

# THE DEVELOPMENT PERSPECTIVES OF SUSTAINABILITY ACCOUNTING AND INTEGRATED REPORTING IN UKRAINE

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**Abstract:** The transition from traditional accounting to Sustainability Accounting is justified in the extended annotation. The Guidelines for the preparation of the Management Report regulated by the Ministry of Finance of Ukraine and recommendations of international integrated reporting standards were compared. It is proved that the preparation of integrated reporting should be the prerogative of not only large and medium-sized enterprises but also at least small enterprises as well. A methodology was developed and an assessment was made of the sustainable development of agriculture in Ukraine.

## I. INTRODUCTION

The escalated issues of researching and developing new methodological approaches to organizing a special type of accounting within financial, managerial, social and environmental accounting are based on existing relevant options for generalizing theory and practice analysis in the scope of creating conventional accounting and analytical support for corporate social and environmental reporting, managing social and environmental activities. However, there is a need to determine its place in the system of accounting types, to investigate and project conception engineering targeted changes in the structure of reporting and controlling in case of forming accounting and analytical support.

Today there are no substantial and impactful systematical investigations for the purpose definition of the environmental and social accounting complex role in sustainable development ensuring of business entities and themselves integrated reporting in Ukraine. The system of environmental and social accounting has not yet fully comprehended and logically completed as full-scale methodology for Sustainability Accounting in the accounting and economic theory and practice of Ukraine. The Integrated Reporting needs in methodology expansion and legal regulation or standardization.

## II. SUSTAINABILITY ACCOUNTING

There is an undeniable connection and constant interaction of three systems of sustainable development: economy, environment and society, which can be compared with traditional types of business accountings: accounting, environmental and social. The objects of these accounts are the corresponding capitals. The World Commission on Environment and Development regulates that balanced development takes into account the total assets is constant or increases over time. This assets consist of: industrial capital (cars, factories, roads), human capital (human health, knowledge and skills) and environmental capital (forests, air, water and soil quality).

A country must consume such an amount of assets, that will not reduce the aggregate potential reserves [1].

But, in our opinion, the main capital assets for sustainable development accounting are entrepreneurial, financial, human, social and environmental, the further clear definition of which requires careful study.

Thus, the results of the activities of five capitals (entrepreneurial, financial, human, social and environmental) can be correlated and generalized to three types of accounting, respectively, and embody the general system of economic accounting for the sustainable development of the enterprise (Fig. 1).

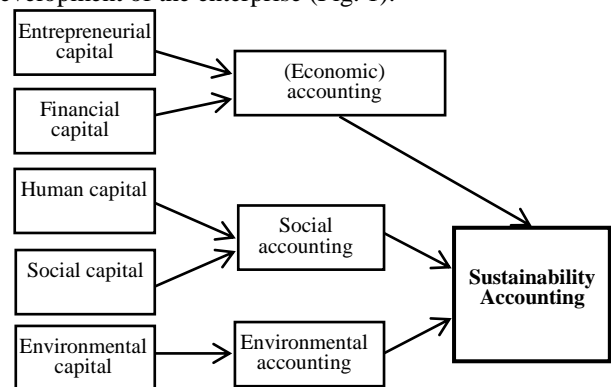


FIGURE 1: THE INFORMATION FORMATION FOR SUSTAINABILITY ACCOUNTING

\* SOURCE: COMPILED BY THE AUTHORS

All information coming from five types of capital should be sorted by type of accounting using methods in accordance with their functionality to generate reliable and unbiased information for external and internal users. The proposed distribution of information, the purpose of which is to minimize the receipt of incorrect or distorted data, requires clear regulation.

The innovation management literature provides diverse

views regarding the concept of Sustainability Accounting. Typically, traditional accounting and Sustainability Accounting are recognized by two different categories of “sub-accounting”. But this is not an obstacle to their integration, since information from both categories of accounting can be combined using a separate analysis of eco-efficiency indicators for use by internal and external users. External and internal Sustainability Accountings are combined using eco-efficiency indicators that require the integration of these two systems [2, p. 8].

Traditional accounting systems and differentiated systems of environmentally and socially sustainable development accounting process information caused by environmental and social problems and they can be combined into corporate sustainable development accounting [3, p. 201]. The definition of Sustainability Accounting is a type of accounting that addresses:

- activity and its variations;
- registration, analysis of operations and reporting
- environmentally determined financial implications and environmental implications of a particular economic system [4, p. 25].

