DOI: https://doi.org/10.59503/29538009-2026.3.19-174

CONCEPTUAL IMPROVEMENTS TO INVESTMENT POLICY IN THE GREEN AGRO-INDUSTRIAL SECTOR OF ARMENIA

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Abstract: The formulation of a concept for green investments is a priority for ensuring sustainable development. This issue remains to be addressed within the green agro-industrial sector, which encompasses the "agriculture – food processing – distribution" value chain. Currently, it is crucial to determine how an effective investment policy should be developed and implemented at each stage of this value chain, as well as within the green agro-industrial system as a whole.

The study analyzes current challenges in investment policy within the green agro-industrial sector and proposes mechanisms for evaluating the effectiveness of green investments, using the Republic of Armenia as a case study.

Keywords: green agro-industry, investment policy, stakeholders in green investments, indicators of investment effectiveness, concept of green investments

JEL code: O13

Research aims: to present the factors, influencing investment policy in the green agro-industry.

Research novelty: approaches for assessing the risks and advantages associated with investments in the green agro-industry have been developed, based on balancing the positive and negative factors affecting investment outcomes.

Introduction

Defining investment policy and shaping it realistically in line with the demands of the times, has always been a fundamental challenge within the business environment. On one hand, the business sector consistently strives to attract investments, anticipating economic growth and the necessary level of competitiveness. On the other hand, investment risks act as a counterweight, highlighting the potential failure of investment projects, the inability to meet investor expectations, and, in some cases, the complete collapse of ill-conceived investment initiatives. In this context, investment policy in any business environment must be built upon realistic foundations, balancing the anticipated additional benefits of investments against potential losses arising from risks (Díaz-Bonilla, 2023). This challenge is particularly acute in the realm of green investments, which involves a larger group of stakeholders and a broader spectrum of public expectations, entailing not only economic benefits, but also social and

environmental gains. Furthermore, green investments are inherently linked to corporate social responsibility and the application of ESG principles, which bring into play expectations concerning both private and public interests.

Methodology

The research employs methods of scientific abstraction, alongside applied studies. Specifically, surveys were conducted among stakeholders involved in investment processes within the green agro-industrial sector of the Republic of Armenia to evaluate the effectiveness of investment policy. Comparative assessments were carried out regarding the positive and negative outcomes of green investments. Furthermore, the formation of an ecosystem for investment policy in the green agro-industrial sector was evaluated, taking into account sustainable development trajectories across the "agriculture - food processing - distribution" value chain. In assessing the effectiveness of investments in the green agro-industrial sector, consideration was given to business organization based on ESG (Environmental, Social, and Governance) principles, as well as innovative transformations in economic management practices.

Literature Review

The viability of investments in the agro-industrial sector depends largely on the state of agriculture, which, in the Republic of Armenia, does not meet international standards in terms of competitiveness (Aramyan & Sarukhanyan, 2025). A structural analysis of the Gross Domestic Product (GDP) reveals that agriculture currently does not hold a favorable position.

Specifically, the composition of the main sectors of the Armenian economy within the GDP in 2025 was as follows: trade – 14.4%, manufacturing – 10.4%, financial and insurance activities – 9.7%, real estate activities – 8.8%, agriculture – 7.7%, and construction – 6.6%. Consequently, the agricultural and manufacturing sectors, which together constitute the agri-industrial value chain, do not yet hold a dominant position within the GDP structure, and there is a need to create opportunities for investment in these areas.

On the other hand, investments in the agricultural sector are rendered risky due to factors, such as the underdevelopment of agricultural insurance, the fragmentation of land plots, and inefficient policies regarding the pricing of agricultural produce. Furthermore, the level of investment risk is even higher within the "green" agri-industrial sector in Armenia, where the adoption of "smart" agricultural technologies and the development of the human capital required to support them are still in their nascent stages, compounded by a scarcity of financial resources for the implementation of such agricultural technologies (Makaryan, 2021).

