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### **The Satellite Account of Expenditures on Environmental Protection: Methodological Aspects of Its Introduction in Ukraine**

The article is devoted to methodological aspects addressed in building up the framework for the satellite account of the expenditure on environmental protection in Ukraine. It is argued that any study of the environment need computations and analyses of quantitative indicators based on the statistics data. Problems of statistical accounting are, therefore, the central ones in investigating the expenditure on environmental protection. One of the most urgent tasks is to ensure comparability of data, to enable comparisons of data at all the levels in order to find output key tendencies and patterns in the expenditure on environmental protection, comparisons of figures relating to environmental protection and macroeconomic situation.

The article contains an analysis of the phases of creating the European standard of the system for environmental-economic accounting on the whole and the environmental protection expenditures account in particular. The sources of data for creating the satellite account for the expenditure on environmental protection in Ukraine, and the indicators included in the EU questionnaire designed to collect data on national expenditures on environmental protection are highlighted.

It is demonstrated that data from many sources are used to build the satellite account for the expenditure on environmental protection. It is mentioned that by now Ukraine has not introduced ad hoc surveys of households on the expenditures on environmental protection.

Results of the study show that the main sources of data for computations of the expenditures on environmental protection in Ukraine can be the official statistical observation by type of expenditure, collected by form 1 – environmental expenditure (annual) “Expenditures on environmental protection and environmental payments”, where the expenditure are recorded according to the Classification of Environmental Protection Activities.

The sources of secondary information, i. e. the data from regular official statistical observations and administrative data that are collected with other purposes and reflect selected aspects of expenditure on EP, are recommended for use when developing the methodology.

**Key words:** *system for environmental-economic accounting, expenditure on environmental protection, satellite account, environmental-economic accounts, system of national accounts.*

Introduction. Environmental issues in general and environmental protection (EP) expenditures by EP activity in particular are global problems raising deep concerns of the whole humanity. The topics related with balancing the interests of humanity with the capacities of nature require further scientific

studies. This and other issues of effective nature use can be effectively dealt with through the adequate accounting of overall EP expenditures.

Environmental problems of today pose specific tasks before national statistical bodies, related with elaborating methodological and analytical

framework for creating a system of comparable and reliable data, to construct a system of environmental-economic accounting (SEEA) in Ukraine, including compilation of the Environmental Protection Expenditure account (EPEA).

Expenditures on EP cover all the categories of expenditures by government and enterprises (organizations, institutions), intended to prevent, control, reduce or eliminate environmental pollution, protect the nature and manage nature protection resources.

Elaboration of a methodology for EPEA compilation will help introduce methodology, standards, definitions, classifications and rules of accounting in Ukraine, which are used in compiling this account by EU countries; inform the public reliable, accessible and comprehensible data about the country's expenditures on EP; introduce the regular construction of EPEA in the national statistical practice in conformity with the requirements of Eurostat program [1; 2; 3].

Literature review. Problems relating to ecological-economic accounting are contributed by Ukrainian researchers V. Danylko, A. Yerina, O. Osaulenko, N. Parfentseva and others. It should be noted, however, that the problems specific to SEEA, including ones of expenditures on EP, have not been fully addressed. Elaborating of methods for their solution is supposed to have significant contribution in formulating the national environmental policy, because comparative statistical analyses of the funds by environmental activity, made in the National Accounts System (NA) context, will enable for taking reasonable decisions on environmental policy.

The article's objective is to review historical experiences and methodological aspects of creating EPEA in Ukraine and European Union (EU).

EPEA provides a unique tool for the quantitative assessment of demand and supply specific to EP services. Compilation of EPEA enables for constructing a set of harmonized and internationally comparable indicators required for economic analyses of the results of nature environmental activities at country level, evaluation of the methods for financing expenditures on EP, in order to take sound administrative decisions on environmental strategy building, monitoring and performance assessment of environmental programs.

