.a	0.36	281.96	16.97	299.29
1.3.2	Current transfers	n.a	n.a	n.a	n.a	n.a
2	Capital transfers					
2.1	Gross fixed capital formation	0.04	8.91	4.14	2.53	15.63
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	n.a	n.a
2.4	Other capital transfers received	n.a	n.a	n.a	n.a	n.a
3	Financing by producers	0.04	8.91	4.14	2.53	15.63
4	Labour inputs	n.a	n.a	n.a	n.a	n.a
5	Stock of fixed assets	n.a	n.a	n.a	n.a	n.a

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

We used individual data from the register and split-up of each of the items in the production table. From regular environment protection expenditure data we decided to calculate coefficients based on the proportions of total expenditure in the NACE sector 90 relative to the different environmental domains. After that we determined the total amounts for the current and capital transactions in EP services. Secondly, the obtained coefficients were multiplied by the respective indicators in the production Table (Table B) and were received the allocated expenditures by environmental domains in public sector.

The total amounts were allocated to the different domains – waste, water, air and other, on the basis of the distribution of the expenditure.

With regard to waste, according to the Law on Municipalities the municipalities are responsible for providing communal services to households. They are provided to the population by the specialized utilities owned by the municipalities or upon agreement with a private enterprise. There is no centralized waste management system. The costs for solid waste management are covered from the budgets of local governments and by the payments for waste management. Municipalities perform improvements for environmental infrastructure.

At this stage a problem exists with the division NACE 41 which means we cannot separate the uses dealing with water supply and wastewater supply.

In Bulgaria, most of the companies providing wastewater services are classified in NACE category 41 because their main activity is water supply. Up to now we cannot separate the environmental expenditure of organizations that are specialized producers, of environmental expenditure of organizations with water supply activity because it is usually the same company that provides water supply and wastewater services. The companies that belong to NACE 4100, are accounted as non-specialized producers and were added to secondary producers.

Over the period 2004 - 2007 the share of “water” companies in total environmental protection output was very small. For gross fixed capital formation it was more balanced between the two environmental domains (water and waste), except in 2004. As a consequence, financing by producers from the sector of “water” companies was very small.

In “waste” domain output for specialized producers increased from 139.94 to 310.74 Mill. BGN for 2004-2007. The market output from waste collecting and treatment is 120.43 Mill. BGN (2004) and 281.96 Mill. BGN (2007). Intermediate consumption is about 82.57 to 214.96 Mill. BGN and compensation of employees – 35.75 to 66.46 Mill. BGN for to the period.

Secondary producers

The NACE industries which we included in secondary producers are - 2512, 37, 41, 4511, 4521, 4524, 5157, 7420.

The information from environmental expenditure survey and supply tables allowed us to calculate a ratio of environmental protection output to the total output for the different secondary producer industries in the four years under review. Then these ratios were applied to the national accounts' figures on total output of the industries in order to estimate environmental protection output of these industries.

The belonging of the companies in the different industries to the waste, water or air domains is defined on the basis of the BULSTAT business register. The latter provides several NACE codes for individual companies depending on the prevailing secondary activity. We selected all enterprises belonging to NACE 2512, 37, 41, 4511, 4521, 4524, 5157, 7420.

Table 3. Table B Production of Environmental Protection Services by secondary producers (MIO national currency BGN)

		2004	2005	2006	2007
1.	Current transactions				
1.1	Current uses				
1.1.1	Intermediate consumption	8.25	3.09	21.19	28.61
1.1.2	Compensation of employees	1.34	0.71	2.79	2.52
1.1.3	Consumption of fixed capital	0.49	0.23	1.24	1.25
1.1.4	Other taxes on production	0.01	0.00	0.03	0.03
1.1.5	Less other subsidies on production	0.03	0.01	0.01	0.20
1.1.6	Net operating surplus	0.62	0.27	3.79	7.69
1.2	Output	10.68	4.30	29.02	39.89
1.2.1	Non-environmental output	n.a	n.a	n.a	n.a
1.2.2	Environmental protection output	10.68	4.30	29.02	39.89
1.2.2.1	Non-market	n.a	n.a	n.a	n.a
1.2.2.2	Market	10.68	4.30	29.02	39.89
1.3	Current environmental protection resource	10.68	4.30	29.02	39.89
1.3.1	Market output (including partial payments)	10.68	4.30	29.02	39.89
1.3.2	Current transfers	n.a	n.a	n.a	n.a
2	Capital transfers				
2.1	Gross fixed capital formation	0.61	0.29	2.06	3.68
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	n.a
2.4	Other capital transfers received	n.a	n.a	n.a	n.a
3	Financing by producers	0.61	0.29	2.06	3.68
4	Labour inputs	n.a	n.a	n.a	n.a
5	Stock of fixed assets	n.a	n.a	n.a	n.a

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

Table 4. Table B Production of Environmental Protection Services by secondary producers by domains (MIO national currency BGN)

	2004	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	n.a	7.39	0.11	0.76	8.25
1.1.2	Compensation of employees	n.a	1.20	0.02	0.12	1.34
1.1.3	Consumption of fixed capital	n.a	0.44	0.01	0.04	0.49
1.1.4	Other taxes on production	n.a	0.01	0.00	0.00	0.01
1.1.5	Less other subsidies on production	n.a	0.03	0.00	0.00	0.03
1.1.6	Net operating surplus	n.a	0.56	0.01	0.06	0.62
1.2	Output	n.a	9.56	0.14	0.98	10.68
1.2.1	Non-environmental output	n.a	n.a	n.a	n.a	n.a
1.2.2	Environmental protection output	n.a	9.56	0.14	0.98	10.68
1.2.2.1	Non-market	n.a	n.a	n.a	n.a	n.a
1.2.2.2	Market	n.a	9.56	0.14	0.98	10.68
1.3	Current environmental protection resource	n.a	9.56	0.14	0.98	10.68
1.3.1	Market output (including partial payments)	n.a	9.56	0.14	0.98	10.68
1.3.2	Current transfers	n.a	n.a	n.a	n.a	n.a
2	Capital transfers					
2.1	Gross fixed capital formation	n.a	0.36	0.04	0.22	0.61
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	n.a	n.a
2.4	Other capital transfers received	n.a	n.a	n.a	n.a	n.a
3	Financing by producers	n.a	0.36	0.04	0.22	0.61
4	Labour inputs	n.a	n.a	n.a	n.a	n.a
5	Stock of fixed assets	n.a	n.a	n.a	n.a	n.a

	2005	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	n.a	2.52	0.30	0.27	3.09
1.1.2	Compensation of employees	n.a	0.58	0.07	0.06	0.71
1.1.3	Consumption of fixed capital	n.a	0.19	0.02	0.02	0.23
1.1.4	Other taxes on production	n.a	0.00	0.00	0.00	0.00
1.1.5	Less other subsidies on production	n.a	0.01	0.00	0.00	0.01
1.1.6	Net operating surplus	n.a	0.22	0.03	0.02	0.27
1.2	Output	n.a	3.50	0.41	0.38	4.30
1.2.1	Non-environmental output	n.a	n.a	n.a	n.a	n.a
1.2.2	Environmental protection output	n.a	3.50	0.41	0.38	4.30
1.2.2.1	Non-market	n.a	n.a	n.a	n.a	n.a
1.2.2.2	Market	n.a	3.50	0.41	0.38	4.30
1.3	Current environmental protection resource	n.a	3.50	0.41	0.38	4.30
1.3.1	Market output (including partial payments	n.a	3.50	0.41	0.38	4.30
1.3.2	Current transfers	n.a	n.a	n.a	n.a	n.a
2	Capital transfers					
2.1	Gross fixed capital formation	n.a	0.24	0.02	0.02	0.29
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	n.a	n.a
2.4	Other capital transfers received	n.a	n.a	n.a	n.a	n.a
3	Financing by producers	n.a	0.24	0.02	0.02	0.29
4	Labour inputs	n.a	n.a	n.a	n.a	n.a
5	Stock of fixed assets	n.a	n.a	n.a	n.a	n.a