There is no universally accepted definition of "green investment policy" in professional literature. While investment policy, in a general sense, is viewed as the set of goals, principles, and measures implemented by a state, organization, or individual aimed at attracting investments and ensuring the efficient allocation and utilization of investment resources, there is no consensus on the interpretation of "green investment policy (Tran et al., 2020)." At the same time, some authors define investment policy as the state regulation of investment processes, encompassing the activation and promotion of investments (Gernego et al., 2022). It is also

emphasized that investment policy consists of a set of measures aimed at fostering a favorable investment climate and determining the regulation of investments within the economy.

Currently, a structured investment policy is in place in the Republic of Armenia. The Law of the Republic of Armenia "On Investments" is in effect, alongside a number of government decrees regulating the investment landscape; furthermore, a concept for the implementation of investments has been adopted, and summaries of investment policy are published. On the other hand, however, regulations pertaining to "green" investments are limited solely to government decrees, while a specific investment policy concept for the green agro-industrial sector has yet to be developed. Given this, it is currently essential to devise ways to improve the conceptual framework for investment policy in Armenia's green agro-industrial sector an objective, we propose achieving by establishing a chain of interlinked improvement targets.

Research results

Studies indicate, that official statistics on green investments in the Republic of Armenia do not yet comprehensively reflect the outcomes of investment policy (Aramyan & Sarukhanyan, 2025). Nevertheless, it is currently evident, that over the last decade, the growth rate of green investments in the country's agro-industrial sector has outpaced that of traditional investments.

Within the framework of green investment policy, importance is placed not only on setting objectives and achieving them, but also on evaluating the counterbalancing factors arising from various sources, that precede investment decisions (Chimiea et al., 2021).

Consequently, a primary task within the policy process is to assess the implications stemming from arguments against green investments in the agro-industrial sector, and to take steps to weigh these against the potential benefits of such investments (Gernego et al., 2022).

Furthermore, green investments in the agro-industrial sector are also accompanied by institutional risks, related to operational inefficiencies, poor planning, or a complete lack (for example, the absence of environmental monitoring, the lack of an independent judicial system, or situations where a regulatory body fails to align with its own organizational and strategic objectives, etc.). Green investments are accompanied by innovations, that are not always perceived positively within the agro-industrial sector; they may initially encounter resistance from industry personnel, potentially leading to investment failures (Kuyper & Struik, 2014). Consequently, the objective is to quantify this non-financial risk indicator in order to assess the soundness of investment policy (Tshughuryan & Asatryan, 2026).

Another non-financial indicator of investment risk in the green agro-industrial sector is the availability of the resources required to implement innovations (Wolfert et al., 2017). Moreover, this stock includes not only financial, but also non-financial resources, such as the availability of a qualified workforce capable of managing innovations; the level of skills and capacities for utilizing cutting-edge technologies; the potential for generating and implementing green innovative ideas; the existence of necessary scientific and technical developments; an awareness of the public interest in carrying out green investments; and the level of corporate social

responsibility. Naturally, these factors entail certain risks within the process of implementing green investments (Tahat et al., 2020).

Since the socio-economic impacts of green investments are assessed using both financial and non-financial indicators, we propose evaluating the rationale for green investment policy in the agro-industrial sector through a scoring system. To this end, we suggest taking the following steps (see Figure 1).