One of the greatest national and global concerns of today is negative effects of human activities on the environment. On the one hand, environmental effects of economic activities need to be explored at national and international level. On the other hand, it is commonly recognized that rates of economy growth and welfare at global level are conditional on the resources extracted from the natural environment. Questions arise on how the nature wealth can be better exploited. Are mineral resources extracted too

intensively, which does not leave a chance for their rehabilitation? A matter of deep concern is economic activities of enterprises, rising the scopes of dangerous pollutions emitted in the air to the extent when the pollution level exceeds the absorption capacity of the environment, which, in the final end, has negative effects for human health and welfare. These and related issues, being one of the most pressing political-economic concerns for our and future generations, call for urgent solutions in the sustainable development context.

Environmental protection, rational use of nature resources, environmental safety of human life are integral conditions for the sustainable economic and social development of Ukraine. They are in the core of the environmental policy intended to preserve the environment safe for the existence of animate and inanimate nature; protect life and health of the population from negative effects caused by environmental pollution; reach the harmonic interactions between humanity and nature; protect, rationally use and rehabilitate nature resources.

Any studies of environmental issues require computations and analyses of quantitative indicators based on statistical data. It follows that problems of statistical recording are core ones in studying environmental expenditures. An important task is to make the data comparable, to enable for comparisons of data at all the levels, to identify key tendencies, patterns, changes and correlations of indicators, and to take decisions. It should be noted that statistical data originating in different countries can often be incomparable due to methodological gaps in data collection, processing and dissemination.

EPEA is structured according to the classification of environmental activities by type of expenditure: capital investment, including expenditure on capital repair, and current expenditure. But these indicators do not determine the significance and role of the environment in the economic life of a country. This objective can only be achieved by use of value indicators, which methodology and method will be consistent across economic sectors. These indicators lay the basis for EPEA, enabling for detailed analysis of the environment as an economic component of NA.

The central basis of SEEA (2012) is the statistical tools that include a complete set of tables and accounts, which is designed as the guideline in compiling consistent and comparable statistics and indicators as part of the policy setting, analyses and studies in the field of environmental-economic accounting. It is prepared and published under the auspices of UN, European Commission, UN Food and Agricultural Organization, Organization of Economic Cooperation and Development (OECD), International Monetary Fund (IMF) and World Bank [5]. The central basis of SEEA considers for changes in its users' needs, new developments in

environmental-economic accounting and latest methodological achievements.

The agenda for 21 century, adopted by UN Conference on Environment and Development, held in Rio de Janeiro (Brazil) in 1992, contained an address to create a program for elaborating a national system for comprehensive environmental-economic accounting in all the countries. Later on, in 2012, the final document of UN Conference on Sustainable Development (“Pio+20”), held in Rio de Janeiro, confirmed once again the importance of integrated data and information on social, economic and environmental issues for decision-making processes. In response to the political demands articulated by the World Commission on Environment and Development (Brundtland Commission, 1983–1987), the Guidelines on National Accounts was developed: Comprehensive Ecological and Economic Accounting, 1993 (SEEA 1993), which was incorporated in the agenda for 21 century (1992).

In view of the permanent need for collection of environmental and environmental -economic information, the UN Statistical Commission created the Committee of Experts on Environmental-Economic Accounting, consisting of representatives from national statistical bodies and international institutions. The Committee was assigned the task to review SEEA – 2003, in order to formulate a statistical standard for compilation of official statistics. Managerial and coordinating functions in course of SEEA review were performed by the Bureau of the Committee of Experts on Environmental-Economic Accounting, which members were recruited from among Committee members and operated under the authorities delegated by the Committee.

At its 43rd session, the Commission approved the Central Basis of SEEA as a primary international statistical standard for environmental-economic accounting, to be applied by a flexible module approach. The UN Statistical Committee advised all the countries to keep environmental-ecological accounts using the Central Basis of SEEA, to release statistics produced in this way and continue the effort for finding solutions for the other problems in this field, in order to ensure formation of a more comprehensive set of environmental-economic accounts.

The central purpose of environmental-economic accounts is to assess actual expenditures on EP in the structure of overall expenditures that are actually used to prevent degradation or rehabilitate the environment. To implement EPEA completely, additional data are needed, including the one on expenditure sources, scopes and consequences of production and employment, costs of EP activities in various economic sectors. Thus, the demand for services on collecting and purifying drainage waters

calls for investments and intergovernmental transfers, has effects for the employment, etc.