	2006	Air	Water	Waste	Other	Total
	Current transactions					
	Current uses					
	Intermediate consumption	0.01	16.68	2.19	2.32	21.19
	Compensation of employees	0.00	2.19	0.29	0.30	2.79
	Consumption of fixed capital	0.00	0.97	0.13	0.14	1.24
	Other taxes on production	0.00	0.02	0.00	0.00	0.03
	Less other subsidies on production	0.00	0.00	0.00	0.00	0.01
	Net operating surplus	0.00	2.98	0.39	0.41	3.79
	Output	0.01	22.84	3.00	3.17	29.02
	Non-environmental output	n.a	n.a	n.a	n.a	n.a
	Environmental protection output	0.01	22.84	3.00	3.17	29.02
	Non-market	n.a	n.a	n.a	n.a	n.a
	Market	0.01	22.84	3.00	3.17	29.02
	Current environmental protection resource	0.01	22.84	3.00	3.17	29.02
	Market output (including partial payments	0.01	22.84	3.00	3.17	29.02
	Current transfers	n.a	n.a	n.a	n.a	n.a
	Capital transfers					
	Gross fixed capital formation	0.00	1.59	0.42	0.04	2.06
	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
	Investment grants received	n.a	n.a	n.a	n.a	n.a
	Other capital transfers received	n.a	n.a	n.a	n.a	n.a
	Financing by producers	0.00	1.59	0.42	0.04	2.06
	Labour inputs	n.a	n.a	n.a	n.a	n.a
	Stock of fixed assets	n.a	n.a	n.a	n.a	n.a

	2007	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.00	17.04	8.51	3.05	28.61
1.1.2	Compensation of employees	0.00	1.50	0.75	0.27	2.52
1.1.3	Consumption of fixed capital	0.00	0.75	0.37	0.13	1.25
1.1.4	Other taxes on production	0.00	0.02	0.01	0.00	0.03
1.1.5	Less other subsidies on production	0.00	0.12	0.06	0.02	0.20
1.1.6	Net operating surplus	0.00	4.58	2.29	0.82	7.69
1.2	Output	0.01	23.76	11.86	4.26	39.89
1.2.1	Non-environmental output	n.a	n.a	n.a	n.a	n.a
1.2.2	Environmental protection output	0.01	23.76	11.86	4.26	39.89
1.2.2.1	Non-market	n.a	n.a	n.a	n.a	n.a
1.2.2.2	Market	0.01	23.76	11.86	4.26	39.89
1.3	Current environmental protection resource	0.01	23.76	11.86	4.26	39.89
1.3.1	Market output (including partial payments	0.01	23.76	11.86	4.26	39.89
1.3.2	Current transfers	n.a	n.a	n.a	n.a	n.a
2	Capital transfers					
2.1	Gross fixed capital formation	0.01	2.20	1.41	0.06	3.68
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	n.a	n.a
2.4	Other capital transfers received	n.a	n.a	n.a	n.a	n.a
3	Financing by producers	0.01	2.20	1.41	0.06	3.68
4	Labour inputs	n.a	n.a	n.a	n.a	n.a
5	Stock of fixed assets	n.a	n.a	n.a	n.a	n.a

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

Ancillary producers

Ancillary production concerns in-house environmental protection expenditure by companies. Both current expenditure and investment are dealt with. The data concerning investment and current expenditure are based on an environmental expenditure survey carried out by the National Statistical Institute for the years 2004 to 2007. Separate data have been compiled for NACE industries 10-14, 15-16, 17-19, 20, 21-22, 23, 24-25, 26, 27, 28-36, and 40. Ancillary production by other sectors was calculated separately. These are NACE activities which have lower share in the expenditure such as: from 01-05, 45-63, and 70-91. They are excluded from secondary activities described above.

For each activity listed above required indicators are defined, for which the relevant calculations are made for. For these calculations the following information is used:

- Information from the regular annual reporting that all business units are required to submit to the NSI.
- Information from the regular annual survey on environmental expenditure, from which data by environmental domains are used.

Based on this information coefficients are calculated by which the share of each environmental domain in the System of National Accounts - air, water, waste and other.

A similar approach is used in regard to ancillary production by other sectors.

Coefficients were estimated as ratios between environmental expenditure and total output for each industry. After that an average ratio of the sum of all industries was calculated. In other words, we estimated the values as multiplied proportions then split into its different components (intermediate consumption, compensation of employees, etc.) on the basis of these components' share in each industry's total output.

Table 5. Table B Production of Environmental Protection Services by ancillary producers (MIO national currency BGN)

		2004	2005	2006	2007
1.	Current transactions				
1.1	Current uses				
1.1.1	Intermediate consumption	190.07	250.18	385.24	374.02
1.1.2	Compensation of employees	28.31	25.34	40.07	37.72
1.1.3	Consumption of fixed capital	24.21	19.93	36.62	33.19
1.1.4	Other taxes on production	0.21	0.13	0.27	0.20
1.1.5	Less other subsidies on production	0.76	0.24	0.23	1.20
1.1.6	Net operating surplus				
1.2	Output	242.03	295.33	461.96	443.92
1.2.1	Non-environmental output	n.a	n.a	n.a	na
1.2.2	Environmental protection output	242.03	295.33	461.96	443.92
1.2.2.1	Non-market	n.a	n.a	n.a	na
1.2.2.2	Market	242.03	295.33	461.96	443.92
1.3	Current environmental protection resources	n.a	n.a	n.a	na
1.3.1	Market output (including partial payments)	n.a	n.a	n.a	na
1.3.2	Current transfers	n.a	n.a	n.a	na
2	Capital transfers				
2.1	Gross fixed capital formation	24.16	32.23	28.28	49.67
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a	n.a	n.a	na
2.4	Other capital transfers received	n.a	n.a	n.a	na
3	Financing by producers	266.19	327.56	490.25	493.59
4	Labour inputs	n.a	n.a	n.a	na
5	Stock of fixed assets	n.a	n.a	n.a	na

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

NACE 10-14, 15-16, 17-19, 20, 21-22, 23, 24-25, 26, 27, 28-36, and 40

Ancillary output ranged from 242.03 to 443.92 Mill. BGN for the period 2004-2007. It generally increased, but in 2007 there is a decrease of about 4% compared to 2006.

Table 6. Table B Production of Environmental Protection Services by ancillary producers by domains (MIO national currency BGN)

	2004	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	54.94	61.47	26.01	47.64	190.07
1.1.2	Compensation of employees	8.18	9.15	3.87	7.10	28.31
1.1.3	Consumption of fixed capital	7.00	7.83	3.31	6.07	24.21
1.1.4	Other taxes on production	0.06	0.07	0.03	0.05	0.21
1.1.5	Less other subsidies on production	0.22	0.25	0.10	0.19	0.76
1.1.6	Net operating surplus (by definition 0)					
1.2	Output	69.97	78.27	33.13	60.67	242.03
1.2.1	Non-environmental output	na	na	na	na	na
1.2.2	Environmental protection output	69.97	78.27	33.13	60.67	242.03
1.2.2.1	Non-market	na	na	na	na	na
1.2.2.2	Market	69.97	78.27	33.13	60.67	242.03
1.3	Current environmental protection resources	na	na	na	na	na
1.3.1	Market output (including partial payments)	na	na	na	na	na
1.3.2	Current transfers	na	na	na	na	na
2	Capital transfers					
2.1	Gross fixed capital formation	12.38	4.05	1.05	6.68	24.16
2.2	Other capital uses	nr.	nr.	nr.	nr.	nr.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	82.35	82.32	34.17	67.35	266.19
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

	2005	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	82.57	81.51	28.46	57.64	250.18
1.1.2	Compensation of employees	8.36	8.25	2.88	5.84	25.34
1.1.3	Consumption of fixed capital	6.58	6.49	2.27	4.59	19.93
1.1.4	Other taxes on production	0.04	0.04	0.01	0.03	0.13
1.1.5	Less other subsidies on production	0.08	0.08	0.03	0.06	0.24
1.1.6	Net operating surplus (by definition 0)					
1.2	Output	97.47	96.22	33.60	68.04	295.33
1.2.1	Non-environmental output	na	na	na	na	na
1.2.2	Environmental protection output	97.47	96.22	33.60	68.04	295.33
1.2.2.1	Non-market	na	na	na	na	na
1.2.2.2	Market	97.47	96.22	33.60	68.04	295.33
1.3	Current environmental protection resources	na	na	na	na	na
1.3.1	Market output (including partial payments)	na	na	na	na	na
1.3.2	Current transfers	na	na	na	na	na
2	Capital transfers					
2.1	Gross fixed capital formation	22.94	2.65	1.31	5.32	32.23
2.2	Other capital uses	nr.	nr.	nr.	nr.	nr.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	120.42	98.87	34.92	73.35	327.56
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

	2006	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	124.46	102.56	39.73	118.48	385.24
1.1.2	Compensation of employees	12.94	10.67	4.13	12.32	40.07
1.1.3	Consumption of fixed capital	11.83	9.75	3.78	11.26	36.62
1.1.4	Other taxes on production	0.09	0.07	0.03	0.08	0.27
1.1.5	Less other subsidies on production	0.07	0.06	0.02	0.07	0.23
1.1.6	Net operating surplus (by definition 0)					
1.2	Output	149.25	122.99	47.65	142.08	461.98
1.2.1	Non-environmental output	na	na	na	na	na
1.2.2	Environmental protection output	149.25	122.99	47.65	142.08	461.98
1.2.2.1	Non-market	na	na	na	na	na
1.2.2.2	Market	149.25	122.99	47.65	142.08	461.98
1.3	Current environmental protection resources	na	na	na	na	na
1.3.1	Market output (including partial payments)	na	na	na	na	na
1.3.2	Current transfers	na	na	na	na	na
2	Capital transfers					
2.1	Gross fixed capital formation	24.26	1.62	1.27	1.13	28.28
2.2	Other capital uses	nr.	nr.	nr.	nr.	nr.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	173.51	124.61	48.92	143.20	490.25
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

