

# INSTITUTIONAL STRATEGIES OF INNOVATION BASED SECTORAL SUSTAINABLE DEVELOPMENT (CASE OF ESTONIAN AGRICULTURE AND FISHERIES STRATEGY)\*

## ІНСТИТУЦІЙНІ СТРАТЕГІЇ СЕКТОРАЛЬНОГО СТАЛОГО РОЗВИТКУ НА ОСНОВІ ІННОВАЦІЙ (КЕЙС СТРАТЕГІЇ СІЛЬСЬКОГО ГОСПОДАРСТВА ТА РИБАЛЬСТВА ЕСТОНІЇ)

*Sustainable development has become a critical goal for institutions worldwide, necessitating comprehensive strategies that address the complex interplay between economic growth, environmental protection, and social equity. This research explores the institutional strategies for sustainable development, emphasizing the importance of a multi-dimensional approach to foster a more sustainable and equitable future. One of the primary strategies adopted by institutions is the integration of sustainability into their core policies and practices. This involves setting clear, measurable goals aligned with the principles of sustainable development. Institutions often develop sustainability frameworks that guide decision-making processes, ensuring that environmental, social, and economic considerations are balanced. The objective of research deals with the studying of case of development of institutional based strategy on example of Agriculture and Fisheries Strategy 2030 of Estonia. Estonian agriculture has undergone significant changes since the 1990s as a result of reforms, political and legislative changes. The need to develop a comprehensive national Strategy is due to the influence of a number of global trends in sectors related to agriculture, fishing and the food industry. These transformations are related to the dynamics of incomes, new technologies related to agriculture, the state of the environment, changes in consumer attitudes, trade liberalization, energy and urbanization. As a result, there is an increase in consumption of agricultural products and trade, intensification and concentration of production. The strategy is focused on using Estonia's existing competitive advantages related to its existing resource base and geographical location. Compared to other EU countries, Estonia is well endowed with biological resources, but the bottleneck is the low added value of exports of low-processed products. An important vector in the agro-bioeconomy is related to the recycling of waste and by-products, which is not popular in Estonia. For the implementation of relevant biotechnological solutions, it is necessary to coordinate research and development, as well as knowledge transfer.*

**Key words:** sustainable development, institutions, policies, strategy.

*Сталий розвиток став критично важливою метою для інституцій у всьому світі, що вимагає комплексних стратегій, які враховують складну взаємодію між економічним зростанням, захистом навколишнього середовища та соціальною справедливістю. Це дослідження присвячене вивченню інституційних стратегій сталого розвитку й підкреслює важливість багатовимірної підходу для сприяння більш стійкому майбутньому. Однією з основних стратегій, які використовують установи, є інтеграція сталого розвитку в їхні основні політики та практики. Це включає встановлення чітких, вимірюваних цілей, узгоджених з принципами сталого розвитку. Мета дослідження полягає у вивченні випадку розробки стратегії на інституційній основі на прикладі Стратегії сільського господарства та рибальства Естонії на 2030 рік. Естонське сільське господарство зазнало значних змін з 1990-х років внаслідок реформ, політичних та законодавчих змін. Необхідність розробки комплексної національної стратегії обумовлена впливом низки глобальних тенденцій у секторах, пов'язаних із сільським господарством, рибальством та харчовою промисловістю. Ці трансформації пов'язані з динамікою доходів, новими технологіями, станом навколишнього середовища, зміною споживчих настроїв, лібералізацією торгівлі, енергетикою та урбанізацією. В результаті цих процесів зростає споживання сільськогосподарської продукції та торгівлі, інтенсифікація та концентрація виробництва. Стратегія зосереджена на використанні існуючих конкурентних переваг Естонії, пов'язаних з її ресурсною базою та географічним розташуванням. Порівняно з іншими країнами ЄС, Естонія добре забезпечена біологічними ресурсами, але вузьким місцем є низька додана вартість експорту низькопереробленої продукції. Важливий вектор в агробіоекономіці пов'язаний з переробкою відходів та побічних продуктів, що не є популярним в Естонії. Для впровадження відповідних біотехнологічних рішень необхідно координувати науково-дослідні роботи, а також трансфер знань, що враховано у відповідній стратегії.*

**Ключові слова:** сталий розвиток, установи, політики, стратегія.

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**Introduction.** Sustainable development has become a critical goal for institutions worldwide, necessitating comprehensive strategies that address the complex interplay between economic growth, environmental protection, and social equity. This research explores the institutional strategies for sustainable development, emphasizing the

importance of a multi-dimensional approach to foster a more sustainable and equitable future. One of the primary strategies adopted by institutions is the integration of sustainability into their core policies and practices. This involves setting clear, measurable goals aligned with the principles of sustainable development. Institutions often develop sustainability

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frameworks that guide decision-making processes, ensuring that environmental, social, and economic considerations are balanced. For instance, adopting sustainable procurement policies that prioritize environmentally friendly and socially responsible products can significantly reduce an institution's ecological footprint and promote ethical practices across supply chains.