The concept of generating Sustainability Accounting information is suspected to establish that such accounting, unlike the traditional financial accounting system, generates financial flows and stocks in the form of financial statements and profitability, additionally provides the opportunity to receive information that can be considered in three different dimensions:

1. Information generation time - in this dimension information can be provided on a certain date about the status of assets and liabilities, or during a certain period of time, for example, their movement over a certain period;

2. Place of information formation – which information is included in the financial statements (internal and / or external)

3. Information belonging - information influences the formation of economic, social or environmental outcomes, broken down by five types of capital.

The traditional accounting system does not take into account not only the social and environmental aspects of the formation of the overall sustainable development accounting system, but also the factors of the external impact of information. To eliminate these shortcomings, the author proposed the concept of the transition from the traditional accounting system to sustainability accounting in Ukraine.

The aforementioned transition concept requires reconfiguration and adaptation, provides for the implementation of the following measures:

1. Financial statement transformation (statement of comprehensive income), which will require additional information about the costs and benefits associated with economic, social and environmental activities.

2. The extension of the standard classification by groups of income and expenses (profit and loss) to cover external losses and benefits for the environment, society

and the economy which is not taken into account by traditional accounting.

3. The expansion of the balance sheet (statement of financial condition), taking into account the whole range of assets, including intangible assets, such as brand value, human capital or reputation in relation to permanence, and hidden obligations, including these, are associated with risks sustainability.

4. Implementing Integrated Reporting.

### III. INTEGRATED REPORTING AND STANDARDIZATION

While many innovation approaches to environmental management accounting and sustainability reporting (such as the GRI guidelines; [5]) tend to focus on goals of individual organizations such as increasing energy efficiency or securing legitimacy, sustainability accounting would have to envisage much more overarching purposes and aims, such as how the organization contributes to how global economic and social activities stay in the safe operating space of planetary boundaries [6]-[7] or to achieving the UN Sustainable Development Goals (SDGs) [8].

According to changes in the legislation of Ukraine since 2018, large and medium-sized enterprises must create a “Management Report”, or “a document containing financial and non-financial information that characterizes the state and prospects of the enterprise and discloses the main risks and uncertainties of its activity” [9]. That is, this document can actually replace the financial statements, as it already has financial indicators. In addition, based on the definition, it can be assumed that the new annual financial statements will not be a simple “dry” statement of the digital values of the enterprise. This document is universal both for the issuer of the report and for each stakeholder.

Among researchers and legislators of integrated reporting and its other interpretations, a key topic is considered, which is still relevant in many countries: solving confusion regarding the goals and direction of audit of these reports. The International Auditing and Assurance Standards Board (IAASB) is working hard to develop guidelines for its ten key objectives to ensure energy efficiency by gathering knowledge that already exists among the few who know how to resolve these issues. However, legislative and regulatory changes will also be required to ensure progress, as well as some enterprising business leaders who are ready to develop and issue a guaranteed integrated report for the first time. A business should start a trend to define the content itself, reports should reflect the business, its business model and strategy, and thus be different from each other. We agree that the standardization of the Management Report will determine its content, but to a large extent the taken blinkers will deprive enterprises of their uniqueness, which we now have in the annual reports of financial statements.

When comparing the Guidelines for the preparation of the Management Report prepared by the Ministry of

Finance of Ukraine [10] and recommendations of international integrated reporting standards, we can conclude that the requirements for the main sections of the reports are identical (Table 1).

However, the main difference, in addition to established indicators or mandatory regulated sections, is the organization of internal and external quality control of the report. This point is still controversial and most controversial. Especially when it comes to non-financial indicators, such as corporate culture or interaction with the external environment in social and environmental interaction.