	2007	Air	Water	Waste	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	110.25	111.40	29.23	123.14	374.02
1.1.2	Compensation of employees	11.12	11.23	2.95	12.42	37.72
1.1.3	Consumption of fixed capital	9.78	9.89	2.59	10.93	33.19
1.1.4	Other taxes on production	0.06	0.06	0.02	0.06	0.20
1.1.5	Less other subsidies on production	0.35	0.36	0.09	0.40	1.20
1.1.6	Net operating surplus (by definition 0)					
1.2	Output	130.86	132.22	34.69	146.15	443.92
1.2.1	Non-environmental output	na	na	na	na	na
1.2.2	Environmental protection output	130.86	132.22	34.69	146.15	443.92
1.2.2.1	Non-market	na	na	na	na	na
1.2.2.2	Market	130.86	132.22	34.69	146.15	443.92
1.3	Current environmental protection resources	na	na	na	na	na
1.3.1	Market output (including partial payments)	na	na	na	na	na
1.3.2	Current transfers - niana danni	na	na	na	na	na
2	Capital transfers					
2.1	Gross fixed capital formation	30.80	6.44	7.64	4.79	49.67
2.2	Other capital uses	nr.	nr.	nr.	nr.	nr.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	161.66	138.66	42.33	150.95	493.59
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

NACE 10-14, 15-16, 17-19, 20, 21-22, 23, 24-25, 26, 27, 28-36, and 40

4.1.2 General Government

Elaboration of non-financial accounts of General Government sector

Non-financial accounts for General Government sector are compiled according to the Commission Regulation 1500/2000, which provides list of main aggregates of the transactions, realized by General Government sector and coded according to ESA'95. The publication contains data not only for General Government sector (S13) as well as for its sub-sectors – Central Government (S1311), Local Government (S1313) and Social Security Funds (S1314).

Data for General Government sector are introduced by three types of tables: ***“Main aggregates of General Government sector”*** in which are presented general government's revenue and expenditure following the structure of institutional sectors and balancing items as well; ***“Taxes and social contributions by sub-sectors of General Government”*** which consists more detail data for taxes and social contributions recorded under the resource side.

Main sources for elaboration of General Government accounts are:

- a) execution of the consolidated state budget and state units' reports;
- b) additional administrative information from Ministry of Finance for taxes on accrual basis according to ESA'95 requirements and recording the transactions on accrual basis;
- c) administrative information from other ministries and agencies for these fees which are considered as taxes.

Government revenues comprise the following ESA' 95 categories, recorded under the resource side of general government accounts:

- P.1 Output
- P.11 Market output
- P.12 Output for own final use
- P.13 Other non-market output

- P.131 Payments for the other non-market output
- P.132 Other non-market output, other
- D.2 Taxes on production and imports
- D.39 Other subsidies on productions
- D.4 Property income
- D.5 Current taxes on income, wealth etc.
- D.7 Other current transfers
- D.9 Capital transfers

Government expenditure comprises the following ESA' 95 categories, recorded under the “Use” side of general government accounts:

- P.2 Intermediate consumption
- P.5 Gross capital formation
- D.1 Compensation of employees
- D.29 Other taxes on production
- D.3 Subsidies, payable
- D.4 Property income, payable
- D.5 Current taxes on income, wealth etc.
- D.7 Other current transfers

D.9 Capital transfers, payable

K.2 Acquisitions less disposals of non-produced non-financial assets

Taxes and social contributions by sub-sectors of General Government

Taxes and social contributions (D) are part of the transactions of the General Government sector that have a redistributive nature. They have been elaborated according to the main methodological principles and requirements of the European System of Accounts (ESA'95). They record the transactions done between the institutional sectors of the national economy and the sub-sectors of General Government.

The General Government sector includes the following sub-sectors in accordance to the ESA'95: Central Government - S.1311 (includes all entities which annual reports are included in the Government Budget, public universities, the Bulgarian National Television, the Bulgarian National Radio, extra-budgetary accounts, hospitals financed by the central government and other institutional entities with separate budgets); Local Government - S.1313 (includes all municipalities, municipal hospitals and municipal extra-budgetary accounts and funds); Social Security Funds - S.1314 (National Social Security Institute and the National Health Insurance Fund)

Taxes and Social contributions are classified in the following main categories: Taxes on production and imports (D.2), Taxes on income and wealth (D.5), Taxes on capital (D.91) and Social security contributions (D.61).

Taxes on production and imports consist of compulsory, unrequited payments, which are levied by General Government or by the institutions of the EU in respect to the production and imports of goods and services, the employment of labour, the ownership or use of land, buildings or other assets used in production. These taxes are payable whether or not profits are made.

Taxes on income and wealth cover all compulsory, unrequited payments, levied periodically by General Government and by the rest of the world on income and wealth of institutional units, and some periodic taxes which are assessed neither on the income nor the wealth.

Taxes on capital include taxes, levied over irregular and rare intervals of time on the value of the assets or net worth - property of the institutional units, or on the value of assets transferred between those units as a result of inheritance, donations or other transfers.

Social security contributions include all obligations of employers, employees, self- and non-employed persons regarding the payment of social contributions to General Government, sub-sector Social Security Funds.

The main sources of information for the elaboration of data for taxes and social contributions by sub-sectors of General Government are: data on VAT income from the National Revenue Agency, data on excises from Customs Agency, Consolidated Fiscal Program execution report from the Ministry of Finance and data on some fees that have the nature of taxes concerning imports of agricultural products, pollution etc. from other ministries and agencies.

The Bulgarian statistics on government expenditure have been used national budget classification by functions, which is closest to the functions (COFOG)

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At this stage Classification of functions of the governments (COFOG) is not put into effect, but is in a process of harmonization in accordance with reporting requirements. The national budget classification of all budget-funded institutions obliged to provide information on expenditure incurred during the year for the environment. Currently, according to this classification–environmental expenditures cannot be distributed in areas (CEPA 2000). To spread the expenditures of environmental domain - air, water, waste and other facilities are used for the total expenditures of the national classification. We studied the regular use of the environment protection expenditure data to calculate the coefficient between the proportions of total expenditure in the sector relative to the different environmental domains. After that we determined the total amounts for the current and capital transactions in EP services. Secondly obtained coefficients were multiplied by the respective indicators in the production Table (Table B) and were received the allocated expenditures by environmental domains in public sector. The total amounts were allocated to the different domains of the CEPA on the basis of the distribution of the expenditure (the budget). This calculation is used for Central and Local government.

Table 7 presents the resulting production table for the environmental protection services produced by the general government for four years – 2004, 2005, 2006, 2007.

**Table 7. The production table for the general government
(MIO national currency BGN)**

	General Government	2004	2005	2006	2007
1.	Current transactions				
1.1	Current uses				
1.1.1	Intermediate consumption	217.68	207.29	256.83	316.24
1.1.2	Compensation of employees	30.42	28.66	33.18	44.54
1.1.3	Consumption of fixed capital	4.84	4.52	5.25	7.12
1.1.4	Other taxes on production	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-
1.2	Output	252.93	240.47	295.26	367.90
1.2.1	Non-environmental output	-	-	-	-
1.2.2	Environmental protection output	252.93	240.47	295.26	367.90
1.2.2.1	Non-market	247.53	239.31	294.63	367.15
1.2.2.2	Market	5.40	1.16	0.64	0.75
1.3	Current environmental protection resources	1495.07	1507.27	1783.05	2236.85
1.3.1	Market output (including partial payments)	5.40	1.16	0.64	0.75
1.3.2	Current transfers	1489.67	1506.11	1782.42	2236.10
2	Capital transfers				
2.1	Gross fixed capital formation	139.34	33.98	111.32	313.96
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a.	n.a.	n.a.	n.a.
2.4	Other capital transfers received	n.a.	n.a.	n.a.	n.a.
3	Financing by producers	-1102.81	-1232.82	-1376.47	-1554.99
4	Labour inputs	n.a.	n.a.	n.a.	n.a.
5	Stock of fixed assets	n.a.	n.a.	n.a.	n.a.

00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

The tables 8, 9 and 10 presents the distribution of data between the different environmental domains for general, central and local government.