Policy advocacy and engagement are also key components of institutional strategies for sustainable development. Institutions actively participate in policy dialogues and advocate for regulatory frameworks that promote sustainability. By influencing policy at local, national, and international levels, institutions can create enabling environments for sustainable development. This includes advocating for policies that incentivize renewable energy adoption, sustainable land use, and the protection of natural resources. Institutions also work to ensure that policies are inclusive and equitable, addressing the needs and rights of marginalized and vulnerable populations.

**Literature review.** In our previous studies we have explored the theoretical underpinnings of national strategic innovation security, emphasizing the need for comprehensive policy frameworks to support innovation ecosystems. This review provides insight into how countries can safeguard and promote innovation as a core component of national security [1]. In research [2] we have examined the conceptual aspects of institutional and technological design. His work highlights the importance of robust institutional frameworks and technological advancements in fostering innovation within various sectors, including agriculture.

The European Commission's 2023 overview of Estonia's CAP Strategic Plan outlines the country's agricultural priorities and funding mechanisms. This plan is pivotal in directing EU funds towards sustainable agricultural practices and rural development in Estonia [3]. The strategic plans for Estonia and Latvia, worth €3.8 billion, have been approved under the Common Agricultural Policy for 2023-27. This significant investment aims to enhance agricultural productivity and sustainability in the region [4]. The Directorate-General for Agriculture and Rural Development has approved the CAP Strategic Plans for Estonia and Latvia, focusing on aligning local agricultural practices with EU-wide sustainability goals [5; 6].

The European Commission's 2020 report on financial needs in Estonia's agriculture and agri-food sectors identifies key areas requiring investment to boost competitiveness and innovation. This assessment is crucial for shaping targeted financial support mechanisms [8]. Eurostat's 2019 publication provides comprehensive data on agriculture, forestry, and fisheries, offering a statistical backdrop to

understand the sector's evolution and current status in Estonia [9]. Gonzalez-Corzo (2013) discusses Estonia's post-Soviet agricultural reforms, drawing lessons for countries like Cuba. His analysis sheds light on the challenges and successes of transitioning to a market-oriented agricultural system [10]. Gruère, Shigemitsu, and Crawford (2020) evaluate changes in agriculture and water policy, aligning them with OECD and G20 recommendations. Their work is instrumental in understanding policy evolution and its impact on sustainable agriculture [11]. Jørgensen (2005) investigates subsistence farming in re-independent Estonia, noting the expansion of private plots and its implications for rural livelihoods and agricultural productivity [12]. Jørgensen (2016) addresses land reform and fragmentation issues in Estonia, proposing future consolidation strategies to enhance land use efficiency and agricultural output [13].

The Ministry of Regional Affairs and Agriculture's 2023 strategy outlines Estonia's long-term vision for agriculture and fisheries, focusing on sustainability, food safety, and rural development [14; 15]. OECD's 2018 report on Estonia's agricultural innovation system provides an in-depth analysis of the factors driving productivity and sustainability in the agricultural sector, highlighting the role of innovation [16; 17]. The OECD's 2019 country note on Estonia reviews the main characteristics and evolution of water and agriculture policies over a decade, underscoring the integration of sustainable practices [18]. Rasva and Jørgensen (2022) explore the concentration of agricultural land in Estonia and potential containment strategies, discussing the implications for rural development and land use policies [19]. Unwin (1997) examines agricultural restructuring and integrated rural development in Estonia, providing historical context and analysis of the policies aimed at revitalizing rural areas [20]. The World Bank's 1997 update on Estonia's agricultural and forestry policies offers a comprehensive review of policy changes and their impacts on the sector, providing a historical perspective on Estonia's transition to modern agricultural practices [21].

**The objective of research** deals with the studying of case of development of institutional based strategy on example of Agriculture and Fisheries Strategy 2030 of Estonia.

**Main material.** The agricultural sector plays an important role in the economy of Estonia. The agricultural sector not only provides food security, but is also a source of income for a significant proportion of the country's population, especially in rural areas. The agricultural sector plays an important role in maintaining biodiversity and sustainable environmental management. As a part of the EU, Estonia strives to use environmentally sustainable production methods, which helps to preserve the environment and improve

the quality of agricultural products. The agricultural sector is an important factor in the development of tourism in the country. Tourists are attracted by beautiful rural landscapes, environmentally friendly products and get to know the local culture by visiting farms. Thus, the agricultural sector is not only a key element of the Estonian economy, but also contributes to its sustainable development, social stability and resource conservation.