NA in Ukraine is compiled by methodological principles of international NA standards, approved by the Commission of European Communities, IMF, OECD, UN, World Bank, and the European System for National and Regional Accounts – 2010. Environmental activities are treated in NA as a set of consistent and interrelated accounts characterizing transactions related with production of environmental services; creation, distribution and use of the income; accumulation of capital and acquisition of financial instruments.

Institutional resident units are grouped in sectors of non-financial corporations, financial corporations, central government, households, non-profit organizations servicing households, with further detailing by subsector.

Methodological guidelines on compilation of supplementary (satellite) EPEA have been developed in Ukraine [4; 5; 6] as part of the strategy aimed at further improvements in environmental statistics and in conformity to the international standards, in particular EU Directive on European Environmental-Economic Accounts, module EPEA.

EPEA is a part of the Central SEEA System (the system for environmental-economic accounting).

EPEA is created for identification and quantitative assessment of the public response on environmental problems by assessing the demand and supply of EP services and by respective adaptation of “output – consumption” models, designed to prevent degradation of the environment. With this purpose in mind, EPEA contains data on scopes of specialized EP services rendered in all the economic sectors, and on expenditure of resident units on all the goods and services to ensure EP.

Reports about expenditure on EP are based on the NA system and present data about expenditure on EP when performing main, auxiliary and service transactions.

The expenditure on EP is measured by Classifier of Environmental Protection Activities (CEPA), in which nine environmental activities are distinguished (Table 1).

EPEA information can be applied in assessing the scopes of environmental activities, and for evaluating the methods for spending on EP. EPEA can also be useful in computations of the indicators reflecting the change in key areas, such as prevention and reduction of pollution, contributions of environmental activities in the economy, and introduction of the technologies preventing pollution.

The accounting of financial liabilities in EP will help assess the impact of overall expenditures in this field on the national economy competitiveness with consideration given to the liability principle.

Classifier of Environmental Protection Activities and Expenditures (CEPA 2000)

Number	Purpose of nature protection activities
1	Protection of the air and problems of climate change
2	Purification of drainage waters
3	Treatment of waste
4	Protection and rehabilitation of soils, underground and surface waters
5	Reduction of noise and vibration effects (with exception of measures for labor protection)
6	Preservation of biodiversity and habitat
7	Radiation safety (with exception of measures to prevent accidents and catastrophes)
8	Research in the field of nature protection
9	Other purposes of nature protection activities

Bearing in mind the significant complexity of EP issues, the indicators in EPEA table cannot be produced unless the data from many sources is available. Ukraine has not introduced by far ad hoc surveys of households about expenditure on EP. Therefore, at this phase of methodology development, the main sources of data for computing indicators of expenditure on EP are the sources of secondary information, i. e. the data from regular official statistical observations (OSO) and administrative data that are collected with other purposes and reflect selected aspects of expenditure on EP.

The main data sources used in Ukraine for computations of expenditures on EP are as follows:

- 1) NA data about economic indicators of specialized producers of environmental services (E 36–39, Table 2);
- 2) data from “input-output” tables on specialized producers of environmental services (E36–39);
- 3) results of OSO by form 1 – environmental expenditures “Report about expenditure on environmental protection”;
- 4) results of OSO by form 1 (monthly) “Report about labor” in part of employee compensations and numbers of worked person / hours;

5) results of OSO by form 1 – debt (housing and utilities sector) “Report on payment for housing and utility services and electricity by the population”;

6) results of OSO by form 2 – investment (annual) “Report about capital investment, disposal and depreciation of assets”;

7) results of OSO by form 9 – foreign economic activities (annual) “Report on exports (imports) of services”;

8) annual report on execution of public budget;

9) annual reports on execution of local budgets;

10) results of other OSO, informing expenditure on EP, existence and specifics of expenditures on housing and utility services;

11) administrative data on expenditure on EP, freely available from the Ministry of Ecology and Nature Resource of Ukraine, the State Service of Ukraine on Geology, Cartography and Cadastre, the State Ecological Inspection and other public administration bodies.