TABLE 1: GUIDELINES FOR THE PREPARATION OF A MANAGEMENT REPORT BY THE MINISTRY OF FINANCE OF UKRAINE AND INTERNATIONAL INTEGRATED REPORTING STANDARDS\*

No.	Recommendations on the content and procedure for compiling a Management Report. Methodology Recommendation No. 982 of the Ministry of Finance	International standards for integrated reporting (GRI, AA 1000, Global Compact)
1	Organizational structure and description of the enterprise	Top management statement to stakeholders
2	Results of activity	Company characteristics Integrated report options Financial performance (financial statements and interpretation)
3	Liquidity and Liabilities	Liquidity and Liabilities
4	Environmental aspects	Characteristics of environmental activities
5	Social aspects and personnel policy	Indicators of social activity and social responsibility
6	Risks	Risks and opportunities
7	Research and innovation	Corporate governance, commitment and stakeholder engagement
8	Financial investments	
9	Development prospects	Other significant issues of activity
10		Organization of internal and external quality control of the report

\* SOURCE: [10], [11]

Countries of the world in which official regulation took place much earlier and the process of forming the rules and conditions for the preparation and publication of integrated reports was completed now have the corresponding result of the trend propagation and the need for the publication of integrated reports (Table 2).

TABLE 2: THE NUMBER OF ENTERPRISES FORMING INTEGRATED REPORTING IN THE WORLD FOR 2019 ACCORDING TO THE GRI G4 AND G3 STANDARD, UNITS

No	Country	Enterprises that form integrated reporting, units			
		Total	Including		
			Big	Medium	Small
1	Ukraine	22	22	-	-
2	USA	1165	571	453	135
3	Germany	449	237	110	89
4	Australia	358	187	101	66
5	France	277	99	145	31
6	Austria	236	102	24	109
7	Russia	160	120	19	21
8	Poland	140	101	18	19
9	Czech Republic	52	24	21	6
	.....				
	<b>In the world</b>	<b>14012</b>	<b>7950</b>	<b>3239</b>	<b>2665</b>

SOURCE: [12]

Of course, the data in Table 2 show that Ukraine is at the initial stage of forming its policy and practice of restructuring accounting for integrated reporting requirements.

Only 5% of Ukrainian enterprises will form and submit a Management Report. Moreover, only a small part and it will be only large enterprises with a book value of assets from 20 million Euros, net income from sales from 40 million Euros and an average number of employees from 250 people.

Of course, large enterprises not only have the financial ability to ensure the reporting process, which is now valuable, but also can show “something”. However, the main problem is the lack of standardization. Large enterprises are the largest objects of environmental pollution. Therefore, the variability of the indicators of the Management Report is allowed to hide the abuse and uncontrolled emissions of pollutants.

The prospect of developing non-financial or integrated reporting is to standardize the Management Report. This standardization should have the limits of permitted formats for individual industries or types of industries. If it is metallurgy, then the mandatory indicators are not only pollution, but reduction indicators. So, standardization of sustainability reporting is inevitable. Moreover, this standardization should influence the rethinking and motivation of medium and small enterprises to the same fate. In the future, they will also be obligated to generate Management Reports or extended financial statements with indicators of social and environmental activities.

It is the further development of integrated reporting that depends on the regulatory framework and accounting and analytical support that should be regulated by several levels of regulation (Fig. 2).

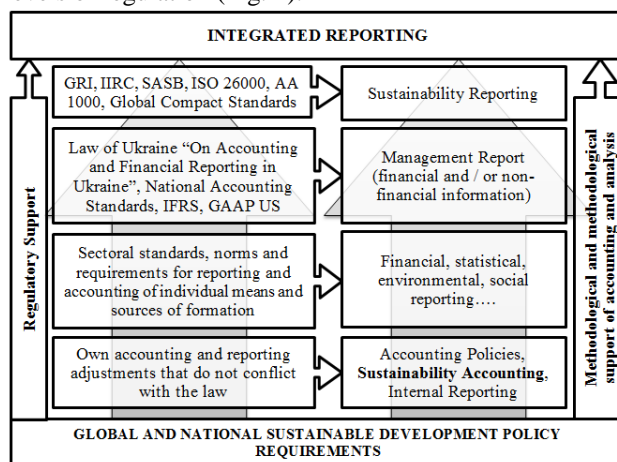


FIGURE 2: TRANSFORMATION OF SUSTAINABILITY REPORTING UNDER THE PRESSURE OF INTERNATIONAL AND UKRAINIAN LEGAL REGULATION\*

\* SOURCE: COMPILED BY THE AUTHORS

Enterprises that are ready to move to a new level of quality of their reporting should review their accounting policies, which should be based on the transition from traditional business accounting to Sustainability Accounting. Preliminarily presented in Fig. 1 is not news

for the modern business entity. Sustainability enterprise has long changed its attitude towards the environment. Now only the need arises for the possibility of forming transparent reporting.

