MINISTRY OF AGRICULTURE AND ENVIRONMENT

ACTION PLAN FOR IMPLEMENTING THE VIETNAM SOIL HEALTH STRATEGY TO 2030, WITH A VISION TO 2050

Hà Nội, 2025

CONTENTS

1. GENERAL INFORMATION

1.1. Rationale

Land is a valuable natural resource that plays a fundamental role in sustainable economic and social development and national food security. However, in Vietnam, over 11 million hectares of land have been and continue to be severely degraded, including more than 100 thousand hectares of heavily degraded agricultural land, 1.65 million hectares of moderately degraded land, and 3.3 million hectares of slightly degraded land (General Department of Land Administration, 2020). This situation presents significant challenges, necessitating decisive leadership from management agencies and active participation from society as a whole.

The causes of land degradation in Vietnam stem from multiple complex factors, including excessive intensive farming, overuse of chemicals in agricultural production, and the negative impacts of climate change, industrialization, and urbanization. In previous periods, agricultural development was primarily driven by extensive expansion, with programs and strategies focused on increasing production to ensure food security and promote exports. The excessive intensification of crop cycles has prevented soil from recovering, leading to degradation. Consequently, the risk of diseases has increased, forcing farmers to use more fertilizers and pesticides. The health of Vietnam's soil is also increasingly threatened by climate change impacts. Rising temperatures and erratic rainfall contribute to erosion, moisture loss, and declining nutrient content in the soil. Extreme weather events such as droughts and floods disrupt soil structure, degrade beneficial microorganisms, and exacerbate deterioration. Additionally, rising sea levels result in soil salinization, affecting crop yields and threatening food security. The processes of industrialization and urbanization also pose unavoidable adverse effects on soil health in Vietnam. The expansion of urban areas reduces agricultural land while increasing soil compaction, diminishing water infiltration and nutrient exchange. Industrial activities discharge pollutants such as heavy metals, toxic chemicals, and waste, contaminating the soil, harming microorganisms, and impairing cultivation potential.

The Vietnamese government has undertaken numerous initiatives to protect and restore soil health to ensure sustainable development. Policies such as the Law on Environmental Protection, programs to reduce soil pollution, and the national action plan for combating desertification have been implemented. The government also encourages organic farming models, the use of biological fertilizers, and the reduction of chemical pesticides to improve soil quality. Furthermore, efforts to reforest, protect upstream forests, and control soil erosion in hilly areas have been intensified. On October 11, 2024, the Ministry of Agriculture and Rural Development (MARD) issued Decision 3458/QD-BNN-BVTV approving the "Project for enhancing soil health and nutrient management for crops

until 2030, with a vision to 2050." However, this project's scope remains limited to the agricultural sector, whereas soil health is a cross-sectoral issue requiring coordination among multiple ministries, agencies, and stakeholders.

To establish a scientific, legal, and practical foundation for soil management, protection, and improvement, the Draft Vietnam Soil Health Strategy until 2030, with a Vision to 2050, has been developed with support from FAO for the Ministry of Agriculture and Environment. This strategy not only aims to halt degradation but also promotes sustainable development, ensures long-term livelihoods for people, and protects the living environment, contributing to national prosperity amidst the growing challenges of climate change and deepening international integration. The strategy focuses on analyzing and providing solutions for agricultural production land.

Based on the Draft Vietnam Soil Health Strategy until 2030, with a Vision to 2050, the advisory group has proceeded with developing the National Soil Health Action Plan, detailing solutions and assigning specific responsibilities to relevant stakeholders.

1.2. Legal basis

- Resolution No. 18-NQ/TW dated June 16, 2022 on "Continuing to innovate and improve institutions and policies to enhance the effectiveness and efficiency of land management and use, creating a driving force for Vietnam to become a high-income developed country."
- Resolution No. 19/NQ-TW dated June 16, 2022, from the Fifth Conference of the Central Executive Committee of the Communist Party, 13th tenure, on agriculture, farmers, and rural development until 2030, with a vision toward 2045.
- Resolution No. 34/NQ-CP dated March 25, 2021, from the Government on ensuring national food security until 2030.
- Law on Crop Production dated November 19, 2018.
- Law on Environmental Protection dated November 17, 2020, and Decree No. 08/2019/ND-CP dated January 10, 2022, detailing some provisions of the Law on Environmental Protection.
- Land Law dated August 1, 2024.
- Decision No. 1658/QD-TTg of 2021 approving the National Green Growth Strategy for the period 2021-2030, with a vision toward 2050, issued by the Prime Minister.
- Decision No. 150/QD-TTg of 2022 approving the Strategy for Sustainable Agricultural and Rural Development for the period 2021-2030, with a vision toward 2050, issued by the Prime Minister.
- Decision No. 885/QD-TTg of 2020 approving the Organic Agriculture Development Project for the period 2020-2030, issued by the Prime Minister.

- Decision No. 3458/QD-BNN-BVTV of 2024 approving the "Project for Enhancing Soil Health and Nutrient Management for Crops until 2030, with a vision toward 2050," issued by the Minister of Agriculture and Rural Development.
- Decision No. 1748/QD-TTg of 2023 approving the Crop Production Development Strategy until 2030, with a vision toward 2050, issued by the Prime Minister.
- Decree No. 35/2015/ND-CP dated April 13, 2015, from the Government on the management and use of rice-growing land.
- Decree No. 62/2019/ND-CP amending and supplementing several provisions of Decree No. 35/2015/ND-CP on the management and use of rice-growing land.
- Decree No. 109/2018/ND-CP dated August 29, 2018, from the Government on organic agriculture.
- Decree No. 94/2019/ND-CP dated December 13, 2018, from the Government detailing some provisions of the Law on Crop Production regarding plant varieties and cultivation.
- Decree No. 84/2019/ND-CP dated November 14, 2019, from the Government on fertilizer management.
- Decree No. 55/2021/ND-CP dated May 24, 2021, amending and supplementing several provisions of Decree No. 155/2016/ND-CP on administrative penalties in the field of environmental protection.
- Decree No. 105/2022/ND-CP dated December 22, 2022, stipulating the functions, tasks, powers, and organizational structure of the Ministry of Agriculture and Rural Development.
- Decree No. 101/2024/ND-CP dated July 29, 2024, on basic land investigations; land registration, issuance of land use rights certificates, property ownership associated with land, and the land information system.
- Decree No. 31/2023/ND-CP dated June 9, 2023, on administrative penalties in crop production.
- Circular No. 32/2014/TT-BNNPTNT dated September 10, 2014, issued by the Minister of Agriculture and Rural Development, regulating environmental monitoring and warning activities in the agricultural sector.
- Circular No. 05/2017/TT-BTNMT dated April 25, 2017, issued by the Minister of Natural Resources and Environment, defining the process of building land databases.
- Circular No. 09/2019/TT-BNNPTNT dated August 27, 2019, issued by the Minister of Agriculture and Rural Development, introducing the National Technical Regulation on Fertilizer Quality (QCVN 01-189:2019/BNNPTNT).
- Circular No. 19/2019/TT-BNNPTNT dated November 15, 2019, issued by the Minister of Agriculture and Rural Development, regulating the collection, processing, and utilization of agricultural plant residues.