Results of our analysis show that the main sources of data for computing expenditure on EP in Ukraine can be data from OSO by type of expenditure, collected by form 1 – environmental expenditures (annual) “Expenditures on environmental protection and environmental payments”, where the expenditure is shown according to the Classification

Table 2

Economic Activities of Specialized Producers (E36–39)

Section code	Title and coverage of activities
<b>Section E. Water supply; sewage, waste treatment</b> This section covers treatment (including collection, processing and disposal) of any wastes, such as solid or non-solid wastes and household wastes, and clearing of contaminated sites. Results of waste and drainage water treatment can be their disposal or use as inputs for other production processes. Activities related with water supply are also included in this section.	
36	<b>Withdrawal, purification and supply of water.</b> The section covers withdrawal, purification and distribution of water for household and production purposes. This section also includes withdrawal of water from various sources and its distribution by any method.
37	<b>Sewage, disposal and purification of wastewater</b>
38	<b>Collection, processing and removal of wastes; recycling of materials.</b> The section covers collection, processing and removal of wastes. It also includes local transportations of wastes and exploitations of means for utilization of wastes (that is, production of sorted renewable materials from wastes).
39	<b>Other activities on waste treatment.</b> This section covers services on rehabilitation, that is, purification of contaminated premises and sites, soils, surface and underground waters.

of Environmental Protection Activities (CEPA) (see Table 1). This form covers business entities – legal entities in all the economic activities irrespective of size, organizational and legal form of management and institutional sector, which make payments on EP.

OSO by form 1 – environmental expenditures is performed on incomplete basis (survey of the main body of the population) with annual periodicity; it produces the following statistical data [7; 8]:

- expenditure on EP, characterizing the structure of expenditure by the classification of environmental protection activities (see Table 1), by type of expenditure:

- capital investment, including expenditure on capital repair;
- current expenditure;

- expenditure on EP by source of expenditure, data on actual expenditure on capital investment, including capital repair, and current expenditure by environmental activity and source of financing:

- (i) funds of public budget (of these, money of the Government Fund of Environmental Protection);
- (ii) funds of local budgets (of these, money of local funds of environmental protection);
- (iii) own funds of enterprises and organizations;
- (iv) other sources of financing;

- environmental payment, reflecting environmental taxes:

- for air emissions of pollutants by stationary and mobile sources;
- for dropping of pollutants into water objects;
- for disposal of wastes in specially designated sites or objects, except for disposals of specific types of wastes as recyclable materials, and fines for violations of the law on EP, compensations of losses resulting from the damage caused;

- information about other expenditures and revenues, including data on revenues for rendered EP services, funds from sales of wastes and by-side products received when performing environmental activities; payment for EP services.

It follows that official statistical bodies performing this OSO obtain data about expenditures on investment in fixed assets, meant for construction and reconstruction of nature protection objects, acquisitions of equipment to perform environmental actions; about expenditures on capital repair of nature protection facilities; current expenditures on environmental activities; environmental tax; and expenditures on environmental services.

The expenditure on EP covers all the types of expenditures designed to prevent, reduce or liquidate pollutions, other types of harmful environmental

effects from industrial and other activities, and to preserve biodiversity and habitat. Purposes of expenditures like resource and energy saving are accounted only when EP (such as recycling of wastes) is emphasized.

For classifying the types of economic activities at country level, the International Standard Industrial Classification of All Economic Activities, Revision 4 (ISIC, Rev.4) and its European option NACE are recommended. In Ukraine, the Classification of Economic Activities from 2010 (CEA – 2010), harmonized with NACE, is used. The typical activities from environmental-economic accounting are for the first time presented in CEA – 2010 in sector E, sections (36–39) (see Table 2).

As demonstrated by our study, the main purpose of environmental-economic accounts is to show actual expenditure on EP in the structure of overall expenditure, which is actually used to prevent degradation of the environmental or rehabilitate it. These expenditures are given by economic sector and environmental activity.