Table 8. Table B Production of Environmental Protection Services by the general government (MIO national currency BGN)

2004	General Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.04	132.18	1032.33	84.43	217.68
1.1.2	Compensation of employees	0.01	18.47	144.25	11.80	30.42
1.1.3	Consumption of fixed capital	0.00	2.94	22.93	1.88	4.84
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	0.04	153.59	1199.50	98.10	252.93
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	0.04	153.59	1199.50	98.10	252.93
1.2.2.1	Non-market	0.04	150.31	1173.89	96.00	247.53
1.2.2.2	Market	0.00	3.28	25.61	2.09	5.40
1.3	Current environmental protection resources	0.26	907.87	7090.36	579.86	1495.07
1.3.1	Market output (including partial payments)	0.00	3.28	25.61	2.09	5.40
1.3.2	Current transfers	0.26	904.59	7064.75	577.76	1489.67
2	Capital transfers					
2.1	Gross fixed capital formation	4.16	39.19	77912.70	18.07	139.34
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a.	n.a.	n.a.	n.a.	n.a.
2.4	Other capital transfers received	n.a.	n.a.	n.a.	n.a.	n.a.
3	Financing by producers	3.95	-715.09	72 021.85	-463.69	-1 102.81
4	Labour inputs	n.a.	n.a.	n.a.	n.a.	n.a.
5	Stock of fixed assets	n.a.	n.a.	n.a.	n.a.	n.a.

2005	General Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.02	121.46	4.95	80.86	207.29
1.1.2	Compensation of employees	0.00	16.79	0.68	11.18	28.66
1.1.3	Consumption of fixed capital	0.00	2.65	0.11	1.76	4.52
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	0.02	140.90	5.75	93.81	240.47
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	0.02	140.90	5.75	93.81	240.47
1.2.2.1	Non-market	0.02	140.22	5.72	93.36	239.31
1.2.2.2	Market	0.00	0.68	0.03	0.45	1.16
1.3	Current environmental protection resources	0.13	883.15	36.01	587.98	1507.27
1.3.1	Market output (including partial payments)	0.00	0.68	0.03	0.45	1.16
1.3.2	Current transfers	0.13	882.47	35.98	587.53	1506.11
2	Capital transfers					
2.1	Gross fixed capital formation	0.36	9.98	20.75	2.88	33.98
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a.	n.a.	n.a.	n.a.	n.a.
2.4	Other capital transfers received	n.a.	n.a.	n.a.	n.a.	n.a.
3	Financing by producers	0.26	-732.27	-9.52	-491.29	-1 232.82
4	Labour inputs	n.a.	n.a.	n.a.	n.a.	n.a.
5	Stock of fixed assets	n.a.	n.a.	n.a.	n.a.	n.a.

2006	General Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	na	186.30	1.90	68.63	256.83
1.1.2	Compensation of employees	na	24.07	0.25	8.87	33.18
1.1.3	Consumption of fixed capital	na	3.81	0.04	1.40	5.25
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	na	214.18	2.18	78.90	295.26
1.2.1	Non-environmental output					
1.2.2	Environmental protection output	na	214.18	2.18	78.90	295.26
1.2.2.1	Non-market	na	213.72	2.18	78.73	294.63
1.2.2.2	Market	na	0.46	0.00	0.17	0.64
1.3	Current environmental protection resources	na	1293.41	13.18	476.46	1783.05
1.3.1	Market output (including partial payments)	na	0.46	0.00	0.17	0.64
1.3.2	Current transfers	na	1292.95	13.18	476.29	1782.42
2	Capital transfers					
2.1	Gross fixed capital formation	0.60	17.79	80.75	12.19	111.32
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	0.60	-1061.43	69.75	-385.38	-1 376.47
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

2007	General Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	28.28	158.52	56.26	73.18	316.24
1.1.2	Compensation of employees	3.98	22.33	7.92	10.31	44.54
1.1.3	Consumption of fixed capital	0.64	3.57	1.27	1.65	7.12
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	32.90	184.42	65.45	85.13	367.90
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	32.90	184.42	65.45	85.13	367.90
1.2.2.1	Non-market	32.84	184.04	65.32	84.96	367.15
1.2.2.2	Market	0.07	0.38	0.13	0.17	0.75
1.3	Current environmental protection resources	200.06	1121.25	397.95	517.59	2236.85
1.3.1	Market output (including partial payments)	0.07	0.38	0.13	0.17	0.75
1.3.2	Current transfers	199.99	1120.87	397.82	517.42	2236.10
2	Capital transfers					
2.1	Gross fixed capital formation	58.88	47.52	161.27	46.29	313.96
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a.	n.a.	n.a.	n.a.	n.a.
2.4	Other capital transfers received	n.a.	n.a.	n.a.	n.a.	n.a.
3	Financing by producers	-108.27	-889.31	-171.23	-386.17	-1 554.99
4	Labour inputs	n.a.	n.a.	n.a.	n.a.	n.a.
5	Stock of fixed assets	n.a.	n.a.	n.a.	n.a.	n.a.

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

Table 9. Table B Production of Environmental Protection Services by the central government (MIO national currency BGN)

2004	Central Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.00	5.20	0.04	3.32	8.57
1.1.2	Compensation of employees	0.00	6.79	0.05	4.34	11.18
1.1.3	Consumption of fixed capital	0.00	0.95	0.01	0.61	1.57
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	0.00	12.95	0.10	8.27	21.32
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	0.00	12.95	0.10	8.27	21.32
1.2.2.1	Non-market	0.00	9.67	0.08	6.17	15.92
1.2.2.2	Market	0.00	3.28	0.03	2.09	5.40
1.3	Current environmental protection resources	0.21	752.75	5.88	480.78	1239.63
1.3.1	Market output (including partial payments)	0.00	3.28	0.03	2.09	5.40
1.3.2	Current transfers	0.21	749.47	5.85	478.69	1234.23
2	Capital transfers					
2.1	Gross fixed capital formation	0.86	8.10	16.09	3.73	28.78
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	na.	na.	na.	na.	na.
2.4	Other capital transfers received	na.	na.	na.	na.	na.
3	Financing by producers	0.65	-731.71	10.32	-468.78	-1 189.52
4	Labour inputs	na.	na.	na.	na.	na.
5	Stock of fixed assets	na.	na.	na.	na.	na.

2005	Central Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.00	4.20	0.17	2.80	7.17
1.1.2	Compensation of employees	0.00	6.81	0.28	4.54	11.63
1.1.3	Consumption of fixed capital	0.00	0.95	0.04	0.64	1.63
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	0.00	11.97	0.49	7.97	20.43
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	0.00	11.97	0.49	7.97	20.43
1.2.2.1	Non-market	0.00	11.29	0.46	7.52	19.27
1.2.2.2	Market	0.00	0.68	0.03	0.45	1.16
1.3	Current environmental protection resources	0.10	722.84	29.47	481.25	1233.67
1.3.1	Market output (including partial payments)	0.00	0.68	0.03	0.45	1.16
1.3.2	Current transfers	0.10	722.16	29.45	480.80	1232.52
2	Capital transfers	0.13	3.44	7.15	0.99	11.70
2.1	Gross fixed capital formation	0.13	3.44	7.15	0.99	11.70
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	na.	na.	na.	na.	na.
2.4	Other capital transfers received	na.	na.	na.	na.	na.
3	Financing by producers	0.02	-707.44	-21.84	-472.29	-1 201.54
4	Labour inputs	na.	na.	na.	na.	na.
5	Stock of fixed assets	na.	na.	na.	na.	na.

2006	Central Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	na	7.76	0.08	2.86	10.69
1.1.2	Compensation of employees	na	9.40	0.10	3.46	12.96
1.1.3	Consumption of fixed capital	na	1.32	0.01	0.48	1.81
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	na	18.47	0.19	6.81	25.47
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	na	18.47	0.19	6.81	25.47
1.2.2.1	Non-market	na	18.01	0.18	6.64	24.83
1.2.2.2	Market	na	0.46	0.00	0.17	0.64
1.3	Current environmental protection resources	na	1048.06	10.68	386.08	1444.83
1.3.1	Market output (including partial payments)	na	0.46	0.00	0.17	0.64
1.3.2	Current transfers	na	1047.60	10.68	385.91	1444.19
2	Capital transfers					
2.1	Gross fixed capital formation	0.44	12.98	58.91	8.89	81.22
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	0.44	-1016.61	48.42	-370.39	-1 338.14
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

2007	Central Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.76	4.27	1.52	1.97	8.52
1.1.2	Compensation of employees	1.36	7.62	2.70	3.52	15.20
1.1.3	Consumption of fixed capital	0.19	1.07	0.38	0.49	2.13
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	2.31	12.96	4.60	5.98	25.85
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	2.31	12.96	4.60	5.98	25.85
1.2.2.1	Non-market	2.24	12.58	4.46	5.81	25.10
1.2.2.2	Market	0.07	0.38	0.13	0.17	0.75
1.3	Current environmental protection resources	161.97	907.79	322.19	419.05	1811.01
1.3.1	Market output (including partial payments)	0.07	0.38	0.13	0.17	0.75
1.3.2	Current transfers	161.91	907.41	322.06	418.88	1810.26
2	Capital transfers					
2.1	Gross fixed capital formation	7.06	5.69	19.33	5.55	37.62
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a.	n.a.	n.a.	n.a.	n.a.
2.4	Other capital transfers received	n.a.	n.a.	n.a.	n.a.	n.a.
3	Financing by producers	-152.61	-889.14	-298.27	-407.53	-1 747.54
4	Labour inputs	n.a.	n.a.	n.a.	n.a.	n.a.
5	Stock of fixed assets	n.a.	n.a.	n.a.	n.a.	n.a.