Estonian agriculture has undergone significant changes since the 1990s as a result of reforms, political and legislative changes (OECD, 2018a).

The study (Unwin, 1997) carried out a retrospective analysis of rural development, land reform and privatization of collective farms. The study focuses on expanding alternative sources of income available to rural residents. According to the author, an integrated approach to the development of rural areas is the most promising for the future economic viability of rural areas (Gonzalez-Corzo, 2013).

Report (Worldbank Natural Resources Management Division, 1997) summarized the features of Estonia's agrarian policy and progress up to 1996, and also included a set of proposals for further actions at the national level in the agrarian sphere:

"(1) maintaining an open market-oriented agriculture sector by continuing commitment to liberalized prices and markets, and becoming a trading center for the Baltic states;

(2) accelerating land reform and coordinating activities like cadaster registration and restitution, introducing financial incentives, developing a framework for a functioning land market, disposing of state land, upgrading the farm drainage infrastructure, allowing for more foreign participation, and removing controls on land rents;

(3) becoming internationally competitive in agroprocessing, and increasing efficiency in agricultural service delivery, removing preferences

and opening up to foreign capital investments, establishing farmers' machine cooperatives, and upgrading agro-processing to European Union (EU) standards;

(4) setting up sustainable rural financial services training financial services staff and farmers, supporting private banking, phasing out interest rate subsidies for rural lending, and developing a rural guarantee fund;

(5) establishing a strategic framework to assist the rural sector by accelerating private sector driven technological changes, setting up a research funding system and demand-driven agricultural education, focusing on rural poverty and regional development, improving and developing advisory services, and monitoring food quality to meet EU standards".

It was important to reform traditional relations during the country's transition to a market-based private economy. In Estonia, land reform was evolutionary and supported the widest possible range of interest groups (Jürgenson, 2016; Rasva & Jürgenson, 2022). According to the Estonian Land Board (Estonian Land Board, 2015), in 2014, 93% of the territory of Estonia was reformed.

Now Estonia's agriculture mainly produces milk, cereals, forage plants, oilseeds, cattle and pigs (Eurostat, 2019).

At the same time, in view of the relatively short period of transformations, the country has a number of disproportions in the development of the agricultural sector (Figure 1–2).

**Estonia Common Agricultural Policy 2023-2027**

The European Commission presented the Common Agricultural Policy (CAP) reform project in 2018. Its purpose was to improve the mechanisms of the EU policy on agriculture. Based on the results of discussions by the European Parliament, the EU Council and the European Commission, the CAP was adopted on December 2, 2021. As part of this

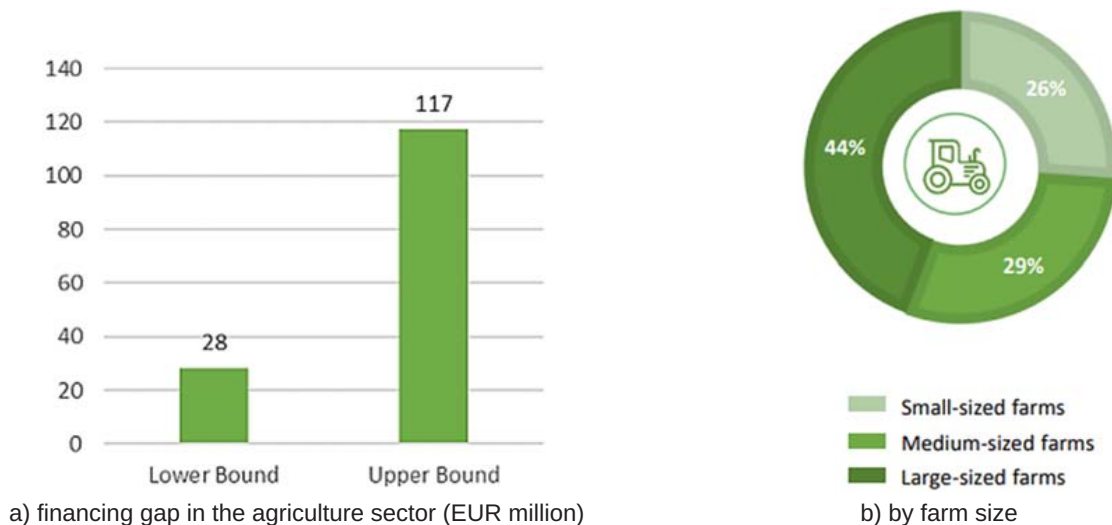
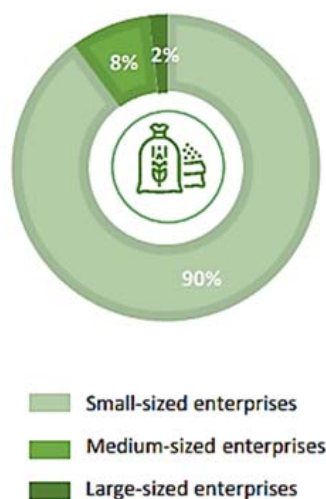
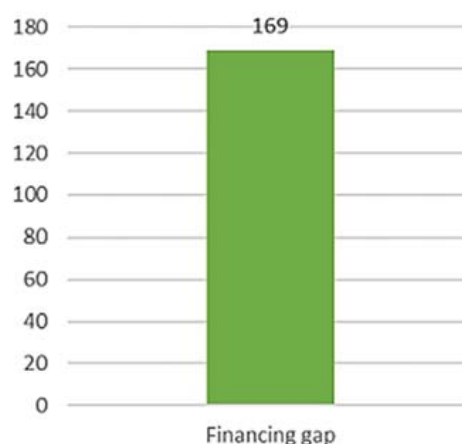