From the NA perspective, expenditure on EP include:

- (i) internal uses of products (goods and services) for EP purposes, which are essentially either the EP services (e. g., the ones on collecting and purifying drainage water or waste) or the related or adapted products (e. g., catalytic transformers, lead gasoline etc.). The uses are final consumption (formation of fixed capital) or intermediate consumption. The expenditure on EP also includes the value of respective services used internally to reduce environmental effects;

- (ii) gross accumulation of fixed capital for EP (investment in EP);

- (iii) other expenditures not included in the previous categories. These can be subsidies to reduce the expenditures of users on EP. If these subsidies are ignored, the overall expenditure on EP activities will be underestimated.

The totals of the above components make up the internal expenditure on EP; the total domestic expenditures on EP are derived by adding the expenditures on EP, directed outside the national boundaries, and deducting the expenditures by external residents, incoming to the country. This method of computation, preventing from double counting of the expenditure on environmental activities, enables for comparisons of the expenditure on EP with macroeconomic indicators of gross domestic products or gross national product.

So, EPEA lays the basis for computations of the scopes of economic resources allocated in EP. But there exists a pressing problem of access to primary data about the expenditures made by all the entities. The environmental activities do not necessarily entail actual spending of funds. Thus, the legally fixed

limitations on certain types of productions, intended to reduce the level of environmental degradation, do not have a monetary equivalent, and they are not fixed in NA, except for the cases when expenditures are made to compensate the losses of economic benefits, caused by the above mentioned limitations.

Also, positive environmental effects can be caused by actions of physical persons or legal entities, which are not related with EP. Acquisition or installation of new production equipment only for productivity enhancement or cost reduction may increase the input of energy and materials, but this equipment will emit lesser scopes of dangerous substances into the environment, than the previous one. As a result, the expenditures on purchase and installation of new production equipment will not be included to the expenditure on EP.

However, the purpose of environmental activities accounting is not confined to measurement of the scopes of economic resources used for EP. Measurement of the effectiveness of EP expenditures by assessing environmental-economic effects of productions exploiting these resources, employment, exports, and competitiveness of respondents is also important.

A set of integrated tables on supply of resources, use and financing of expenditures on EP is based on the principles of national accounting, to allow for the comprehensive analyses of the expenditure on EP and the results of respondents' operation. NA is a systemic method for recording of economic transactions taking place in the economy. Due to the double accounting approach, all the flows are recorded twice: as inputs and as uses.

EPEA lay the basis for consistent integration of all the available core data on expenditures on EP. They correlate uses of goods and services with their supply in keeping with the model of NA tables of supply. With reference to NA, the expenditure on EP is derived using NA principles, rules and classifications. This includes evaluation of the concept, identification of transactions and aggregates used in NA. Therefore, tables of expenditure on EP are related with analogous NA categories. When NA data are detailed by section E, they are applicable for the assessment of the expenditure on EP. For example, primary data on expenditure on EP from public budget funds often cover the expenditures related with production and supply (e. g. salaries or revenues from sales of environmental protection services), uses (e. g. purchase of EP services) and financing (e. g. provided investment grants). These different categories have to be included in the respective tables of EPEA (i. e. supply, uses and financing).

Integration of the expenditure on EP to the environmental-economic accounting is focused on the expenditures intended for EP, i. e. on a specific category of relations between the environment and

the economy. This is an integral part of a broader environmental and economic character of the accounting basis. Because this basis determines NA principles, they begin with identification of transactions related with EP.

The abovementioned, including the description of expenditure on EP recorded in EPEA, allows for evaluating the principle "polluter pays". It should be noted that the overall financing of the above purpose can be determined by analyzing the expenditures of public and local budgets, financial reports of non-government entities (funds etc.). It should be mentioned that in some cases compensation transfers (e.g. to farmers) and special transfers may be the only way to measure the expenditures on environmental activities.

Our study shows that the total expenditure on EP can be more effectively computed and analyzed by means of a special questionnaire on EP expenditures, which format is approved by the statistical service of EU. This questionnaire includes the following types of data [9; 10]:

- data obligatory for filling (obligatory module according to the EU Regulation No 691/2011);
- data (if available), supplied on voluntary basis (supplementary module);

The nomenclature of obligatory data includes:

- output of EP services;
- market output of EP services;
- non-market output of EP services or supplementary output of EP services;
- imports and exports of EP services;
- value added tax and other taxes minus subsidies for EP services;
- gross accumulation of fixed capital and acquisition, minus non-financial non-production assets for provision of EP services;
- paid and received payments for EP services;
- final consumption of EP services by public administration bodies and households;
- intermediate consumption of EP services by specialized producers.