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

Table 10. Table B Production of Environmental Protection Services by the local government (MIO national currency BGN)

2004	Local Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.04	126.98	0.99	81.10	209.11
1.1.2	Compensation of employees	0.00	11.68	0.09	7.46	19.23
1.1.3	Consumption of fixed capital	0.00	1.99	0.02	1.27	3.27
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	0.04	140.64	1.10	89.83	231.61
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	0.04	140.64	1.10	89.83	231.61
1.2.2.1	Non-market	0.04	140.64	1.10	89.83	231.61
1.2.2.2	Market	-	-	-	-	-
1.3	Current environmental protection resources	0.04	155.12	1.21	99.07	255.45
1.3.1	Market output (including partial payments)	-	-	-	-	-
1.3.2	Current transfers	0.04	155.12	1.21	99.07	255.45
2	Capital transfers					
2.1	Gross fixed capital formation	3.30	31.10	61.82	14.34	110.55
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a.	n.a.	n.a.	n.a.	n.a.
2.4	Other capital transfers received	n.a.	n.a.	n.a.	n.a.	n.a.
3	Financing by producers	3.30	16.62	61.70	5.09	86.71
4	Labour inputs	n.a.	n.a.	n.a.	n.a.	n.a.
5	Stock of fixed assets	n.a.	n.a.	n.a.	n.a.	n.a.

2005	Local Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	0.02	117.26	4.78	78.07	200.12
1.1.2	Compensation of employees	0.00	9.98	0.41	6.64	17.03
1.1.3	Consumption of fixed capital	0.00	1.70	0.07	1.13	2.89
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	0.02	128.93	5.26	85.84	220.05
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	0.02	128.93	5.26	85.84	220.05
1.2.2.1	Non-market	0.02	128.93	5.26	85.84	220.05
1.2.2.2	Market	-	-	-	-	-
1.3	Current environmental protection resources	0.02	160.31	6.54	106.73	273.59
1.3.1	Market output (including partial payments)	-	-	-	-	-
1.3.2	Current transfers	0.02	160.31	6.54	106.73	273.59
2	Capital transfers	0.24	6.54	13.60	1.89	22.27
2.1	Gross fixed capital formation	0.24	6.54	13.60	1.89	22.27
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	n.a.	n.a.	n.a.	n.a.	n.a.
2.4	Other capital transfers received	n.a.	n.a.	n.a.	n.a.	n.a.
3	Financing by producers	0.23	-24.83	12.32	-19.00	-31.27
4	Labour inputs	n.a.	n.a.	n.a.	n.a.	n.a.
5.00	Stock of fixed assets	n.a.	n.a.	n.a.	n.a.	n.a.

2006	Local Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	na	178.55	1.82	65.77	246.14
1.1.2	Compensation of employees	na	14.67	0.15	5.40	20.22
1.1.3	Consumption of fixed capital	na	2.49	0.03	0.92	3.44
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	na	195.71	1.99	72.09	269.80
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	na	195.71	1.99	72.09	269.80
1.2.2.1	Non-market	na	195.71	1.99	72.09	269.80
1.2.2.2	Market	na	-	-	-	-
1.3	Current environmental protection resources	na	245.34	2.50	90.38	338.22
1.3.1	Market output (including partial payments)	na	-	-	-	-
1.3.2	Current transfers	na	245.34	2.50	90.38	338.22
2	Capital transfers					
2.1	Gross fixed capital formation	0.16	4.81	21.83	3.30	30.10
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	0.16	-44.83	21.33	-14.99	-38.33
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

2007	Local Government	Air	Waste	Water	Other	Total
1.	Current transactions					
1.1	Current uses					
1.1.1	Intermediate consumption	27.52	154.25	54.75	71.20	307.72
1.1.2	Compensation of employees	2.62	14.71	5.22	6.79	29.34
1.1.3	Consumption of fixed capital	0.45	2.50	0.89	1.15	4.99
1.1.4	Other taxes on production	-	-	-	-	-
1.1.5	Less other subsidies on production	-	-	-	-	-
1.1.6	Net operating surplus	-	-	-	-	-
1.2	Output	30.59	171.46	60.85	79.15	342.05
1.2.1	Non-environmental output	-	-	-	-	-
1.2.2	Environmental protection output	30.59	171.46	60.85	79.15	342.05
1.2.2.1	Non-market	30.59	171.46	60.85	79.15	342.05
1.2.2.2	Market	-	-	-	-	-
1.3	Current environmental protection resources	38.09	213.46	75.76	98.54	425.84
1.3.1	Market output (including partial payments)	-	-	-	-	-
1.3.2	Current transfers	38.09	213.46	75.76	98.54	425.84
2	Capital transfers					
2.1	Gross fixed capital formation	51.83	41.83	141.94	40.74	276.33
2.2	Other capital uses	n.r.	n.r.	n.r.	n.r.	n.r.
2.3	Investment grants received	na	na	na	na	na
2.4	Other capital transfers received	na	na	na	na	na
3	Financing by producers	44.33	-0.17	127.03	21.35	192.55
4	Labour inputs	na	na	na	na	na
5	Stock of fixed assets	na	na	na	na	na

0.00 – less than unit; - not relevant; n.a. - not available; n.r. - not recorded

4.1.3 Households

Consumption is estimated on the basis of statistical surveys concerning household expenditure (e.g. Household budgets' survey). Bulgarian Households budgets' survey (HBS) is a very important data source in NA, particularly in regard to private consumption and personal incomes. The income distribution is estimated basically from data sources on the other sectors that take part in the income distribution of the household sector. It is held every month. HBS results are used widely as a basic source of information on households' incomes, real living standards and GDP final expenditure figures.

HBS sample is a random sample, which is defined at two stages: firstly – selection of population census areas and secondly – selection of households. Institutional households are not presented in the sample. All households participate in the survey for one year. At present the sample covers 3000 households. The households keep regular 15-days household diaries, in which they record:

All monetary daily expenditures on food products, non-foods, services etc.

Households record both monetary and in kind receipts and expenditures for all members of the family. The entries are supposed to include physical quantities as well as values. These diaries are collected in visits by the surveyors occurring at least twice per month.

All households are included in the survey on a voluntary basis. The ones, which refuse to participate in the survey, are substituted by other households corresponding to the same characteristics, concerning the same region, type of area (rural and urban) and household size. Households' expenditures are structured according to COICOP. The consumption expenditures are defined on the basis of COICOP, while the expenditures on taxes, households' own farms, purchases, construction and main repair of dwellings, fines, and personal social insurance etc, which are not defined as consumption expenditures, are listed separately.

The model of HBS sample is self-weighting i.e. all households have identical probability of selection. Weighting for non-response is not done for reducing differences in the response rates of various sections in the sample.

For the purposes of EPEA project Household budgets' survey is used to obtain data about households' final consumption for wastewater treatment and waste collection services.

4.2 Table B1 Supply-uses of characteristic services

Table B1 shows how uses of the environmental services valued at purchasers' prices are allocated to intermediate consumption, final consumption by government and households, capital formation and exports and how the total supply (at purchasers' prices) appears as the sum of output at basic prices, imports, non-deductible value added tax and other taxes less subsidies on products.

Partly data comes from table B - output (in basic prices market output), ancillary output (which is also ancillary intermediate consumption of non-specialized producers) and non-market output (also final consumption).

According to the EU procedure, the calculation of the weighted average rate (WAR calculation) should be based on the National Accounts figures as a starting point. Since the National Accounts framework should be an overall basis of WAR calculations, the detailed balanced SUT with the Use matrix for non-deductible, theoretical VAT is very useful for calculation of the WAR.

The main data sources used for calculating weighted average VAT rate are the National Accounts and detailed Supply and Use tables, prepared by the National Statistical Institute of the Republic of Bulgaria following the methodological principles of ESA'95.

4.3 Table A National expenditure by users

Table A describes the aggregate “national expenditure for environmental protection”. The national expenditure is presented by categories of users of EP goods and services and of EP investments. The table is reusing data produced in Table B and B1 described above.