Figure 1. Financing gap in the agriculture sector (European Commission, 2020)



a) by enterprise size



b) financing gap in the agri-food sector (EUR million)

**Figure 2. Financing gap in the agri-food sector**

Source: (European Commission, 2020)

initiative, Estonia submitted proposals for a CAP strategic plan on January 2, 2022 after consultation with stakeholders.

The implementation of CAP has led to the transformation of the sector, leading to higher levels of productivity while reducing the negative impact on the environment. The advantage of the country, which forms the potential for the sector, is the high level of education and research institutions. It potentially promotes innovation in agriculture. The country's problem is that it is difficult for agro-food companies to implement research projects. Human resources for agriculture is a problem due to the growing shortage of labor and relevant skills in rural areas. Further innovation and adaptation are needed to sustain and develop agriculture and food production in Estonia.

Although the agricultural sector in Estonia is open to innovative solutions, it faces a limited number of crops due to the climate. According to information of Directorate-General for Agriculture and Rural Development (2024) the primary sector (agriculture, forestry and fishing) forms 2.5% of Estonia's total GVA, which is more than the EU average. Cereal crops account for about 50% of agricultural production, of which the share of cereals is almost half. Animal husbandry accounts for slightly more than 40%, the main contribution to milk production (23% of total agricultural production).

The importance of the Plan for Estonia is determined by the existing disparities in the development of the country's economy. Approximately 82% of the territory of Estonia belongs to rural areas, where about 44.5% of the population lives. About 11,300 farms with an average size of 87 hectares have been created in the country. Forests occupy about 50%, and agricultural land occupies almost 25% of the territory of Estonia.

Agricultural land is mainly cultivated by extensive methods, and only about 23% of it is managed organically (EU Commission, 2023).

According to information of Directorate-General for Agriculture and Rural Development (2022) Estonia will direct up to 45% of the total funding of the CAP plan to support the income sustainability of farmers and rural businesses. It should be noted that small and medium-sized farms will also receive support. The relevance of these approaches is important in view of the tradition, in particular agricultural production based on family farms played a significant role in Estonia and over the 20th century (Jørgensen, 2005).

From the environmental dimension, the Estonian plan envisages 456 million euros of the CAP budget for projects focused on environmental and climate goals. The priority will be the absorption of carbon, biodiversity, valuable meadows. A separate section is focused on education in the field of sustainable production. 23% of agricultural land for organic farming will receive support. According to the results of the package of support, measures and projects, Estonia plans to provide 1,250 new jobs in rural areas. Taking into account the national context, attention will be paid to young farmers, which will contribute to solving the problems of aging in rural areas and in the agricultural sector in general.

Estonia's CAP Strategic Plan is focused on expanding the income of rural businesses and increasing the sustainability of agriculture by This is planned to be achieved through the allocation of 730 million euros (approximately 45% of the total funding of the plan). In general, 98% of agriculture will be covered by types of support. For example, small and medium farms as an important component agricultural sector will receive higher support than

farms with an average size. The plan will provide additional production-related support (per hectare or per animal) for sectors facing certain challenges.

Let's note the trend when Estonian producers of agricultural products are ready to join cooperatives to participate in food quality programs. Although the number of cooperatives has grown exponentially in recent years, 80% of cooperatives operating in the market are small and still have a weak market position, providing little added value. Estonia's plan will further promote cooperation between primary producers to strengthen their position in the value chain, support the development of recognized producer organizations and producer participation in food quality schemes.

The plan is expected to provide some kinds of support to approximately 5,400 farmers. The support is aimed at increasing the competitiveness and quality of production in cattle, sheep, fruit, vegetable and field crops sectors. It is important that the Plan will contribute to the fact that 120 projects of producers of agricultural products and food enterprises will receive simplified access to financing through loans with preferential conditions.