- Circular No. 12/2021/TT-BNNPTNT dated October 26, 2021, issued by the Minister of Agriculture and Rural Development, providing guidance on the collection, treatment, and reuse of livestock waste and agricultural by-products for other purposes.
- Circular No. 02/2022/TT-BTNMT dated January 10, 2022, issued by the Minister of Natural Resources and Environment, detailing the implementation of certain provisions of the Law on Environmental Protection.
- Circular No. 28/2022/TT-BNNPTNT dated December 30, 2022, issued by the Minister of Agriculture and Rural Development, introducing the National Technical Regulation on Wastewater from Livestock Farms for Use in Crop Cultivation (QCVN 01-195:2022/BNNPTNT).
- Circular No. 01/2023/TT-BTNMT dated March 13, 2023, issued by the Minister of Natural Resources and Environment, introducing the National Technical Regulations on Environmental Quality: QCVN 03:2023/BTNMT – National Technical Regulation on Soil Quality; QCVN 05:2023/BTNMT – National Technical Regulation on Air Quality; QCVN 08:2023/BTNMT – National Technical Regulation on Surface Water Quality; QCVN 09:2023/BTNMT – National Technical Regulation on Groundwater Quality; QCVN 10:2023/BTNMT – National Technical Regulation on Seawater Quality.
- Circular No. 11/2024/TT-BTNMT dated July 31, 2024, issued by the Minister of Natural Resources and Environment, specifying technical standards for land investigation, assessment, conservation, reclamation, and restoration.
- Circular No. 56/2024/TT-BTC dated July 31, 2024, issued by the Minister of Finance, regulating the collection, payment, management, and use of fees related to the exploitation and use of land documentation from the national land information system.
- Decision No. 225/QD-TTg dated February 25, 2021, issued by the Prime Minister, approving the Agricultural Sector Restructuring Plan for the period 2021-2025.
- Decision No. 882/QD-TTg dated July 22, 2022, issued by the Prime Minister, approving the National Action Plan for Green Growth for the period 2021-2030.
- Decision No. 540/QD-TTg dated June 19, 2024, issued by the Prime Minister, approving the Project on Developing Science and Technology Applications to Promote the Circular Economy in Agriculture until 2030.
- Decision No. 2732/QD-BNN-KH dated July 20, 2020, issued by the Minister of Agriculture and Rural Development, regulating management in basic agricultural sector investigations.
- Decision No. 555/QD-BNN-TT dated January 26, 2021, issued by the Minister of Agriculture and Rural Development, approving the "Project on Restructuring Vietnam’s Rice Sector until 2025 and 2030.

- Decision No. 3444/QD-BNN-KH dated September 12, 2022, issued by the Minister of Agriculture and Rural Development, approving the Ministry's Action Plan for the implementation of the National Green Growth Strategy for the period 2021-2030.
- Decision No. 4324/QD-BNN-BVTV dated November 9, 2022, issued by the Minister of Agriculture and Rural Development, approving the Ministry's Action Plan for strengthening organic fertilizer production and use, ensuring balanced and efficient fertilizer application for the period 2022-2025.
- Directive No. 117/CT-BNN-BVTV dated January 7, 2020, issued by the Minister of Agriculture and Rural Development, on enhancing the production and use of organic fertilizers.
- Directive No. 653/CT-BNN-BVTV dated January 25, 2022, issued by the Minister of Agriculture and Rural Development, on saving, balancing, and efficiently using fertilizers.

2. CONTEXT, TRENDS, AND APPROACHES TO DEVELOPING THE ACTION PLAN FOR IMPLEMENTING THE VIETNAM SOIL HEALTH STRATEGY TO 2030, WITH A VISION TO 2050

2.1. Context, trends, and approaches to developing the action plan for implementing the Vietnam soil health strategy

The draft Vietnam Soil health Strategy until 2030, with a vision to 2050 (hereinafter referred to as the "Soil health Strategy"), has been developed with the support of the FAO in collaboration with the Ministry of Agriculture and Environment. Prior to this, on October 11, 2024, the Minister of Agriculture and Rural Development issued Decision No. 3458/QĐ-BNN-BVTV, approving the "Project to Enhance Soil health and Manage Crop Nutrition until 2030, with a Vision to 2050." These documents highlight the significant role of "Soil health" within the agricultural and environmental sectors, and in socio-economic development more broadly. The Soil health Strategy contributes to the protection, restoration, and improvement of soil health, with the aim of ensuring human health, increasing agricultural productivity and output, enhancing adaptation to climate change, and balancing ecosystems. In doing so, it supports national food security, promotes economic growth, improves and restores environmental quality, and prevents biodiversity loss.

To operationalize the goals, directions, tasks, and solutions outlined in the Vietnam Soil health Strategy until 2030, with a vision to 2050, and to serve as a basis for ministries, sectors, localities, and relevant agencies to implement the strategy, the Action Plan for Implementing the Vietnam Soil health Strategy until 2030, with a vision to 2050 (hereinafter referred to as the "Action Plan for Implementing the Soil health Strategy") focuses on identifying specific activities, setting timelines, assigning responsibilities, and mobilizing corresponding resources.

2.1.1. Sustainable development

The Vietnamese Government has made strong commitments to green growth, emissions reduction, and sustainable agricultural development, creating a favorable policy environment for the protection and restoration of soil health. At the 26th United Nations Climate Change Conference (COP26), the Prime Minister of Vietnam pledged to achieve net-zero emissions by 2050, transition from fossil fuel energy to renewable energy, and reduce environmental pollution, including soil pollution. The National Green Growth Strategy for the period 2021 - 2030, with a vision to 2050, also emphasizes promoting the efficient use of resources and reducing greenhouse gas emissions; encourages the development of organic, sustainable agriculture while minimizing negative impacts on the land; and integrates land protection goals into socio-economic development planning. In

2020, the National Assembly also passed the 2020 Environmental Protection Law, which clearly defines the responsibilities of businesses and individuals in waste management and in limiting soil pollution, while imposing strict penalties for actions that cause land, water, and air pollution. The agricultural sector's development orientation also identifies the shift toward sustainable, ecological, and soil health-friendly agriculture as a key direction for the industry in the future. This perspective is consistently reflected in the sector's development strategy, restructuring programs, the national green growth action plan for agriculture, and the strategies and programs for restructuring sub-sectors.