The prospect of implementing integrated reporting is no longer on the agenda. This is a reality that not only acts, but also spreads exponentially. Therefore, the table 3 presents the current state and prospects for the implementation of integrated reporting in Ukraine among all business entities.

Compulsory reporting is intended only for large and medium-sized enterprises. Their number is 16653 enterprises (Table 3).

TABLE 3: PROSPECTS FOR THE IMPLEMENTATION OF INTEGRATED REPORTING IN UKRAINE\*

Year	Business entities, units				
	TOTAL	Big	Medium	Small	Private entrepreneurs
2012	1600127	698	20550	68103	1510776
2013	1722070	659	19210	65021	1637180
2014	1932161	497	16618	55159	1859887
2015	1974318	423	15510	47555	1910830
2016	1865530	383	15113	49298	1800736
2017	1805059	399	15254	52324	1737082

\* SOURCE: COMPILED BY THE AUTHORS BASED ON DATA [13]

But in our opinion, small enterprises with an appropriate estimate of the book value of assets from 350 thousand to 4 million euros and net income from sales from 700 thousand to 8 million euros in the near future will be obliged to form and publish reports on their sustainable development. And if this does not happen, then there will be an evolutionary change in the views and goals of entrepreneurship and small enterprises will clearly report to their stakeholders in terms of environmental, social and governance.

#### IV. THE AGRICULTURE SUSTAINABILITY MEASURING

The appropriateness of our research orientation towards the indicators' using as an instrument for measuring agriculture sustainable development is confirmed by the scientific interest of Ukrainian and foreign authors. Recent researchers agree that indicators are rarely used in practice, and recommend priority to indicators that are aimed at quantifying the effect (action) of agricultural practices in relation to a specific goal (as opposed to indicators characterizing economic practices or means of production)

Problems of regional research in the context of sustainable development are highlighted in the works of such scientists as Azar S. [14], Lambertson J. [15], Mayerhofer P. [16], Crutzen N., Zvezdov D., Schaltegger S. [17] and others.

Peculiarities of the methods application for assessing sustainable development in agriculture have been studied in the works of Zalizko V.D. [18], Popova O.L. [19], Lewis K.A., Bardon K.S. [20], Svenson T. [21], and others. They have examined and disclosed the main essence of the assessment and definition instruments of sustainable development, both in the complex and separately of the three components, according to

economic, social and environmental subcomponents.

Currently, there are many methods for sustainable development assessing, including for agriculture. But, most of them are not universal for determining the level of sustainable development in agriculture for small or large enterprises or for assessing sustainable development at the macro level – for the agricultural region, district or country.

The author emphasizes the need to use an integrated methodology for managing agricultural sustainable development. Its indicators should be obtained in accordance with clear and precise economic, environmental and social objectives and realistic requirements for data collection and calculations.

Thus, the assessment is carried out on the basis of the indicators system of agricultural enterprises sustainable development and regions, formed from three subsystems: economic, ecological-organizational and socio-territorial, characterized by certain properties and nomenclature indicators. Each indicator is given by definition score, taking into account the maximum possible, determined by methodology. The methodology supposes the indices usage in the dynamic indicator calculation.

The interval scale is used for obtained range distributing for interpretation the assessments results. There are five separate groups for level assessing of regions development: critically low (below 40), low (41-50), medium (51-60), higher than average (61-70) and high level (above 70) of integrated assessment of sustainable development or the manifestation of its individual component.

Characteristics of sustainable development levels in agriculture are not always dependent on external factors or compared with other investigation objectives. Also, the usage level of economic, environmental and social opportunities and resources can be make influence.

After the three subsystems level determination (economic, ecological-organizational and socio-territorial) is the next stage of the investigation is the selection of a methodological approach for determining the integral index of agricultural development.

The results of group calculating and final integral indicators of agriculture sustainable development in 2017 are given in Table. 4.