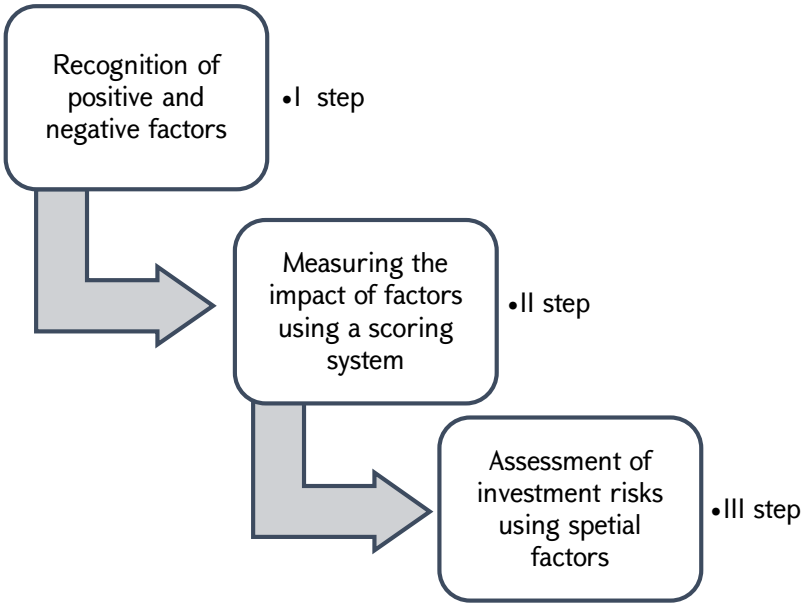


Figure 1. Proposed framework for assessing the rationale of green investment policy in the agro-industrial sector.
Source: *Authors' own work*

When developing an investment policy for the green agro-industrial sector, it is essential to identify and subsequently measure the anticipated positive and negative factors (Galbiati et al., 2023).

Naturally, depending on the specific circumstances, the scope and magnitude of the socio-economic factors associated with investments may fluctuate dynamically expanding or contracting (Investment Policy Guidelines for Local Goverments, 2025).

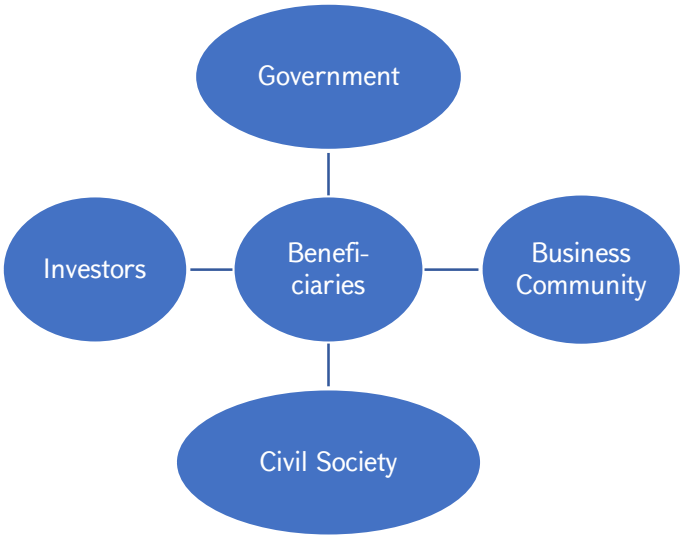


Figure 2. Scope of beneficiaries of investments in the green agro-industrial sector
Source: *Authors' own work*

The next step in evaluating investment policy for the green agro-industrial sector involves measuring the impact of these positive and negative factors using a scoring system. The outcomes associated with investments are not only multifaceted encompassing both positive and negative impacts, but also involve a wide range of stakeholders, including the government, business sector, civil society, and investors (see Figure 2). These stakeholders hold

varying expectations regarding green investment processes and exert a certain degree of influence on green investment policy.

Therefore, when evaluating the rationale behind investment policy in the green agro-industrial sector, it is essential not only to take into account, but also to examine the attitudes of the aforementioned stakeholders toward such investments.

With this in mind, we conducted an assessment, by surveying stakeholders within the green agro-industrial sector in the Republic of Armenia. The survey included 349 respondents: 31 representatives from relevant government agencies, 126 from the business community, 184 from civil society, and 8 individuals who have made investments in the sector.

The permissible margin of error for the survey sample was set at 5%, with a confidence level of 95%. This establishes the reliability of the surveys conducted within the green agro-industrial sector of the Republic of Armenia, which involved 349 respondents.

The surveys provide insight into the soundness of investment policy within the green agro-industrial sector, based on the positive and negative assessments provided by stakeholders.

As the third step in evaluating the soundness of green investment policy in the agro-industrial sector (see Figure 3), it is proposed to weigh the positive and negative outcomes associated with investment processes against each other, using relative indicators ($\sum C / \sum D$).