National Environmental Protection Expenditure is calculated in Table A. The totals about wastewater management domain increase from 249.71.00 Mill BGN for 2004 to 578.43 Mill. BGN for 2007. At waste management the situation exists – in 2004 293.59 Mill. BGN are spent while this sum in 2007 is 399.06 Mill.BGN. Most of the services offered are used as intermediate consumption by non-specialised producers for wastewater management – from 2004 (116.40 Mill.BGN) to 2007 (274.28 Mill.BGN) but for waste management the situation is different – 55.94 Mill.BGN (2004) and 104.51 Mill.BGN (2007). Services purchased by private households are approximately at the same amount - for 2004 and 2007 they are respectively 32.99 and 43.97 Mill BGN for wastewater management. These amounts for waste disposal are 31.12 (2004) and 47.72 Mill BGN (2007) respectively.

**Table 11. Table A National expenditure by users/beneficiaries
(MIO national currency BGN)**

2 004 TOTAL		Producers				Consumers			Rest of the world	Total
		Specialised producers		Other producers		Government as collective consumer		Households as actual consumers		
General government	Other	Non-specialized	Non-characteristic	CG	LG					
1	Consumption of specific products			627.02	10.68	15.92	231.61	64.12		949.34
	Final consumption of characteristic services					15.92	231.61	64.12		311.64
1.1.1	market							64.12		64.12
1.1.2	non-market					15.92	231.61			247.53
	Intermediate consumption of characteristic services			627.02	10.68					637.69
1.2.1	market				10.68					10.68
1.2.2	ancillary			627.02						627.02
	Gross capital formation for characteristic activities									
2	Gross capital formation in specific products	139.34	9.97	51.87						201.18
3	Specific transfers									
4.1	Subsidies on production									
4.2	Other specific transfers									
4.2.1	current									
4.2.2	capital									
5	Total uses of resident units (1+2+3+4)	139.34	9.97	678.89	10.68	15.92	231.61	64.12		1150.52
5.1	current			627.02	10.68	15.92	231.61	64.12		949.34
5.2	capital	139.34	9.97	51.87						201.18
6	Financed by the rest of the world									
6.1	current uses									
6.2	capital uses									
	National Expenditure for environmental protection (5-6)									
7		139.34	9.97	678.89	10.68	15.92	231.61	64.12		1150.52
7.1	current			627.02	10.68	15.92	231.61	64.12		949.34
7.2	capital	139.34	9.97	51.87						201.18

2 005 TOTAL		Producers				Consumers			Rest of the world	Total
		Specialised producers		Other producers		Government as collective consumer		Households as actual consumers		
General government	Other	Non-specialized	Non-characteristic	CG	LG					
1	Consumption of specific products	635.42		4.30	8.66	220.05	68.58	936.99		
	Final consumption of characteristic services				8.66	220.05	68.58	297.28		
1.1.1	market						68.58	68.58		
1.1.2	non-market				8.66	220.05		228.70		
	Intermediate consumption of characteristic services	635.42		4.30				639.71		
1.2.1	market			4.30				4.30		
1.2.2	ancillary	635.42						635.42		
2	Gross capital formation for characteristic activities	40.28	49.21	61.13				150.63		
3	Gross capital formation in specific products									
4	Specific transfers									
4.1	Subsidies on production									
4.2	Other specific transfers									
4.2.1	current									
4.2.2	capital									
5	Total uses of resident units (1+2+3+4)	40.28	49.21	696.55	4.30	8.66	220.05	68.58	1087.62	
5.1	current			635.42	4.30	8.66	220.05	68.58	936.99	
5.2	capital	40.28	49.21	61.13					150.63	
6	Financed by the rest of the world									
6.1	current uses									
6.2	capital uses									
7	National Expenditure for environmental protection (5-6)	40.28	49.21	696.55	4.30	8.66	220.05	68.58	1087.62	
7.1	current			635.42	4.30	8.66	220.05	68.58	936.99	
7.2	capital	40.28	49.21	61.13					150.63	

2 006 TOTAL		Producers				Consumers			Rest of the world	Total
		Specialised producers		Other producers		Government as collective consumer		Households as actual consumers		
		General government	Other	Non- specialized	Non- characteristic	CG	LG			
1	Consumption of specific products	497.46				29.02	24.83	269.80	74.22	895.33
	Final consumption of									
1.1	characteristic services						24.83	269.80	74.22	368.84
1.1.1	market								74.22	74.22
1.1.2	non-market							24.83	269.80	294.63
	Intermediate consumption									
1.2	of characteristic services	497.46				29.02				526.49
1.2.1	market					29.02				29.02
1.2.2	ancillary	497.46								497.46
2	Gross capital formation for characteristic activities	111.32	18.99	33.87						164.18
3	Gross capital formation in specific products									
4	Specific transfers									
4.1	Subsidies on production									
4.2	Other specific transfers									
4.2.1	current									
4.2.2	capital									
5	Total uses of resident units (1+2+3+4)	111.32	18.99	531.33	29.02	24.83	269.80	74.22	1059.51	
5.1	current			497.46	29.02	24.83	269.80	74.22	895.33	
5.2	capital	111.32	18.99	33.87					164.18	
6	Financed by the rest of the world									
6.1	current uses									
6.2	capital uses									
	National Expenditure for environmental protection (5-6)									
7		111.32	18.99	531.33	29.02	24.83	269.80	74.22	1059.51	
7.1	current			497.46	29.02	24.83	269.80	74.22	895.33	
7.2	capital	111.32	18.99	33.87					164.18	

2 007		Producers				Consumers			Rest of the world	Total
		Specialised producers		Other producers		Government as collective consumer		Households as actual consumers		
TOTAL		General government	Other	Non-specialized	Non-characteristic	CG	LG			
1	Consumption of specific products			748.81	39.89	25.10	342.05	91.69		1247.54
	Final consumption of characteristic services					25.10	342.05	91.69		458.84
1.1.1	market							91.69		91.69
1.1.2	non-market					25.10	342.05			367.15
	Intermediate consumption of characteristic services			748.81	39.89					788.70
1.2.1	market				39.89					39.89
1.2.2	ancillary			748.81						748.81
2	Gross capital formation for characteristic activities	313.96	15.63	80.68						410.26
3	Gross capital formation in specific products									
4	Specific transfers									
4.1	Subsidies on production									
4.2	Other specific transfers									
4.2.1	current									
4.2.2	capital									
5	Total uses of resident units (1+2+3+4)	313.96	15.63	829.49	39.89	25.10	342.05	91.69		1657.80
5.1	current			748.81	39.89	25.10	342.05	91.69		1247.54
5.2	capital	313.96	15.63	80.68						410.26
6	Financed by the rest of the world									
6.1	current uses									
6.2	capital uses									
	National Expenditure for environmental protection (5-6)									
7	environmental protection (5-6)	313.96	15.63	829.49	39.89	25.10	342.05	91.69		1657.80
7.1	current			748.81	39.89	25.10	342.05	91.69		1247.54
7.2	capital	313.96	15.63	80.68						410.26

4.4 Table C Financing of national expenditure

The purpose of Table C is to identify the way in which the national expenditure, as stated in Table A is financed by units of the various sectors of the economy. The users/beneficiaries in the heading of the table are the same as in Table A.

The financing table presents on one hand the beneficiaries and on the other hand the financers. These two combined present a complete picture of the giving and receiving. Also not included in the table are the transfers to non-profit organisations (NPISHs) as they are not included in the data on production and the use of EP services.

In the first two columns financing units of gross fixed capital formation in the environment are analysed. They are distributed to Central, Local Governments and specialized producers.

National Expenditure in *wastewater* domain was financed predominantly by the corporate sector. Financing by the enterprises (specialized and non-specialized producers) for the period 2004-2007 varies from 55.1 to 53.2%. For the same period the share of the General government is between 31.7 to 39.2%, and of households – between 13.2 to 7.6% of the total.

The situation in the *waste* domain during the same period is different – financing from enterprises for 2004 and 2007 reaches correspondingly 24.9 % and 30.0%, and that from government – 64.5% and 58.0 %. The share of households is 10.6 (2004) and 12.0% (2007).

V. APPLICATION OF EPEA

The main concept for EPEA substantiate is the one of national expenditure for environmental protection which represents the sum of expenditures paid by resident institutions for environmental protection services acquirement in corresponding reference period.

Depending on specific operations the national expenditure indicators are structured as follows:

- Environmental protection services' uses for the three types of users: producers using services as intermediate consumption; households - as final consumption; and public administration - as collective consumer. The expenditure for final consumption of environmental protection services represents the individual consumption (final consumption of commercial specific services purchased by the population) and collective consumption of public administration. Final consumption of households' specific services is the purchasing of services on the market (example: waste collection, sewage etc.). Collective consumption of specific services for public administration, represents those non-market services of all institutional sectors without determining the value of each service (excl. streets' cleaning, waste collection etc.). Intermediate consumption of environmental protection services for productive units presents the specific services used as it is indicated by the specialized and non-specialized producers.
- Capital expenditures presenting the investment of specialized producers on production of environmental protection services and the part related to the environmental protection from total investment for non-specialized producers.