#### **Related initiatives**

In the context of water management, in particular for agricultural use, River Basin Management Plans (RBMPs) for the three river basin districts is adopted in Estonia. They are also associated in 2019 new consolidated Water Act was adopted. New Water Act provides some actions in fertilization with manure outside of the Nitrate Vulnerable Zone (NVZ). Water protection tasks are included in the several Rural Development Plan (RDP) measures, and separate water protection measures were added to the RDP 2014-2020 (OECD, 2019).

#### **Agriculture and Fisheries Strategy 2030**

The need to develop a comprehensive national Strategy is due to the influence of a number of global trends in sectors related to agriculture, fishing and the food industry. These transformations are related to the dynamics of incomes, new technologies related to agriculture, the state of the environment, changes in consumer attitudes, trade liberalization, energy and urbanization. As a result, there is an increase in consumption of agricultural products and trade, intensification and concentration of production.

The strategy is focused on using Estonia's existing competitive advantages related to its existing resource base and geographical location. Compared to other EU countries, Estonia is well endowed with biological resources, but the bottleneck is the low added value of exports of low-processed products. An important vector in the agro-bioeconomy is related to the recycling of waste and by-products, which is not popular in Estonia. For the implementation of

relevant biotechnological solutions, it is necessary to coordinate research and development, as well as knowledge transfer. In the case of Estonia, it is necessary to intensify the involvement of the agricultural and fisheries sectors and their value-added bottlenecks, as well as the creation of biorefineries for primary producers. Considering the agro-economic potential of the country, it is worth paying attention to the development of marine aquaculture and the use of bio-raw materials from the marine industry.

According to Ministry of Regional Affairs and Agriculture (2023) Estonian Agriculture and Fisheries Strategy 2030 (Strategy) "aims to contribute to increasing the competitiveness of agriculture, fisheries, aquaculture and food industry sectors (e.g. cross-sectoral cooperation in bio-economy), good plant and animal health, improved soil conditions, food safety, sustainable rural and coastal development, and the maintenance of a clean environment and biodiversity". Strategy vision: "Estonian food is appreciated and it is good to live in the countryside" (Ministry of Regional Affairs and Agriculture, 2023).

The main objective of the Strategy is to prioritize local food, healthy environment and biodiversity, thriving food businesses and viable rural and coastal communities at the national level. Strategy provides for two sub-goals, that are linked to public budget programs, which are aligned with the corresponding eight areas with specific goals and areas of activity focused on sustainable development, mitigation of the consequences of climate change and adaptation to them. The strategy has directions of horizontal development that integrate the bioeconomy and export, the environment and integrated development of rural areas.

The logical scheme of Estonian Agriculture and Fisheries Strategy 2030 is shown on Figure 3.

It is envisaged that the strategy will be implemented on the basis of a partnership of actors from the public, private and third sectors, as well as research institutions engaged in agriculture, fisheries, aquaculture, food, rural and coastal development. Measures for the implementation of the Strategy will be designed taking into account the strategy for the dairy, meat, grain and horticulture and processing industry sectors. The overall logic of Strategy is to create a national food supply system with a healthy environment and preserved biodiversity, the functioning of thriving food businesses and viable rural as well as coastal areas. It was determined that the achievement of the goal is possible on the basis of agriculture, fishing and food production sectors that produce high quality products that are innovative and produced in an environmentally friendly way. It was identified that this involves greater cooperation both within and between sectors, as well as the use of research results and innovative technologies.

## AFS 2030 VISION

Estonian food is appreciated and it is good to live in the countryside!

### OVERARCHING GOAL

Estonia's food is preferred, the environment and biodiversity are preserved, food businesses are successful and rural and coastal communities are vibrant

#### SUB-OBJECTIVE

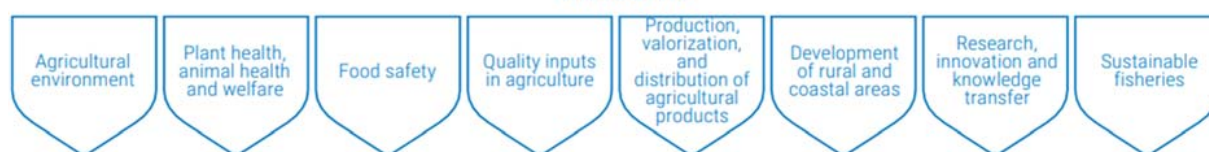
Smart and sustainable agriculture, food production and rural life, safe food and a well-maintained environment



#### SUB-OBJECTIVE

Sustainable fisheries that ensure the competitiveness of the fishing industry and the sustainable management of fish stocks

#### Directions



#### Horizontal development themes

Bio-economy, export, environment and holistic rural development

Figure 3. Logical scheme of Estonian Agriculture and Fisheries Strategy 2030

Source: (Ministry of Regional Affairs and Agriculture, 2023)

The Strategy sets a number of target indicators based on 2018–2020 levels and reflecting 8 key directions (Figure 4).