The global market for sustainably produced agricultural products has been growing significantly, and Vietnam is also part of this trend. This growth has a positive impact on soil health in Vietnam, both directly and indirectly. According to statistics from the Institute of Organic Agricultural Research and the International Federation of Organic Agriculture Movements, the global organic product market was valued at 18 billion USD in 2000. By 2018, revenue exceeded 100 billion USD; in 2021, it surged to 188 billion USD, and in 2022, it was estimated to reach 208 billion USD. In Vietnam, nearly 80% of consumers are concerned about the chemicals used in the food they consume, and 86% prefer organic food products (AC Nielsen, 2021).

The development of the global and Vietnamese carbon credit markets will be an important opportunity to enhance the economic efficiency of sustainable agricultural practices that are soil health-friendly. The carbon credit market provides financial incentives for adopting sustainable farming and land management practices, which help increase the carbon absorption capacity of soils, such as reducing the use of fertilizers and pesticides, alternating wet and dry irrigation, soil covering, crop rotation to improve soil structure, agroforestry, using organic fertilizers, composting, and other organic waste treatment measures that enhance soil fertility, reduce greenhouse gas emissions from soil, and improve soil health. The financial resources from the sale of carbon credits will also promote projects for protecting primary forests, planting new forests, and restoring degraded forests, helping to maintain and enhance the carbon absorption capacity of forest ecosystems, which in turn indirectly protects forest soils from erosion and degradation.

2.1.2. Science and technology development

The development of technologies such as IoT (Internet of Things), AI (Artificial Intelligence), and GIS (Geographic Information Systems) is bringing remarkable advancements in soil management, particularly in monitoring soil quality and optimizing agricultural production. In the case of IoT, sensors placed in soil, mini weather stations, or monitoring drones can measure critical parameters such as moisture, temperature, pH levels, nutrient content (N, P, K), salinity, air temperature, humidity, rainfall, wind speed, solar radiation, and pest populations. These sensors collect real-time data and transmit it to a central system, aiding producers in determining the appropriate dosage and method for

fertilizer application, thereby improving product quality and preserving soil health. The data gathered from IoT devices is integrated into GIS systems and combined with AI-powered image interpretation tools to generate detailed digital maps of land resources. These maps display information on soil quality, topography, irrigation systems, and other relevant factors, allowing for the analysis of interrelationships among different elements on the map. This facilitates the identification of areas with nutrient deficiencies, regions prone to waterlogging, or zones at risk of pest outbreaks, enabling appropriate interventions to protect and restore soil health.

2.1.3. Economic development, urbanization, industrialization

In the future, the development of industrial zones, urban areas, and infrastructure will not only take away agricultural production land but also increase the risk of pollution affecting agricultural soils, leading to the formation of isolated agricultural production zones. According to the National Land Use Planning for the 2021-2030 period, with a vision toward 2045, by 2030, the area of non-agricultural land will increase by 965.37 thousand hectares, industrial land will grow by 120.10 thousand hectares, and transportation land (excluding traffic corridor land) will expand by 199.55 thousand hectares compared to 2020. Most of this additional land will be converted from unused land, with a portion taken from agricultural land, resulting in a reduction of 251.22 thousand hectares of agricultural land by 2030 compared to 2020. However, the most significant challenge in the process of industrial, urban, and infrastructure development is the fragmentation of agricultural production land and the risk of pollution from household and industrial waste. Urbanization and industrial development often involve land leveling, destruction of the topsoil layer, and the loss of natural soil structure.

2.1.4. Climate change

Climate change will accelerate in the near future and have profound impacts on soil health, leading to degradation and alterations in the natural properties of soil. According to the Ministry of Natural Resources and Environment (2021), key indicators such as annual average air temperature, extreme temperatures, annual rainfall, extreme rainfall, and extreme weather events (including the number of hot days, heat waves, droughts), as well as rising sea levels, are all expected to increase, posing direct threats to soil health. Among these, increased extreme rainfall and flooding will exacerbate the risk of soil erosion, particularly in hilly and barren areas, washing away the topsoil layer and reducing soil fertility. Rising temperatures will accelerate water evaporation, leading to drought and decreased soil moisture, causing desertification in semi-arid regions or excessively exploited land. Prolonged high temperatures and droughts will also reduce vegetation cover, leading to a decline in organic matter supply to the soil and a deterioration of soil microbial communities, thereby affecting entire food chains and natural processes within the soil. The combination of rising sea levels and upstream activities, particularly in the Mekong Delta

region, will intensify salinization, disrupting soil structure and destroying habitats for soil microorganisms. This disturbance in soil biological cycles will result in reverse osmosis effects and severely impact crops grown on affected land.

2.1.5. Population growth

The increasing population pressure and growing food demand, not only in Vietnam but also from countries importing agricultural products from Vietnam, are causing significant negative impacts on soil health. These effects primarily stem from excessive exploitation of agricultural land to meet food production needs. Specifically, in order to satisfy food demand, the land is continuously utilized without sufficient recovery time, gradually depleting organic matter and nutrients in the soil. This depletion necessitates the use of chemical fertilizers to enhance productivity, which in turn alters soil nutrient balance. Additionally, the heightened use of pesticides arises from the disease risks associated with monoculture farming. These practices lead to the accumulation of toxic substances, a decline in soil microbial activity, and soil pollution from agricultural waste.

2.1.6. Budget cut, streamline the organizational structure

In recent years, the trend of streamlining the state administrative apparatus has been strongly promoted in Vietnam to enhance public management efficiency and reduce budget expenditures. This initiative has been concretized through key Party resolutions, such as Resolution No. 18-NQ/TW (2017), which sets the goal of building a lean, flexible, and efficient political system. The restructuring of organizations and the reduction of administrative units are expected to eliminate bureaucratic inefficiencies, minimize overlapping functions, and facilitate policy formulation and implementation.

However, without accompanying institutional reforms, workforce retraining, and strengthened management tools, streamlining efforts may exert excessive pressure on the existing personnel, particularly in highly specialized sectors such as agriculture, environmental management, and healthcare. Moreover, the merging or reduction of functional units may create challenges in inter-sectoral coordination. Disruptions in task allocation and communication among different levels of governance can result in fragmented and inconsistent policy processes. This is especially concerning for programs requiring multi-sector cooperation—such as the Soil Health Strategy or climate adaptation plans. Without an effective and stable coordination mechanism, implementation may lack cohesion and sustainability.

In addition, streamlining the administrative apparatus necessitates urgent modernization of state management. As workforce reductions take place, the adoption of digital technology, artificial intelligence (AI), geographic information systems (GIS), and data governance becomes essential to maintaining operational efficiency. However,

technological innovation requires significant investment resources, whereas public sector budgets for digital transformation remain constrained.