- Specific transfers, comprising the payments that contribute to financing of environmental protection activities (subventions for the production of specific services given to specialized producers, for services' price-cut, the ones intended to compensate the revenue loss due to environmental protection activities as well as the subsidies for production for non-specialized producers).

The EPEA is an instrument for the follow-up of environmental policy. The main objective is to assess the economic resources for environmental protection. As for national accounts in general, the final aggregate (the national expenditure for environmental protection) is mainly useful for international comparisons. Comparing expenditure and financing, the effective application of the *polluter pay principle* can be assessed.

The EPEA aggregates are closely comparable with national accounts main aggregates so that ratios between EPEA aggregates and national accounts aggregates may be calculated.

We decided to include ratios: national expenditure/GDP; national expenditure/inhabitant, capital expenditure /GFCF, and government expenditure/collective consumption.

The main indicator used for international comparison is the share of national expenditure for environmental protection in Gross Domestic Product. Figure 1 presents the percentage of national expenditure for environmental protection in relation to GDP. During the period under review the share of environmental expenditure and relation to GDP in Bulgaria was predominantly increasing.

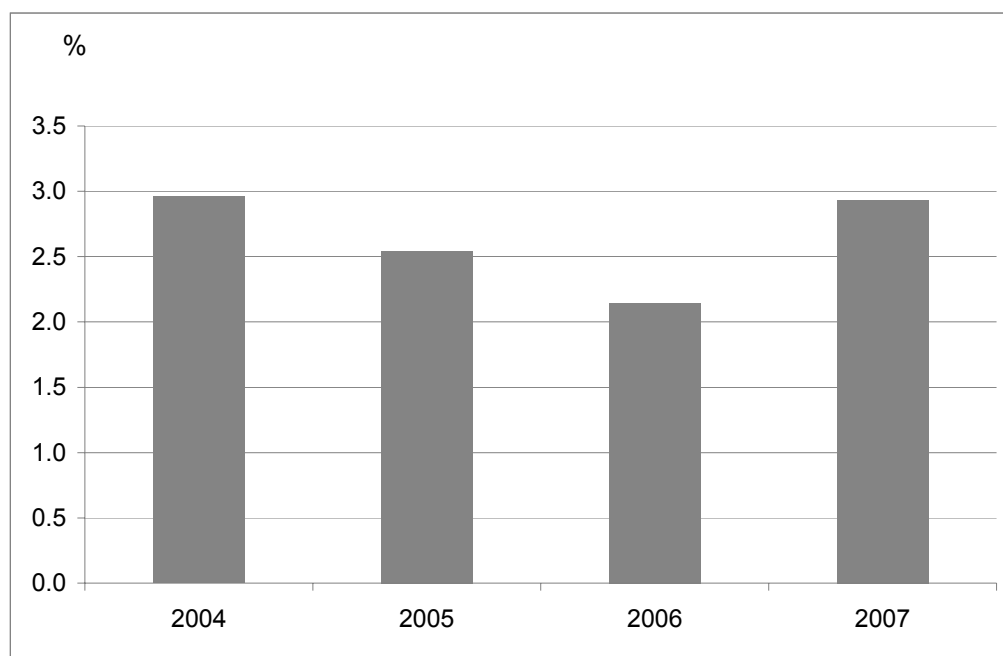


Figure 1. Share of national expenditure for environmental protection (% of GDP)

Figure 2 presents the development of national expenditure per capita.

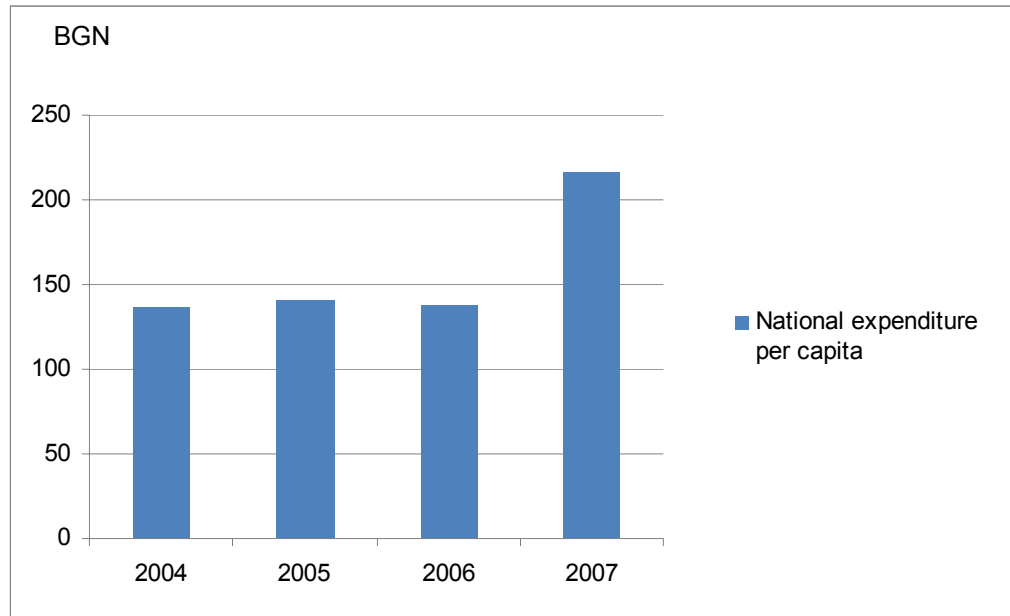


Figure 2. National expenditure per capita in national currency (BGN)

Figure 3 presents the ratio between Capital expenditure and Gross fixed capital formation (GFCF).

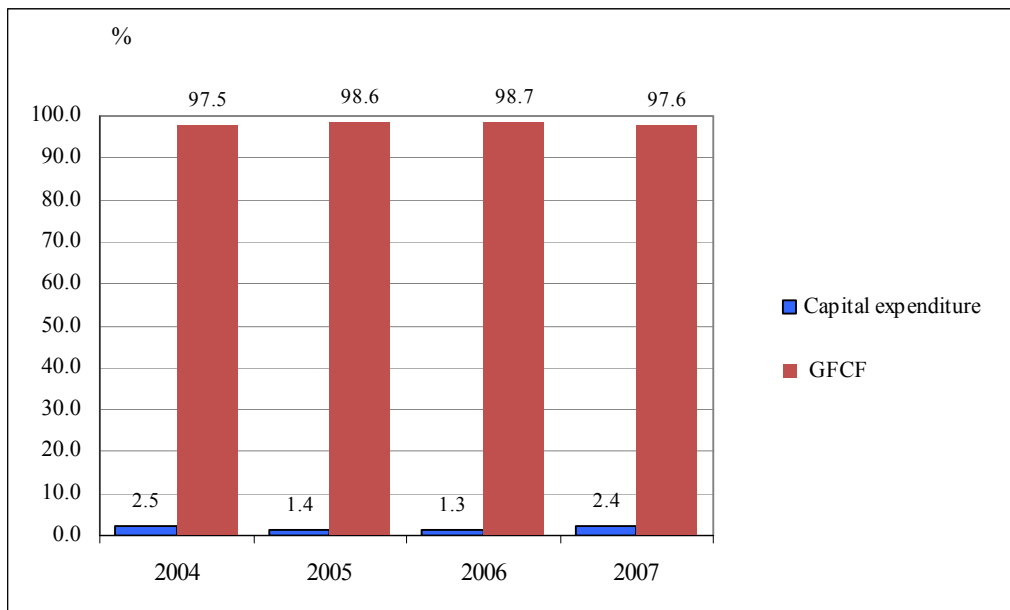


Figure 3 Capital expenditure / GFCF

The Figure 4 below presents the ratio between Government environmental expenditure and Collective consumption.