The strategy is complex in nature and is based on innovation component (OECD, 2018b). For example, the achievement of the "Sustainable fisheries" goal involves:

- 1) research to assess the possibility of fishing and fishing rules in balance with the stock;
- 2) technological measures (reduction of unwanted by-catch, restoration of hatcheries, maintenance of stocking sites);
- 3) creation of recreational fishing infrastructure and environmental information;
- 4) improvement of monitoring and supervision of fisheries, data exchange will be done electronically;
- 5) joint investments and initiatives that lead to economies of scale and competitive advantages for the industry;
- 6) implementation of environmentally friendly and energy-saving technologies and other effective use of aquaculture resources;
- 7) research program for the development of new aquaculture along the entire value chain (growing, processing, marketing);
- 8) new promising technologies and digital solutions for productivity and value addition implementation;
- 9) development of consumer understanding of fish consumption and aquaculture;
- 10) professional development and adaptation of enterprises and employees to changes in society

(for example, digital skills; development), including in the fisheries sector (for example, focusing on added value in the value chain);

11) CLLD approach, which will allow taking into account the specifics of fishing areas and infrastructure, the valorization of catches and the stimulation of the necessary forms of cooperation, as well as the implementation of innovative activities in various areas (for example, coastal tourism, marine biotechnology, marine aquaculture).

To achieve the main objectives and targets in respective areas, Strategy is integrated with the following key development documents: "Estonia 2035" strategy, Estonian national strategy for sustainable development "Sustainable Estonia 21", Climate policy guidelines 2050, Climate Change Adaption Development Plan Until 2030, Education Strategy 2021–2035, Farm to Fork strategy for a fair, healthy and environmentally-friendly food system, Bioeconomy Strategy, The future of food and farming – Communication on the Common Agricultural Policy post-2020, EU Budget: the Common Agricultural Policy beyond 2020.

#### Weaknesses and threats

The macroeconomic and sectoral analysis conducted by us allowed us to identify a number of **weaknesses and threats** to achieving the declared goals of Estonia's agricultural policy.

First, it is worth noting the challenges associated with soil degradation and loss of fertility. Estonian