Despite these challenges, streamlining the apparatus presents numerous positive opportunities for policy reform. First and foremost, it eliminates bureaucratic inefficiencies and redundant functions across administrative units, thereby enhancing clarity and accountability in policy-making processes. By reducing intermediaries, decision-making can be accelerated, improving responsiveness and flexibility—particularly in the face of rapidly evolving challenges such as climate change, food crises, and pandemics. Furthermore, with the adoption of digital transformation, automated workflows and data-driven governance, a lean administrative apparatus can operate more transparently and efficiently, while facilitating policy integration across sectors—an essential factor for inter-sectoral policies such as soil health management, sustainable development, and natural resource protection.

From a public finance perspective, reducing administrative costs can free up substantial resources, creating fiscal space for investments in scientific research, rural infrastructure development, and sustainable livelihoods. Given the increasing demand for investments to achieve sustainable development goals, effective streamlining, if properly implemented, is not merely an organizational optimization measure but a strategic lever for enhancing public policy quality and national governance efficiency.

2.2. International experience in developing action plans for implementing soil health strategies

2.2.1. Australia

Australia's experience in developing and implementing the National Soil Action Plan 2023–2028 serves as a valuable reference for Vietnam in the planning and execution of its National Soil Health Strategy. A key feature of Australia’s model is its intergovernmental and intersectoral collaboration approach, integrating government levels with the scientific community, private sector, and nonprofit organizations, while also fostering international cooperation in soil conservation and restoration.

Firstly, Australia's action plan was established through consensus and coordination among the federal government, state and territorial governments, and agricultural research and development institutions. Through mechanisms such as the National Soil Strategy Implementation Steering Committee and the National Action Plan Working Group, Australia has built a robust intergovernmental collaboration framework, ensuring that soil policies are embedded within broader sustainable development, climate adaptation, and biodiversity protection strategies. Vietnam can learn from this multi-sectoral and multi-level coordination model to enhance domestic policy integration, while also promoting local and stakeholder engagement in the implementation of its soil strategy.

Secondly, Australia actively participates in and supports international cooperative initiatives, such as the Global Soil Partnership (GSP) under the United Nations Food and Agriculture Organization (FAO) and regional programs like the GSP Pacific Soils Partnership. These efforts demonstrate Australia's commitment to knowledge-sharing, technical standardization, and the development of unified soil monitoring systems at both regional and global levels. This is a valuable lesson for Vietnam, which needs to strengthen international integration and actively engage in technical networks to access new technologies and standardize soil health monitoring tools.

Additionally, Australia's experience in developing the Australian National Soil Information System (ANSIS) provides an exemplary model for intersectoral collaboration in data collection, sharing, and utilization. ANSIS not only integrates data from various sources and administrative levels but is also designed to support evidence-based decision-making at both national and local levels. Vietnam can adopt this approach to build an open soil data platform, connect relevant ministries, sectors, and local governments, and link regional data systems, such as those within ASEAN.

Finally, Australia demonstrates a strong connection between soil health protection and sustainable agricultural development, climate adaptation, environmental conservation, and food security goals. The integration of programs focused on human resource training, applied research, community support for sustainable farming practices, and the inclusion of Indigenous knowledge systems has established a multidimensional collaborative network. Vietnam can apply these lessons by promoting public–private partnerships, enhancing local capacities, and integrating education and communication programs to raise awareness and improve soil conservation practices.

2.2.2. EU

The EU Soil Mission—one of the five key scientific missions under the Horizon Europe Program (2021–2027)—provides valuable insights for Vietnam in developing and implementing its National Soil Health Strategy Action Plan. The core objective of the EU Soil Mission is to ensure that at least 75% of Europe's soil is in good health by 2030, with the capacity to provide essential ecosystem services such as food security, carbon storage, flood control, and biodiversity protection. To achieve this goal, the EU has established an open innovation ecosystem, integrating scientific research, practical field experiments, and cross-border policy dialogues, thereby creating a coordinated action framework at both national and regional levels.

One of the key aspects of the EU Soil Mission is the development of a network of "Living Labs" and "Lighthouses"—co-design spaces where researchers, farmers, businesses, and local authorities collaborate to test sustainable soil management models under real-world conditions. As of 2024, more than 20 projects have been funded with a

total budget exceeding 170 million euros to advance regenerative farming practices, soil monitoring technologies, contaminated soil restoration, and fair land governance. Vietnam can learn from this model to promote multi-stakeholder collaboration in applied research and scale up soil restoration practices, particularly in severely degraded areas.

The EU Soil Mission also emphasizes the central role of open data and scientific transparency. Through the EU Soil Observatory, soil-related data is collected, standardized, and made publicly accessible, supporting decision-making at multiple governance levels. Notably, to solidify the legal foundation for the mission, the EU has proposed the Soil Monitoring Law, which aims to establish a unified system of soil health indicators, require regular reporting on land conditions by member states, and promote efficient land reuse and management. This framework ensures transparency, accountability, and integration between research, practice, and policy—key factors that Vietnam must prioritize for the successful implementation of a comprehensive and scientifically grounded soil strategy.

Additionally, the EU Soil Mission highlights public engagement and community education on the vital role of soil in human health, environmental sustainability, and climate resilience. The EU has launched creative communication campaigns, school programs, and local dialogue forums to build a "soil culture"—a new concept that fosters respect and deep understanding of soil as a critical resource within society. Vietnam can adopt this approach to raise public awareness, strengthen social responsibility, and encourage consensus in the implementation of its national soil strategy.

2.2.3. African Union

The experience of African nations in developing and implementing the Fertilizer and Soil Health Action Strategy (2023–2033) offers valuable lessons for Vietnam in formulating its National Soil Health Strategy Action Plan. Notably, one of the key aspects of Africa's strategy is enhancing intergovernmental and regional cooperation, considering it a pillar for policy alignment, resource mobilization, and knowledge sharing to restore and maintain soil health.

Firstly, the establishment and operation of regional cooperation mechanisms such as the African Union (AU), the African Union Commission (AUC), and the African Union Development Agency (AUDA-NEPAD) highlight the importance of a strong intergovernmental coordinating institution in executing soil health improvement actions. These entities not only shape policy directions but also coordinate action programs, allocate financial and technical resources, and ensure synchronized efforts among member states. This model could serve as a reference for Vietnam to explore the creation of a similar cooperation framework with countries in the Mekong sub-region or ASEAN, particularly given the transboundary nature of climate change and soil degradation.