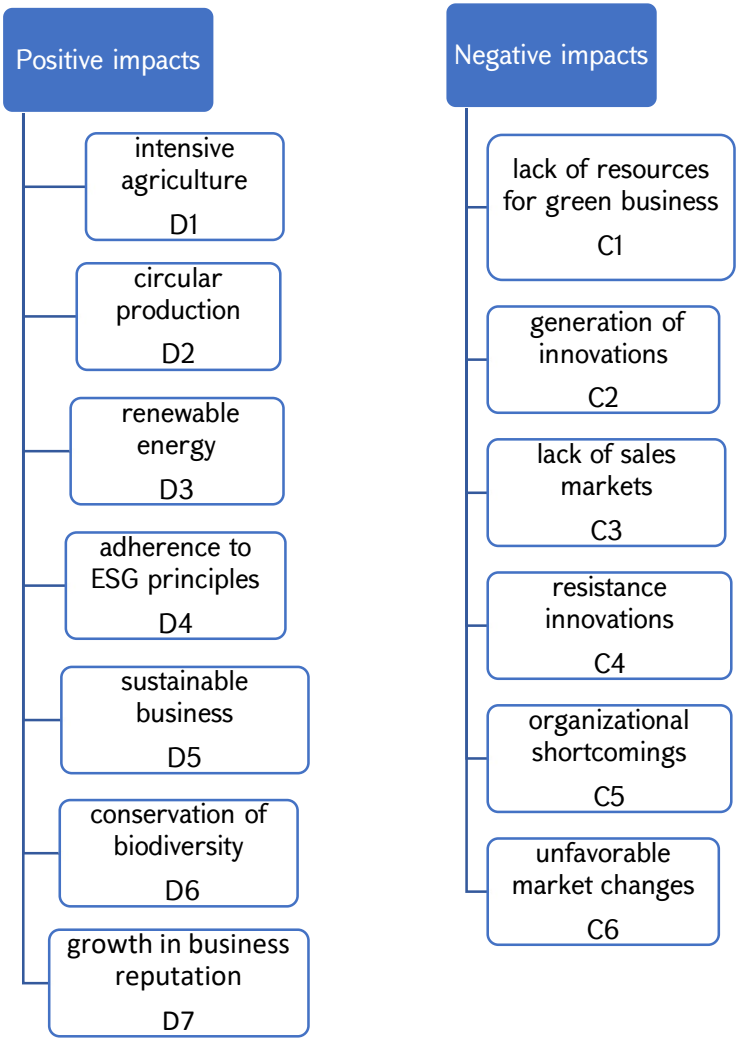


Figure 3. Measuring the outcomes of green investment policy
Source: *Authors' own work*

From the perspective of stakeholders, it is also important to apply a scale for assessing the soundness of investment policy in the green agro-industrial sector, we propose that this scale be based on the following criteria (see Table 1).

Table 1. Risk assessment scale for investment policy in the green agro-industrial sector
Source: *Authors' own work*

Degree of risk Assessment	Indicator
High	$(\sum C / \sum D) > 0,6$
Medium	$0,1 < (\sum C / \sum D) < 0,6$
Low	$(\sum C / \sum D) < 0,1$

It should be noted, that the threshold values for these proposed indicators are not fixed constants and may vary depending on the level of business competitiveness. Nevertheless, their use provides a basis for monitoring the extent to which the benefits expected from green investments outpace any resulting detriments a metric used to evaluate the soundness of investment policy from the stakeholders' point of view. Overall, we currently propose developing a comprehensive method for evaluating the efficiency of investments in "green" agribusiness. This method would go beyond the traditional "cost-benefit" concept by incorporating a broader range of non-financial factors, specifically those related to the transformation of agriculture toward an environmentally conscious, socially responsible, and inclusive innovative economy. Consequently, this will enable the assessment of green agro-industrial investments through the lenses of both sustainable

development and the organization of efficient agribusiness based on ESG (Environmental, Social, and Governance) principles.

Conclusion

The refinement of mechanisms for measuring the effectiveness of green investments within investment policy remains an unresolved issue. Green investments do not always pursue private economic interests, as they are primarily directed toward sustainable development a fact, that complicates the process of evaluating their effectiveness. While investments driven by private objectives are generally economic in nature and yield returns measurable in monetary terms, the returns on green investments often lack such monetary quantification. Consequently, this hinders the establishment of a framework for comparability within investment policy, limiting the ability to monitor socio-economic indicators of effectiveness. In this regard, in case of evaluating the effectiveness of the implementation of a "green" agro-industrial policy, we consider it preferable to employ a scoring system to measure outcomes; this establishes a common basis for comparing the financial and non-financial results derived from investments.