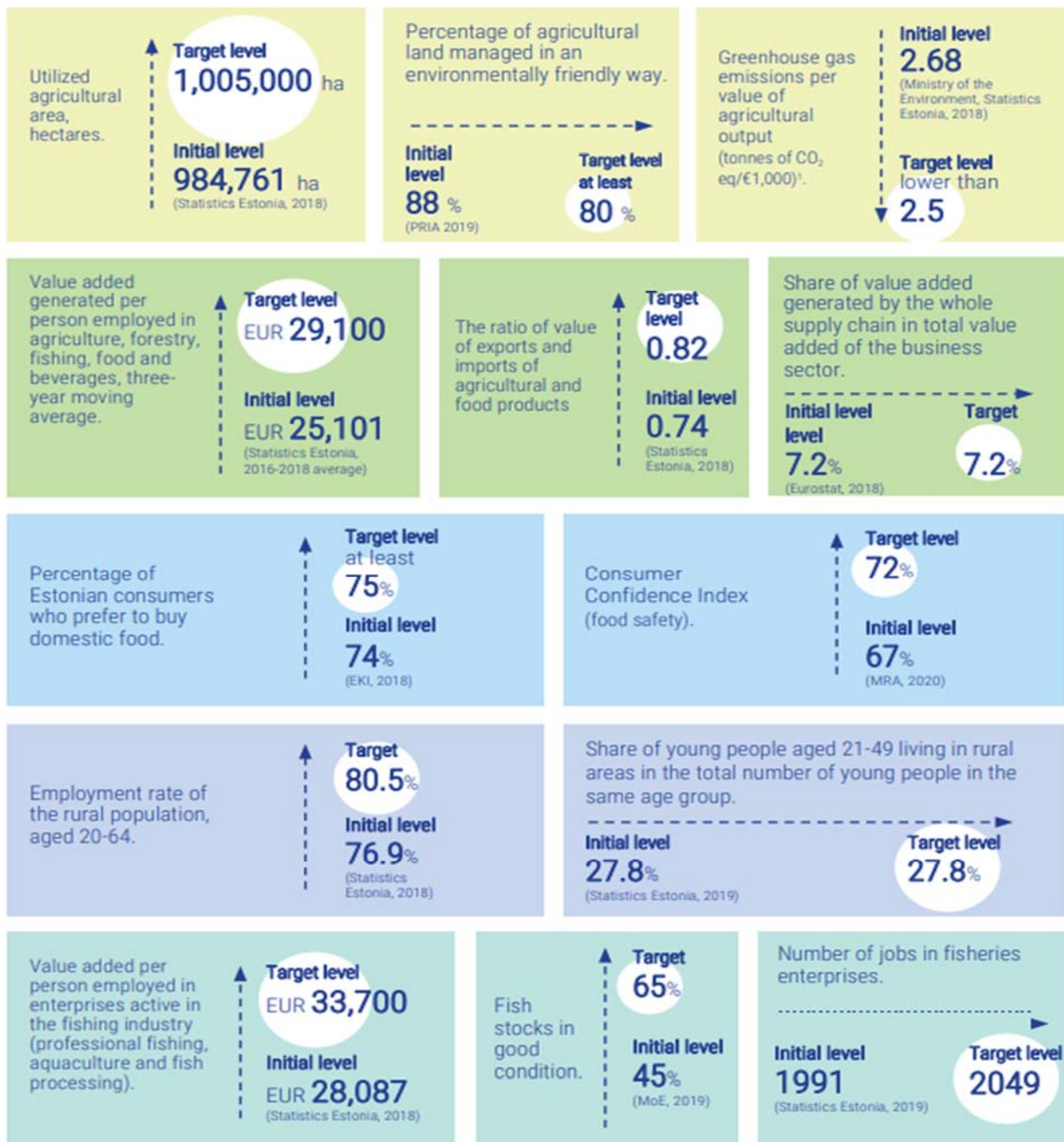


Figure 4. Targets of Estonian Agriculture and Fisheries Strategy 2030

Source: (Ministry of Regional Affairs and Agriculture, 2023)

agriculture is limited in the area of suitable land and depends heavily on soil quality, but unbalanced agro-industrial activities can lead to reduced fertility and soil pollution.

Intensive use of pesticides and chemical fertilizers can have a negative impact on the environment and public health. Although the Estonian government is taking steps to reduce the use of chemicals in agriculture, this remains a problem, especially in the context of preserving biodiversity and ecological balance.

The low competitiveness of some branches of agriculture, which is associated with climatic

and geopolitical risks, can pose a problem for the development of the sector as a whole. For example, the small size of some farms and the lack of effective infrastructure in the complex may make it difficult for them to compete on the EU market.

Traditionally, the rural communities of Estonia face the problem of the outflow of the population to the cities, and the emigration of qualified personnel. This can lead to a decrease in the number of labor force in agriculture and complicate its development.

Another weakness of the agricultural policy is related to the lack of sufficient financing and support for small and medium-sized farms, especially in the

context of the development of organic agriculture and other sustainable and environmentally friendly methods of growing products. Macroeconomic problems in the country and the highest level of inflation in the EU, in our opinion, are the reason for the lack of funds to support the sector.

In general, to solve these problems, we can propose an integrated approach based on cooperation between the government and the private sector for the development of sustainable agriculture in Estonia.

**Conclusion.** Institutional strategies for sustainable development encompass a comprehensive and integrated approach. By embedding sustainability into policies and practices, investing in R&D, fostering education and capacity building, promoting collaboration, advocating for supportive policies, implementing robust monitoring and reporting systems, aligning financial strategies, and prioritizing community engagement and social inclusion, institutions can drive meaningful progress towards a sustainable and equitable future. This multi-dimensional approach not only addresses the environmental and social challenges of today but also lays the foundation for a resilient and thriving world for future generations.

Estonian agriculture has undergone significant changes since the 1990s as a result of reforms, political and legislative changes. The need to develop a comprehensive national Strategy is due to the influence of a number of global trends in sectors related to agriculture, fishing and the food industry. These transformations are related to the dynamics of incomes, new technologies related to agriculture, the state of the environment, changes in consumer attitudes, trade liberalization, energy and urbanization. As a result, there is an increase in consumption of agricultural products and trade, intensification and concentration of production. The strategy is focused on using Estonia's existing competitive advantages related to its existing resource base and geographical location.