Secondly, African nations have leveraged regional trade agreements, such as the African Continental Free Trade Area (AfCFTA), to boost intra-regional trade in fertilizers and agricultural inputs. This approach has been critical in reducing import costs, increasing fertilizer accessibility, and enhancing investment efficiency in agricultural production. For Vietnam, this lesson underscores the need for proactive participation in regional trade agreements, along with bilateral or multilateral negotiations on tariffs, quality standards, and mutual recognition frameworks for fertilizer and soil improvement products.

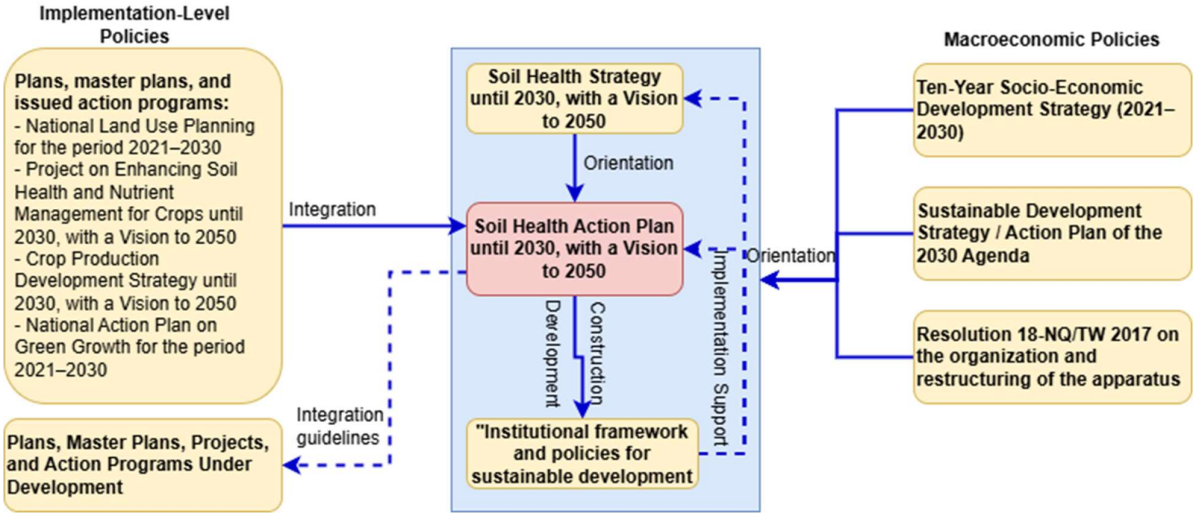
Additionally, initiatives to establish cross-border data networks and information-sharing systems are noteworthy. Africa's digitalized soil, fertilizer, and climate information systems not only support domestic decision-making but also facilitate scientific and technical collaboration among nations. Vietnam can draw insights from this model by developing an open information platform, capable of integrating data from neighboring countries and international organizations to strengthen land-use planning, forecasting, and soil health monitoring.

Finally, Africa's experience in hosting periodic high-level summits on soil health at a continental scale has provided a vital political-technical forum for reviewing progress, assessing challenges, and reinforcing national commitments. Vietnam could consider establishing annual or regular soil health forums with regional participation, development organizations, and academia, ensuring policy momentum and the exchange of practical insights.

2.3. Framework for the action plan to implement Vietnam's soil health strategy by 2030, vision 2050

The Action Plan for the Implementation of Vietnam's National Soil Health Strategy until 2030, with a Vision to 2050, along with strategies, master plans, and socio-economic development plans at various levels and across sectors, constitutes a comprehensive policy framework aimed at promoting sustainable socio-economic development.

Figure 1: The Action Plan for the Implementation of Vietnam's National Soil Health Strategy until 2030, with a Vision to 2050, in relation to existing strategies, master plans, and development plans



Apart from the overall orientations and sectoral development directions outlined in the Vietnam Soil Health Strategy to 2030, with a Vision to 2050, macro-level development strategies and policies serve as the foundation for formulating the Action Plan for Implementing the Soil Health Strategy. These include key documents such as the Party Congress Resolutions, the 10-Year Socio-Economic Development Strategy (2025-2035), the Economic Restructuring Plan for the 2025-2030 period, the Sustainable Development Strategy, and the Action Plan for Implementing the 2030 Agenda, among others. Accordingly, macro objectives such as transforming the growth model, enhancing the quality of growth, and ensuring sustainable development are central themes. The strategic policy documents outline major solution groups related to economic restructuring, coupled with growth model innovation, green economy development, low-waste production, greenhouse gas mitigation, and low-carbon economic approaches. Furthermore, science, technology, and innovation are identified as the new driving forces for development, creating a legal basis for formulating specific tasks and activities for ministries, sectors, and localities during the 2025-2030 period.