The nomenclature of data supplied on voluntary basis includes:

- intermediate consumption (for the output of EP services), which corresponds to the value of products that are consumed as expenditures in the process of EP services production. Products that are consumed may be EP services or other types of products;
- intermediate consumption of EP services (for the output of EP services), which corresponds to the value of EP services that are consumed as inputs in the process of EP services production;
- intermediate consumption (intermediate consumption, including EP services), which corresponds to the value of products distinct from EP

services that are consumed as inputs in the process of EP services production;

- salaries of employees: overall compensations to employees engaged in production of EP services (they include salaries and social deductions by employers);

- internal current expenditure: the sum of employee compensations and intermediate consumption excluding EP services;

- consumption of fixed capital: the variable corresponds to the depreciated value of fixed assets employed in production of EP services;

- net profit: the sum of output of EP services, related with non-productive production of intermediate consumption, employee compensation, net taxes on production and consumption of fixed capital;

- employment (full-time equivalent), which corresponds to the full-time employment of employees engaged in the production of EP services. The employment is measured as the number of jobs with

full employment; the latter is derived as the overall number of working ours divided by the number of average annual hours of work;

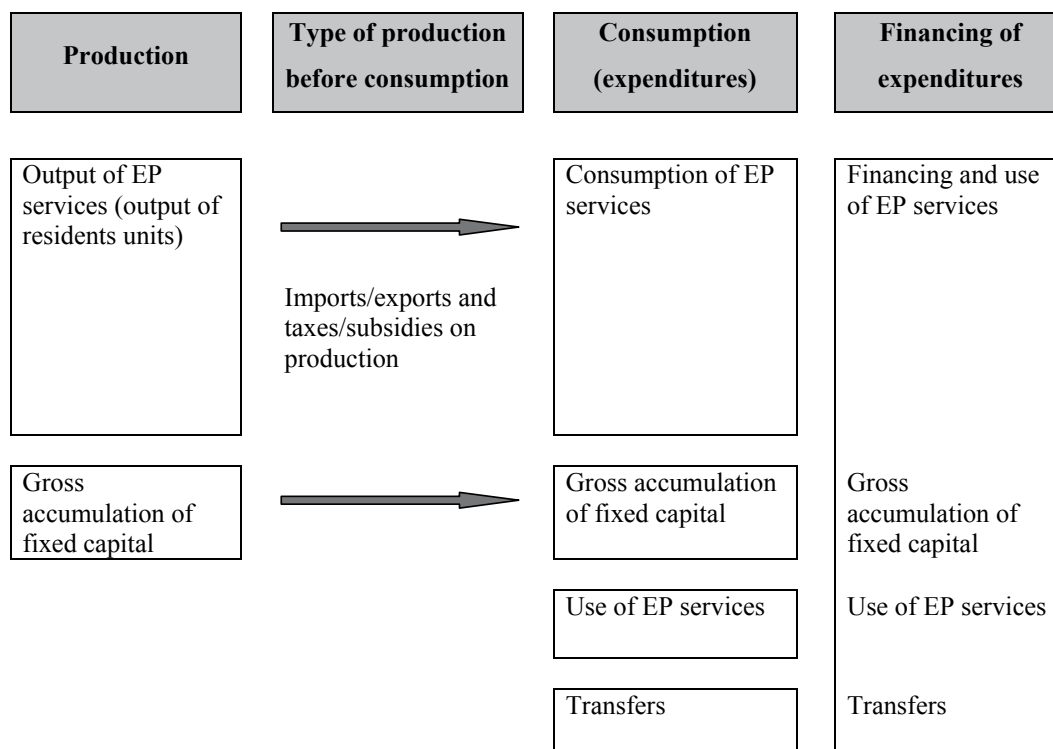
- investment expenditure by EP activity: investment expenditure on collection and removal of pollutants (e. g., air emissions, drained waters or solid wastes) after their generation; prevention of dissemination of pollutants and measurement of their scopes; processing and utilization of pollutants generated by the operational activities of an enterprise;

- investment expenditure by net fixed EP assets; investment expenditures leading to a modified or adapted production process. They are made to prevent or reduce the scopes of pollutants;

- environmental taxes (e. g., taxes on pollution), spent on EP financing, except for overall environmental or green taxes (e. g., taxes on energy), used to finance EP activities.