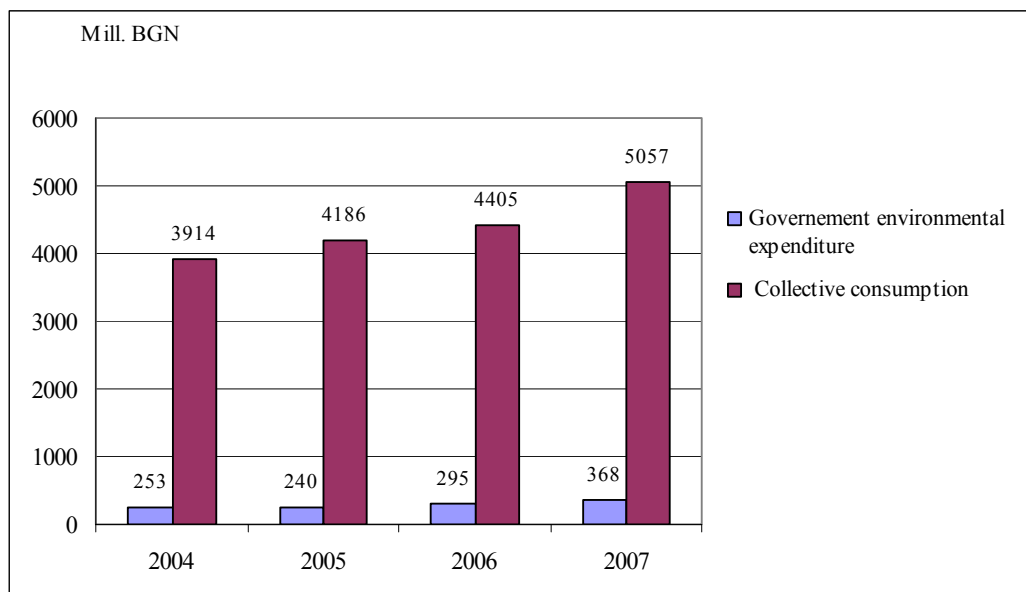


Figure 5 Gouvernement environmental expenditure / collective consumption

VI. PROBLEMATIC AREAS

Up to the present moment we faced serious unsolved problems related to the necessity of adjustment for the purposes of the project:

- Problems related to filling-in the tables aroused as the main economic statistics do not separately identify transactions related to the environment.
- At this stage the Classification of functions of the governments (COFOG) is not put into effect.
- There are difficulties in definition in a practical way of environmental protection undertakings and expenditure.
- Lack of economic statistics including national accounts' data at a detailed level.
- There are problems with the coverage of environmental protection domains and categories of units involved in these activities.
- Adapted and connected products - According to the SERIEE Manual (§ 2026) *adapted products* are defined on one hand as being less pollutant than equivalent normal products, and on the other hand - being more costly than equivalent normal products. No primary statistics on adapted or connected products are available.
- The identification of intermediate consumption of environmental protection services by CEPA is difficult with respect to the specialized producers.
- Lack of split in the national accounts' data between waste (90.02 NACE) and wastewater (90.01 NACE).
- It is difficult to divide consumption of fixed capital and subsidies on production of environmental services.
- Problems with regard to the confidentiality of individual statistical data were ascertained. According to the Law on Statistics in force the principle of confidentiality of individual statistical data is applied. At same time it prevents presenting the information in cases when given aggregation consists of less than 3 units or the share of one of units in the aggregation exceeds 75 % of the whole value.

As a result of the project it was planned to establish data collection system for regular production of environmental protection expenditure accounts but during the project some difficulties were found. The main problem was related to data quality – it was not possible to ensure data quality for all domains (different data sources, different response rates, etc.). Also it was found that compiling the tables was a time-consuming work. Even though in some fields some threats for double counting existed at some positions under-recording was observed. Differences exist between concepts used by national accounts statistics and environment expenditure statistics. Also these tables were found quite complicated for users without special knowledge in SERIEE methodology and data recording principles to understand them.

VII. FURTHER STEPS

The next steps should be followed in order to build a System of statistical surveys for collection of data on environmental protection expenditure: identification of units which have specific environmental protection activities, unit's classification based on the specialization degree, constructing of a corresponding sample base, establishment of a linkage between the identified enterprises and their position in the statistical Register of economic agents.

Main tasks for future are to improve data quality from environmental expenditure survey and to find more administrative data sources that could be used for data cross-checking. Tables will not be compiled annually because of reasons mentioned above, but there is a possibility to be filled-in over a period of several years and to trace out the changes in the economy – how much resources have been spent for environmental protection.

VIII. CONCLUSIONS

Despite difficulties the EPEA tables which were possible to fill-in, brought some interesting results. The production table (Table B) required a thorough investigation of data availability of specialized producers, secondary non-specialized producers and ancillary activities. The National Accounts assisted with most variables needed. This meant that specialized and secondary producers could be well covered in the EPEA tables.

The content of the indicators from the EPEA differ in some manner by the macroeconomic indicators of expenditures, calculated at present in the national accounting. EPEA came further in evidencing the environmental protection expenditure as macroeconomic indicators, especially by describing their use and the financing of environmental protection services.

The investigations done and presented in this report showed the necessity of using as much as possible the information both from the environmental statistical surveys, and national accounts. Based on them an environmental protection expenditure account can be built using the presented method - an account which allows an integrated analysis "*economy-environment*".

The development of detailed EPEA accounts for BG was very important. Although there were missing figures that had to be estimated for completing the accounts, the accounts provide us with a good estimation of national expenditure on environmental protection in the domains of wastewater, waste, air, other environmental protection and for environmental protection activities as a whole.

The lack of data on different environmental domains and the transformation of data collections for the years 2004 – 2007 impeded the compilation the EPEA-table.

The tables took considerable time for compiling. There were so many different data sources to choose from, all with different definitions and content even though they seemed to cover the same issue. The results of the tables, based on the combination of raw data and estimation procedures were a serious challenge for the project team.

One of the main objectives of this project for us in the beginning stage of compilation EPEA tables was to establish a sustainable system that could serve for a long-term assistance in compiling EPEA accounts year by year. Meanwhile it was ascertained that it is still necessary to harmonise and analyse the different methodologies of accounting statistics in Bulgaria. Now, this is very important to find application of this data in practice. An environmental policy and sustainable development need many indicators to assessment and decision-making.

ANNEX I

RECEIVER :	
C	Reporting unit:
O	
M	
P	Address: str, No.
I	
L	Settlement town/ village:
E	
R	District:
	Municipality:
NUMBER OF DEPOSITS	

Form	1] Unified identification Code by BULSTAT:
EE08070	Legal unit:
<p align="center"> STATISTICAL DOCUMENTATION NATIONAL PROGRAMME FOR STATISTICAL SURVEYS SURVEY "INCOME AND EXPENDITURE OF SPECIALIZED PRODUCERS OF GOODS AND SERVICES FOR THE ENVIRONMENT ANNUAL </p> <p align="center">Submitted till: 31.03</p> <p align="center">To the NATIONAL STATISTICAL INSTITUTE</p>	

QUESTIONNAIRE

Income and expenditure of specialized producers of goods and services for the environment

Please indicate the average number of employees under labour and civil service contract - number	
of them: these engaged with environmental activities during the year - number	
Income from by-products - the monetary value of all by-products generated by environmental protection activities. These could either be sold and generate revenues, or be used internally and lead to reduction in costs (thousand Levs)	

INCOME AND EXPENDITURE OF SPECIALIZED PRODUCERS OF GOODS AND SERVICES FOR THE ENVIRONMENT

/THOUSAND LEVS/

	CODE	REPORTED FOR THE YEAR TOTAL	USES FOR THE ENVIRONMENT							
			FOR WATER RESOURCES	FOR AIR PROTECTION	FOR PROTECTION OF SOIL AND UNDERGROUND WATER	FOR PROTECTION OF FORESTS	FOR PROTECTION OF BIODIVERSITY AND NATURAL SCENERY	FOR HUNTING AND FISHING PROJECTS	FOR WASTE TREATMENT	FOR PROTECTION OF NOISE
A	B	K.C=(1+...+7+8)	1	2	3	4	5	6	7	8
TOTAL INCOME (11+18+20+21)	10									
Gross income from sales of services (incl. excises, without VAT) - (13+15+17)	11									
of which: income from households	12									
Income from activity and services related to the environment	13									
of which: services and consulting related to the environment	14									
Other profits and income from activities related to the control and protection of the environment	15									
of which: income from earmarked funds with ecological use received from the state and municipalities (subsidies)	16									
Others related to the activity	17									
Equal value in Levs of foreign income from export of ecological services	18									
of which: income from ecological services submitted to foreign clients	19									
Other subsidies on production	20									
Subsidies on products	21									
TOTAL EXPENDITURE /23+24+30+31/	22									
EXPENDITURE ON ACQUISITION OF TANGIBLE AND INTANGIBLE FIXED ASSETS WITH ECOLOGICAL USE - TOTAL	23									
EXPENDITURE ON MAINTENANCE OF TANGIBLE FIXED ASSETS WITH ECOLOGICAL USE AND ACTIVITIES - TOTAL AND BY ECONOMIC ELEMENTS: /25+26+27+28+29/	24									
For materials	25									
For external services	26									
For salaries, social security and bonuses	27									
For other expenditure	28									
For depreciation	29									
Other taxes on production	30									
Taxes on products	31									
INCOME (TOTAL) - EXPENDITURE (TOTAL) : /10-22/	40									