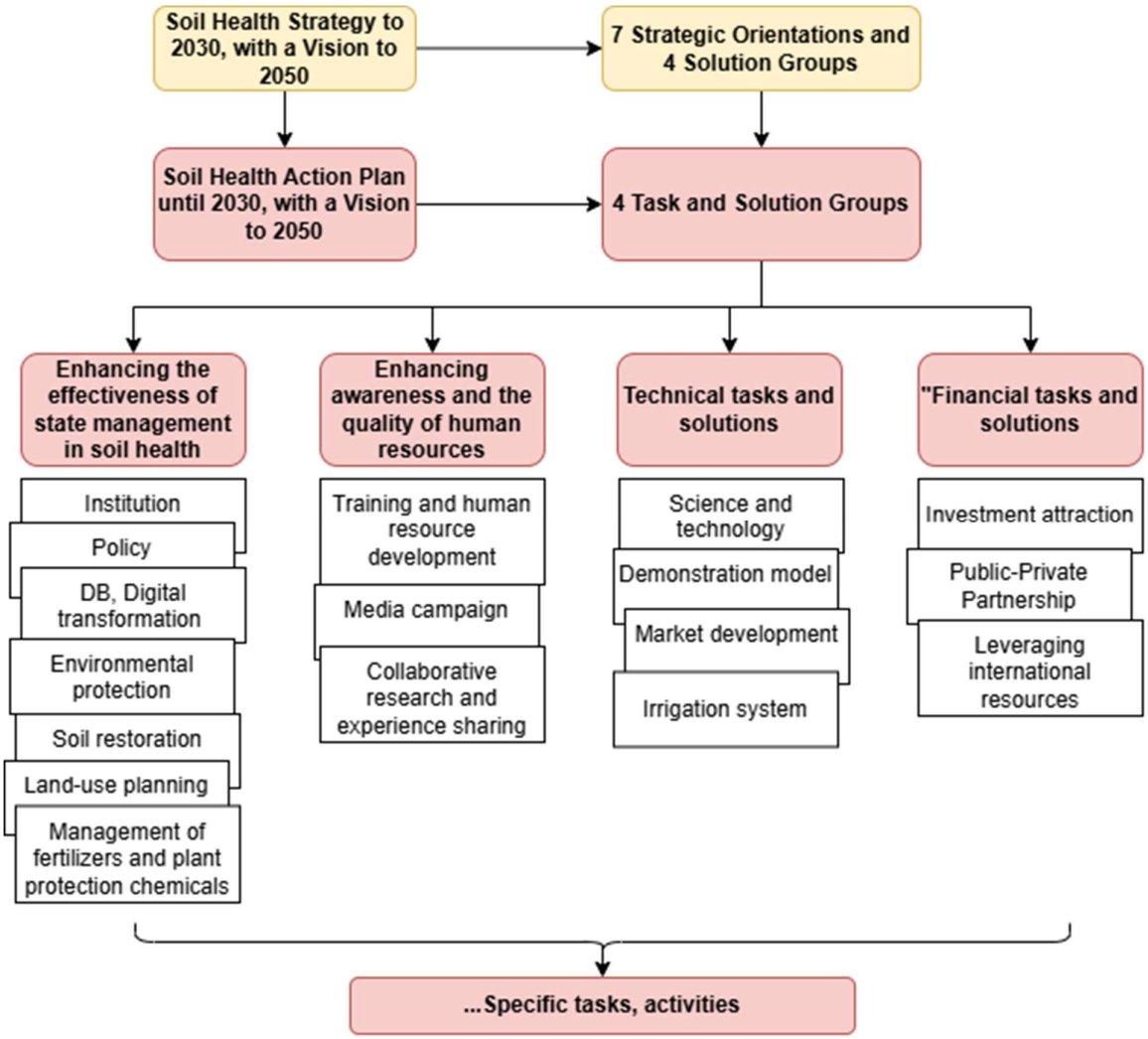
Thus, the Action Plan for Implementing the Vietnam Soil Health Strategy to 2030, with a Vision to 2050 is developed based on comprehensive research and analysis of new contexts, along with updated and systematized planning, strategies, and existing policies. This ensures that the plan reflects an integrated and coherent policy framework, fostering consistency, compatibility, and feasibility in the implementation of solutions. As a result, the Action Plan presents a holistic picture of resource mobilization, thereby creating a foundation for the effective mobilization of resources to achieve socio-economic development goals in harmony with environmental sustainability.

2.4. Framework for the action plan to implement Vietnam's soil health strategy by 2030, vision 2050

Based on a comprehensive approach, the contents of the Action Plan for Implementing the Soil Health Strategy are developed through analyzing the current situation and new domestic and international contexts, inheriting practical lessons, and leveraging innovative solutions in thinking, institutions, and science and technology. Furthermore, the SWOT analysis of tasks and activities is conducted to ensure strategic alignment. In addition, the Action Plan for Implementing the Soil Health Strategy applies a flexible, contextually updated approach, aiming to: (1) Concretize the strategic objectives, orientations, and solutions of the Soil Health Strategy, and (2) Adjust and supplement tasks, themes, and activities accordingly.

The seven strategic orientations and four solution groups outlined in the Vietnam Soil Health Strategy to 2030, with a Vision to 2050 are evaluated and classified based on criteria ensuring coherence and mutual support in implementation. This allows for identifying the core focus of the Action Plan for Implementing the Vietnam Soil Health Strategy. Accordingly, four groups of tasks and solutions serve as the basis for systematically implementing activities and tasks under the Action Plan, including: (1) Tasks and solutions to enhance the effectiveness of state management over soil health, (2) Tasks and solutions to improve awareness and the quality of human resources, (3) Technical tasks and solutions, and (4) Financial tasks and solutions.

Figure 2: Strategic Orientation and Solution Groups of the Action Plan for Implementing the Vietnam Soil Health Strategy



Based on the four main tasks and solutions, seventeen tasks and solutions have been identified. From these, specific activities and tasks are developed based on the following principles:

(1) Ensuring alignment with the Vietnam Soil Health Strategy: The "task and activity groups" and "specific tasks and activities" outlined in the Action Plan for implementing the Vietnam Soil Health Strategy must comprehensively encompass the content and significance of both (i) strategic orientations and solutions and (ii) assigned tasks within the Strategy.

(2) Referencing, integrating, and developing solutions and activities: These must align with the implementation of the Vietnam Soil Health Strategy and be derived from strategies, plans, master plans, programs, and development projects across various sectors for the 2021-2030 period, whether already issued or currently in draft form.

(3) Learning from international experiences and adapting them: Adjustments should be made to fit domestic conditions at each stage to ensure relevance to new contexts while maintaining feasibility in implementation.

(4) Consulting experts and incorporating feedback: Inputs should be gathered from workshops, conferences, and multi-stakeholder consultations at various levels.

(5) Conducting multidimensional analysis and evaluation: This helps determine the appropriateness of complementary and supportive tasks and activities to enhance comprehensiveness and feasibility in implementing the Vietnam Soil Health Strategy. It also aids in identifying relevance through: (i) SWOT analysis: Assessing potential strengths, weaknesses, opportunities, and threats to mitigate weaknesses, address challenges, leverage strengths, and capitalize on opportunities. (ii) Impact analysis: Evaluating the influence of task and activity groups on economic-social development goals, sustainable development (VSDGs), and the existing institutional and policy framework.

Solutions are prioritized based on the following criteria: (i) Feasibility and readiness: Availability of financial, technological, and human resources. (ii) Low regret and co-benefits: Synergies between greenhouse gas emission reduction, climate change adaptation, and socio-economic development. (iii) Potential for scalability and broad impact.

3. CONTENTS OF THE ACTION PLAN FOR IMPLEMENTING THE VIETNAM SOIL HEALTH STRATEGY TO 2030, WITH A VISION TO 2050

3.1. VIEWPOINTS AND OBJECTIVES

3.1.1. Viewpoints

- Protecting and restoring soil health is the foundation of a sustainable ecosystem, ensuring responsible, efficient, and sustainable agricultural development in terms of economic, social, and environmental aspects. This approach aligns with ecological, organic, and circular principles, promotes low-carbon emissions, is environmentally friendly, and enhances adaptation to climate change.
- Soil health protection is an integral part of environmental conservation, thereby safeguarding public health. It must be prioritized in development decisions and should not be compromised for short-term economic benefits.
- Safeguarding soil health is the responsibility of the entire political system, the general public, and every individual land user. Strengthening the mobilization of societal resources combined with increased budget allocations is essential for the protection and restoration of soil health.
- The action plan should be implemented in a way that integrates various resources and utilizes mechanisms and policies that create incentives to attract both domestic and international investment sources.