#### REFERENCES:

1. Omelyanenko V. (2020). National strategic innovation security policy making (theoretical review). Tallinn. Teadmus.
2. Omelyanenko, V. (2017). Analysis of conceptual aspects of institutional and technological design. *Technology Audit and Production Reserves*, 2(5(40), 31–36. DOI: <https://doi.org/10.15587/2312-8372.2018.128651>
3. EU Commission (2023). At a glance: ESTONIA'S CAP STRATEGIC PLAN. Available at: [https://rural-interfaces.eu/wp-content/uploads/2020/04/csp-at-a-glance-estonia\\_en.pdf](https://rural-interfaces.eu/wp-content/uploads/2020/04/csp-at-a-glance-estonia_en.pdf)
4. Pub Affairs Bruxelles (2022). Common Agricultural Policy 2023-27: strategic plans for Estonia and Latvia worth €3.8 billion approved. Available at: <https://www.pubaffairsbruxelles.eu/eu-institution-news/common-agricultural-policy-2023-27-strategic-plans-for-estonia-and-latvia-worth-e3-8-billion-approved/>
5. Directorate-General for Agriculture and Rural Development (2022). The Commission approves the CAP Strategic Plans of Estonia and Latvia. Available at: [https://agriculture.ec.europa.eu/news/commission-approves-cap-strategic-plans-estonia-and-latvia-2022-11-11\\_en](https://agriculture.ec.europa.eu/news/commission-approves-cap-strategic-plans-estonia-and-latvia-2022-11-11_en)
6. Directorate-General for Agriculture and Rural Development (2024). Estonia – CAP Strategic Plan. Available at: [https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans/estonia\\_en](https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans/estonia_en)
7. Estonian Land Board (2015). Ajalooliste Kaartide Rakendus.
8. European Commission (2020). Financial needs in the agriculture and agri-food sectors in Estonia. Available at: [https://www.fi-compass.eu/sites/default/files/2020-07/financial\\_needs\\_agriculture\\_agrifood\\_sectors\\_Estonia\\_executive\\_summary.pdf](https://www.fi-compass.eu/sites/default/files/2020-07/financial_needs_agriculture_agrifood_sectors_Estonia_executive_summary.pdf)
9. Eurostat (2019). Agriculture, forestry and fishery statistics: 2019 edition, Publications Office of the European Union, Luxembourg. DOI: <https://doi.org/10.2785/743056>
10. Gonzalez-Corzo, M.A. (2013). Estonia's Post-Soviet Agricultural Reforms: Lessons for Cuba al Reforms: Lessons for Cuba. CUNY Academic Works. Available at: [https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1085&context=le\\_pubs](https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1085&context=le_pubs)
11. Gruère, G., Shigemitsu, M. & Crawford, S. (2020). Agriculture and water policy changes: Stocktaking and alignment with OECD and G20 recommendations. *OECD Food, Agriculture and Fisheries Papers*, No. 144, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/f35e64af-en>
12. Jörgensen, H. (2005). Subsistence farming in re-independent Estonia: expanded private plots! *Acta Historica Tallinnensia*, (9), pp. 69–94. DOI: <https://doi.org/10.3176/hist.2005.1.03>
13. Jürgenson, E. (2016). Land reform, land fragmentation and perspectives for future land consolidation in Estonia. *Land Use Policy*, vol. 57, pp. 34–43.
14. Ministry of Regional Affairs and Agriculture (2023). Agriculture and Fisheries Strategy 2030. Available at: <https://www.agri.ee/en/ministry-news-and-contact/ministry-regional-affairs-and-agriculture/agriculture-and-fisheries#:~:text=The%20Estonian%20Agriculture%20and%20Fisheries,conditions%2C%20food%20safety%2C%20sustainable%20rural>
15. Ministry of Regional Affairs and Agriculture (2023). Agriculture and Fisheries Strategy 2030. Available at: <https://www.agri.ee/sites/default/files/documents/2021-09/poka-2030-executive-summary-2021.pdf>
16. OECD (2018a). Innovation, Agricultural Productivity and Sustainability in Estonia. DOI: <https://doi.org/10.1787/9789264288744-en>
17. OECD (2018b). The Estonian agricultural innovation system. in *Innovation, Agricultural Productivity and Sustainability in Estonia*, OECD Publishing, Paris. DOI: <https://doi.org/10.1787/9789264288744-10-en>



18. OECD (2019). Agriculture and water policies: main characteristics and evolution from 2009 to 2019. Estonia. Available at: <https://www.oecd.org/agriculture/topics/water-and-agriculture/documents/oecd-water-policies-country-note-estonia.pdf>

19. Rasva, M., & Jürgenson, E. (2022). Agricultural Land Concentration in Estonia and Its Containment Possibilities. *Land*, 11, 2270. DOI: <https://doi.org/10.3390/land11122270>

20. Unwin, T. (1997). Agricultural restructuring and integrated rural development in Estonia. *Journal of Rural Studies*, vol. 13, Iss. 1, pp. 93–112.

21. WorldBank Natural Resources Management Division (1997). Estonia Agricultural and Forestry Policy Update. EC4NR Agriculture Policy Note #10. Available at: <https://documents1.worldbank.org/curated/en/289171538244565173/pdf/Estonia-agricultural-and-forestry-policy-update.pdf>