Furthermore, we emphasize the importance of incorporating the concept of social responsibility when formulating an investment policy for the green agro-industrial sector. Since green investments primarily pursue public interests, they extend beyond the scope of private responsibility and intersect with issues at the community, regional, and national levels. Therefore, the framework for investment policy in this sector cannot overlook the concept of corporate social responsibility. One way to improve investment

policy is to implement public accountability mechanisms when reporting on the outcomes of investments in the "green" agro-industrial sector. The framework we propose for substantiating investment policy in the green agro-industrial sector will enable the following:

First, it will allow for a comprehensive presentation of both the positive and negative outcomes of green investments in the agro-industrial sector, while taking into account the perspectives of stakeholders.

Second, it will make the perspectives of stakeholders regarding green investments in the agro-industrial sector quantifiable perspectives that serve as a foundation for establishing realistic objectives within investment policy.

Third, to assess the rationale for a green investment policy in the agro-industrial sector, based on balancing the positive and negative factors, that emerge within the sector as a result of investment processes.

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ՆԵՐԴՐՈՒՄԱՅԻՆ ՔԱՂԱՔԱԿԱՆՈՒԹՅԱՆ ՀԱՅԵՑԱԿԱՐԳԱՅԻՆ ԲԱՐԵԼԱՎՈՒՄՆԵՐԸ ՀՀ ԿԱՆԱՉ ԱԳՈՐԱՐԴՅՈՒՆԱԲԵՐՈՒԹՅՈՒՆՈՒՄ

Միքայել Մելքումյան
Հայաստանի պետական տնտեսագիտական համալսարան
տնտեսագիտության դոկտոր, պրոֆեսոր

Հայկ Մելքումյան
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ասպիրանտ

Բանալի բառեր – կանաչ ագրոարդյունաբերություն, ներդրումային քաղաքականություն, կանաչ ներդրումների շահառուներ, ներդրումների արդյունավետության ցուցիչներ, կանաչ ներդրումների հայեցակարգ

Կանաչ ներդրումները, հիմնականում հանրային շահեր հետապնդելով, մասնավոր պատասխանատվության շրջանակից դուրս են գալիս և առնչվում են համայնքային, մարզային և պետական խնդիրների հետ: Ուստի, այս ոլորտում իրականացվող ներդրումային քաղաքականության շրջանակը չի կարող շրջանցել կորպորատիվ սոցիալական պատասխանատվության ինստիտուտը և ներդրումային քաղաքականության բարելավման ուղիներից մեկը պետք է հանդիսանա հանրային հաշվետվողականության կառուցակարգերի կիրառումը կանաչ ագրոարդյունաբերությունում:

Կանաչ ներդրումների հայեցակարգի ձևավորումը կայուն զարգացումը ապահովող առաջնահերթություններից է: Այս

խնդիրը թերևս իր լուծումներին է սպասում կանաչ ագրոարդյունաբերության ոլորտում, որտեղ գործում է «գյուղատնտեսություն - սննդի վերամշակում - իրացում» արժեքային շղթա: Ներկայումս կարևորվում է, թե ինչպես պետք է ձևավորվի և իրականացվի արդյունավետ ներդրումային քաղաքականություն արժեքային այդ շղթայի յուրաքանչյուր օղակում և ընդհանրապես՝ կանաչ ագրոարդյունաբերության ամբողջական համակարգում:

Հետազոտությունում վերլուծվում են կանաչ ագրոարդյունաբերությունում ներդրումային քաղաքականության ներկայիս մարտահրավերները և առաջարկվում են կանաչ ներդրումների արդյունավետության գնահատման կառուցակարգեր՝ Հայաստանի Հանրապետության օրինակով:

Submitted: 03.10.2026; Revised: 20.10.2026; Accepted: 05.11.2026