3.1.2. Objectives

a. General objectives

- Protecting, restoring, and enhancing soil health is essential to safeguarding public health, improving agricultural productivity and yields, strengthening climate change adaptation capacity, and maintaining ecological balance. These efforts contribute to ensuring national food security, fostering economic growth, improving and restoring environmental quality, and preventing biodiversity loss.

b. Detail objectives

- Protecting and improving soil quality involves reducing the proportion of degraded agricultural land to below 10%, ensuring that the organic matter content in soil meets the minimum standard of 3-5% in major agricultural production areas, and restoring agricultural land contaminated by chemicals or heavy metals.
- Developing organic and low-emission agricultural cultivation systems should be achieved on at least 2% of the total agricultural land area.

- Develop a set of indicators for soil health assessment and establish methods for evaluating soil health. Establishing a national digital database on soil quality and health should be harmonized with international soil health databases. Pilot projects should be completed and the deployment of intelligent soil health monitoring systems should begin, utilizing direct remote sensing imagery and AI-based image interpretation tools, as well as indirect monitoring through periodic quality assessments of agricultural products.
- Provide knowledge and tools enabling individuals and communities to independently assess and recognize soil health. Developing and refining rational cultivation procedures must be linked with efficient fertilizer use to reduce nutrient loss for key crops in major ecological zones, thereby protecting and enhancing soil health. These procedures should be published on digital platforms to ensure accessibility for farmers.
- Raising awareness among government officials and the public about soil health is essential. Maintaining a stable workforce and improving the quality of human resources involved in soil health protection and restoration should be prioritized.

3.2. TASKS AND ACTIVITIES

3.2.1. Tasks and solutions to enhance the effectiveness of state management of soil health

a. Improving institutional frameworks for the implementation of the Soil health Strategy, ensuring streamlined administrative structures

- Establishing the National Steering Committee to coordinate the implementation of the Soil Health Strategy (hereinafter referred to as the Steering Committee). The supporting unit of the Steering Committee operates on a part-time basis under the Ministry of Agriculture and Environment, with its activities organized and overseen by the Minister of Agriculture and Environment.
- Developing and issuing operational regulations along with the annual work program of the Steering Committee to ensure effective coordination.
- Developing, guiding, and implementing monitoring, evaluation, and reporting mechanisms for the implementation of the Soil Health Strategy. This includes establishing procedures for monitoring, evaluation, and reporting, as well as creating mechanisms to engage stakeholders in providing information and submitting reports for assessing strategy implementation. Monitoring and evaluation must be conducted across industries, sectors, and localities.
- Assessing the current investment landscape and available financial resources, while mobilizing financial support for the execution of the Soil Health Strategy.

- Preparing annual reports, mid-term review reports, and a comprehensive evaluation report in 2030, to assess the implementation progress of the Strategy and submit findings to the Prime Minister.
- Conducting research to propose a government agency model for soil health management, ensuring alignment with emerging conditions and streamlining administrative structures, particularly at grassroots levels such as communes, wards, and special districts.
- Strengthening and consolidating state management agencies responsible for environmental protection and land management, from the central to the local level, to enhance governance effectiveness.
- Conducting a comprehensive review to clarify responsibilities, resolve overlaps, eliminate bottlenecks, and address fragmented delegation in state management regarding soil health.
- Enhancing community oversight through active participation of the Vietnam Fatherland Front, various organizations, individuals, and media agencies in monitoring soil health protection. Modern information channels such as digital platforms, social media, and dedicated hotlines must be leveraged to improve accessibility and responsiveness.

b. Refining policies to align with the Soil Health Strategy

- Guiding pilot implementation and the rollout of the action plan for the execution of the Soil Health Strategy at all levels.
- Providing guidance on integrating the implementation aspects of the Soil Health Strategy into the system of strategies, master plans, and socio-economic development plans across all levels and sectors that are currently being developed.
- Updating, supplementing, and refining the system of strategies, master plans, and socio-economic development plans at all levels and sectors, including amendments to existing legal regulations and policies.

c. Developing a digitized soil health database and tools for its utilization in soil health management

- Conduct research to develop a set of indicators and a standardized scale for assessing soil health. Formulate and promulgate regulations, standards, and technical guidelines for the analysis of soil health indicators.
- Developing a national soil health database, including quantitative, qualitative, and spatial data (maps) that are standardized, updated, and comprehensive with multidimensional information. This includes physical, chemical, and biological indicators such as fertility, pH levels, organic matter content, microbial composition, pollution status, and contamination risks. Data should be sourced from soil surveys,

scientific research, monitoring networks in key ecological regions, and remote sensing image interpretation. The database must be standardized by applying international data collection, classification, and management standards to ensure consistency and ease of sharing with partner countries worldwide. The integration of Blockchain technology in soil health data management should be encouraged to ensure transparency and accuracy.

- Strengthening and refining the national environmental monitoring system based on the master plan for the environmental and resource monitoring network. Investments must be made to modernize infrastructure and equipment progressively, enhancing the capacity for environmental monitoring and analysis across sectors and administrative levels. Accurate, timely, and comprehensive environmental information should be provided to support socio-economic development and regulatory enforcement related to environmental protection.
- Integrating soil health data into decision-support systems for government management agencies through digital applications in land management. This includes the use of AI and machine learning to analyze soil health data, predict degradation trends, assess risks related to soil deterioration, chemical pollution, and heavy metal contamination.

d. Updating, revising, and enhancing the enforceability of the Environmental Protection Law

- Updating the Environmental Protection Law and related regulations to incorporate soil health assessment as a mandatory component of Environmental Impact Assessments (EIA) for projects posing risks to soil. The EIA must include soil health indicators such as organic matter content, pH levels, heavy metal contamination, fertility, and microbial activity. Projects must provide short-term, medium-term (5–10 years), and long-term (over 20 years) impact scenarios on soil. Life Cycle Assessment (LCA) methodologies should be applied to comprehensively evaluate soil impacts throughout the project duration. Additionally, projects must establish soil health monitoring plans post-implementation, with a minimum inspection frequency of once per year, and enforce post-project evaluations to assess compliance with soil health commitments outlined in the EIA.
- Conducting research to propose a government agency model for environmental management that aligns with current conditions, ensuring streamlined administrative structures while accommodating trends in openness and international integration.
- Proposing policies for human resource development by enhancing professional training, management skills, technical expertise, and foreign language proficiency to ensure that the workforce meets environmental protection requirements.