- market output of EP services (main activity): this variable corresponds to the value of IP services

*EPEA structure*



produced by specialized producers in the sector of non-financial corporations, i. e. enterprises producing EP services as the main activity;

- market output of EP services; this variable corresponds to the value of EP services produced by the producers for whom EP services is not the main activity;

- intermediate consumption of EP services (for the output of EP services and for other products) is consumption of EP services that are consumed as

expenditures for production of EP services and for other production.

The data in the questionnaire for EP expenditure are given by institutional sector of the economy: government; non-financial corporations (specialized producers, E 36–39); non-financial corporations (non-specialized producers); households and rest of the world; non-profit organizations servicing households. The sector of corporations is divided between corporations as main producers of EP

services and producers of EP services as an auxiliary activity, and other corporations, including corporations as producers of the auxiliary output of EP services; production activities of households are included in the corporations as market producers. The data are given for various sectors of EP according to the Classification of Environmental Protection Activities (CEPA) (see Table 1).

It should be emphasized that the obligatory part of the questionnaire limits collection of data to some types of EP activities (CEPA 2, 3 6).

Conclusions and prospects of future studies in the field. The study demonstrates that the statistical recording of EP expenditures requires further

elaborations. The core areas of further studies of the problems related with environmental-economic accounting are as follows:

- 1) find alternative options for main sources of data on EP expenditures;
- 2) investigate the capabilities of the existing OSO;
- 3) scrutinize the legal framework of SEEA;
- 4) investigate the distribution of EP expenditure by CEPA.

Results of the above studies are supposed to enhance the reliability of recording of the data on EP expenditures.

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### **Сателітний рахунок витрат на охорону навколишнього природного середовища: методологічні аспекти запровадження в Україні**

Статтю присвячено методологічним аспектам розробки засад побудови сателітного рахунку витрат на охорону навколишнього природного середовища в Україні. Зазначено що, будь-які дослідження навколишнього природного середовища потребують розрахунку й аналізу кількісних показників, в основі яких лежать статистичні дані. Тому проблеми статистичного обліку є одними з основних у вивченні витрат на охорону навколишнього природного середовища. Постає завдання забезпечення порівнянності даних, що уможливить зіставлення інформації на всіх рівнях з метою виявлення основних тенденцій, закономірностей розвитку та змін, що відбуваються, оцінки співвідношення показників та прийняття рішень

У статті проаналізовано етапи створення європейського стандарту щодо Системи еколого-економічного обліку загалом та рахунку витрат на охорону навколишнього природного середовища зокрема. Наведено джерела даних для створення сателітного рахунку витрат на охорону навколишнього природного середовища в Україні та висвітлено показники, які містяться в Анкеті Євростата для повного та достовірного відображення зазначених національних витрат.

Для побудови національного сателітного рахунку витрат на охорону навколишнього природного середовища використовується інформація з багатьох джерел. Зазначено, що наразі в Україні не існує спеціальних обстежень домогосподарств щодо цих витрат. За результатами проведеного дослідження встановлено, що за основні джерела даних для визначення показників витрат на охорону навколишнього природного середовища в Україні наразі можуть бути використані дані державних статистичних спостережень за видами витрат, що збираються за формою № 1-екологічні витрати (річна) "Витрати на охорону навколишнього природного середовища та екологічні платежі", де витрати відображені згідно з класифікацією природоохоронних заходів СЕРА. Тому при розробці методології рекомендовано використовувати джерела вторинної інформації – дані регулярних державних статистичних спостережень та адміністративні дані, що збираються з іншими цілями або характеризують окремі аспекти витрат на охорону навколишнього природного середовища.

**Ключові слова:** система еколого-економічного обліку, витрати на охорону навколишнього природного середовища, сателітний (допоміжний) рахунок, еколого-економічні рахунки, система національних рахунків.

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