TABLE 4: GROUP AND INTEGRAL INDICATORS OF UKRAINIAN AGRICULTURE SUSTAINABLE DEVELOPMENT IN 2017\*

Region (territory)	Group indicator, points			Integral indicator, points	Region rating by integral indicator, rank
	Economic	Ecological	Social		
Kiyvskaya	53	76	70	<b>66</b>	1
Ukraine	49	71	76	<b>65</b>	2
Dnipro	41	75	69	<b>62</b>	3
Kharkiv	47	53	83	<b>61</b>	4
Cherkassy	39	70	69	<b>59</b>	5
Zaporozhye	44	55	79	<b>59</b>	6
Poltava	42	61	74	<b>59</b>	7
Nikolaev	43	58	76	<b>59</b>	8
Kherson	39	57	78	<b>58</b>	9
Vinnitsa	47	61	66	<b>58</b>	10
Kirovograd	44	52	78	<b>58</b>	11
Khmelnytsky	38	58	73	<b>56</b>	12
Odessa	45	51	72	<b>56</b>	13

Sumy	39	49	76	<b>55</b>	14
Lviv	31	64	69	<b>55</b>	15
Chernihiv	41	50	71	<b>54</b>	16
Ternopil	33	53	76	<b>54</b>	17
Donetsk	34	58	70	<b>54</b>	18
Zhytomyr	26	58	77	<b>54</b>	19
Volyn region	27	64	66	<b>52</b>	20
Lugansk	36	48	72	<b>52</b>	21
Rivne	30	62	62	<b>51</b>	22
Ivano-Frankivsk	19	70	58	<b>49</b>	23
Chernivtsi	23	67	53	<b>48</b>	24
Zacarpatskaya	26	67	45	<b>46</b>	25

\* CALCULATED BY AUTHORS

The visual representation (Figure 3) of the regions based on the integrated indicator of agriculture sustainable development carried out using the method of values equal distribution, namely, by the proposed integrated assessment scale.



FIGURE 3: INTEGRAL INDICATOR OF AGRICULTURE SUSTAINABLE DEVELOPMENT BY THE UKRAINE REGIONS IN 2017\*

\* SOURCE: COMPILED BY THE AUTHOR BASED ON [22],[23]

## V. CONCLUSION

The analysis of the need for the transformation of the traditional accounting system has allowed us to formulate a general concept of innovative accounting for sustainable development, based on information on the performance of the main five types of capital. As a result, three stages of transition and implementation of sustainable development accounting in enterprises were proposed. It has been established that when forming a new accounting system, it is necessary to take into account the focus and sources of information generation, which is the basis of internal and external accounting for sustainable development.

Today, all business entities and institutions of state regulation should understand that integrated reporting should not only become an instrument of transparency of activity and control of environmental and social activities, but one in front, a means of inducing changes in the main objective and purpose of entrepreneurship - to achieve maximization of economic profit at the same time a progressive increase in environmental and social capital. It is these two capitals that should increase around the subject of entrepreneurial activity. Integrated reporting and, accordingly, the accounting and analytical process of its formation is on a par with the means to achieve the main goals of sustainable development: from overcoming poverty to partnership for sustainable development.

To achieve a better effect and a significant improvement in the indicators and components of the global goals of sustainable development in Ukraine as a whole, a phased expansion of the categories of entrepreneurship is required, which should form and publish standardized Management Reports and sustainable development. These categories should not be limited to medium-sized enterprises. Small enterprises producing more than 50% of GDP and should provide integrated reporting. Of course, these innovations require gradual regulation. But some types of enterprises for certain types of activities must necessarily generate a Management Report regardless of size and form of ownership. This is especially true for the chemical and extractive industries.

The choice and justification of indicators for characterizing certain parts of the triune sustainable development system – economic, social, ecological – is the basis for an level integral assessment of the Ukrainian agriculture sustainable development. Undoubted importance of this method lies in its simplicity, unification, harmonization and universality, which is achieved by combining the using possibilities of two completely different levels and research objects of: for the local level – the level of the agricultural enterprise, and for the global level – the level of the district, region or country generally. The purpose of the developed methodology is to determine the integral indicator of agriculture sustainable development without attracting additional knowledge and skills from the researcher in the presence of the necessary primary data.

Integral assessment is the central component of accounting and analytical supplying and a basis for making informed operational and strategic management decisions, forming strategies for agriculture sustainable development at the enterprise or at regional level.

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