e. Enhancing water quality management

- Updating and expanding national wastewater quality standards, particularly for highly polluting industries such as manufacturing, food processing, and livestock farming.
- Researching and proposing regulatory mechanisms and penalties for illegal or non-compliant wastewater discharge, including stringent sanctions, with criminal liability in cases of severe violations.
- Installing automated wastewater monitoring systems at large-scale production facilities, industrial zones, and wastewater treatment plants. Monitoring data should be connected to government agencies for real-time oversight and rapid violation detection.
- Developing and upgrading wastewater treatment systems, including the construction of centralized treatment stations along major river sections with high discharge concentrations. Advanced wastewater treatment technologies, such as biological filtration, nanotechnology, and microbial treatment, should be encouraged to ensure wastewater meets environmental standards before discharge. Investments must be made to modernize existing treatment facilities to improve efficiency, comply with the latest environmental standards, and prevent residual chemical pollution that could harm soil health.
- Regularly publishing water quality data for rivers, canals, and irrigation systems to inform farmers and provide recommendations for the safe use of water in agriculture.

f. Rehabilitation and restoration of degraded and polluted soil

- Conducting investigations, assessments, and classifications of soil pollution, as well as developing and implementing plans for remediation, restoration, and rehabilitation of contaminated areas. This includes sites with residual dioxin, petroleum contamination from wartime activities, and persistent pesticide residues.
- Developing proposals and programs for soil treatment, restoration, and rehabilitation in areas severely or critically polluted. Restoration efforts must also focus on rehabilitating degraded natural ecosystems.

g. Review, adjust planning, and strengthen the monitoring of plan implementation

- Continuing to review and adjust planning and crop structure transformation strategies, ensuring alignment with regional advantages, market demand, and climate adaptation. Developing large-scale, concentrated agricultural production areas and organizing production chains for key national products while promoting clean and organic agriculture. Clearly defining functional zones (residential areas, industrial zones, agricultural zones, and green spaces) and establishing specific boundaries. Engaging local communities and businesses in the planning process to prevent conflicts of interest and address issues promptly.

- Enhancing the capacity for land use planning enforcement to prevent agricultural areas from being isolated or affected by unregulated construction and development.
- Improving land policies based on a market-oriented land use rights system, treating land use rights as property rights with principles of smooth operation, low transaction costs, and enabling farmers to expand production and utilize agricultural land flexibly for higher income. Land users should be able to engage in transactions such as transfers, leases, capital contributions, or mortgages within a unified market. Supporting efficient farmers in accumulating agricultural land for farm development. Assisting cooperatives and cooperative alliances in purchasing, leasing, or receiving capital contributions in agricultural land from farming households. Facilitating labor migration out of agriculture to enable land consolidation and more effective land utilization.
- Studying policies to progressively expand the scope of entities eligible to receive agricultural land use rights transfers, ensuring that organizations and individuals with adequate financial capacity and technological expertise are genuinely investing in agricultural production according to planned development. Ensuring transparency in land-use planning processes by publicly disclosing production area plans for key agricultural commodities. Reviewing the structure of three forest categories (production forests, protective forests, and special-use forests) to ensure alignment with actual conditions.
- Researching and reforming the operations of the Land Development Center, laying the foundation for establishing a "Land Bank" to support transactions involving land use rights transfers and enhance property rights related to agricultural land.

h. Strengthening the Management of Fertilizers and Plant Protection Chemicals

- Establishing and refining national standards and regulations for soil quality, fertilizers, and pesticides. Issuing national soil quality standards for agricultural, forestry, industrial, and urban land, tailored to the characteristics of each region.
- Setting safety thresholds for heavy metal concentrations, chemical residues, and organic matter levels in soil.
- Defining fertilizer quality standards and updating the approved pesticide list to ensure that only safe and environmentally friendly products are available on the market.
- Aligning national regulations with international standards to meet global trade requirements.
- Enhancing market monitoring efforts, conducting regular interagency inspections of production, import, distribution, and use of fertilizers and pesticides to promptly detect unauthorized products, counterfeits, imitations, and substandard goods...

3.2.2. Tasks and solutions for enhancing awareness and human resource quality

a. Human resource development, labor demand forecasting, and training programs for soil health capacity building

- Assessing the current human resource situation related to soil health management in terms of quantity, quality, and professional structure. Identifying job positions, necessary skills, and competencies required for each phase of the Soil Health Strategy implementation. Analyzing industry development trends, the impact of policies and technology on labor demand, and developing short-, medium-, and long-term human resource forecasting models.
- Reviewing existing policies on training and utilization of human resources in soil health management, referring to international experiences in policies for encouraging and developing specialized personnel in soil health management. Proposing policies to support training, recruitment, incentives, and retention of experts and technical personnel. Integrating human resource development content into relevant national and local programs and plans.
- Enhancing financial support and improving working conditions for educators in soil health, particularly in disadvantaged areas. Establishing research and teaching funds to encourage faculty participation in this field.
- Developing policies that encourage educational institutions to introduce new academic programs related to soil health.
- Providing full or partial scholarships for students majoring in soil health, especially those committed to working in local communities after graduation.
- Collaborating with businesses and international organizations to provide internship and job opportunities for soil health graduates. Encouraging partnerships between universities and employers, such as organic fertilizer manufacturers and companies investing in ecological and organic agriculture, to strengthen workforce readiness.
- Designing and organizing periodic training programs on soil health management, prioritizing content such as soil degradation prevention, pollution reduction, and fertility protection. Utilizing a combination of online and in-person training to reach diverse audiences at different levels.
- Conducting short-term and long-term training courses to enhance technical knowledge for local agricultural extension officers, equipping them with soil health expertise to further educate and advise farmers.
- Integrating soil health training sessions into ongoing programs and projects, educating farmers on soil conservation and restoration techniques as well as the role of soil health in crop development.
- Developing demonstration models that showcase effective soil health management practices, allowing farmers to observe, learn, and apply these techniques.

b. Develop and implement a national soil health communication campaign, Integrate soil health messaging into communication plans of sectors fields and localities

- Implementing public awareness campaigns through television, newspapers, social media, and community workshops to enhance understanding of the importance of soil.
- Promoting advocacy efforts and raising awareness, fostering green lifestyles and sustainable consumption as a foundation for developing markets for eco-friendly products that support soil health.
- Communicating sustainable, ecological agricultural models, creating widespread influence to attract and encourage organizations and individuals to adopt and expand these practices.
- Integrating fundamental soil health concepts into educational curricula at all levels, from primary school to university.
- Collaborating with social organizations and local groups to promote and encourage public participation in soil health protection efforts.

c. Collaborate on research and experience sharing

- Collaborating with international organizations such as UNEP, FAO, and IRRI to invite experts to participate in training programs, capacity-building workshops, and specialized seminars aimed at enhancing the knowledge and skills of government agencies, research institutes, and universities.
- Establishing a networked environment for researchers and experts, particularly those from Southeast Asia and countries with agricultural conditions similar to Vietnam, to facilitate knowledge exchange and collaboration.

3.2.3. Technical tasks and activities

a. Strengthen soil health protection and restoration through investments in science, technology, and innovation

- Establish a "Center for Soil Health Innovation Research" that brings together leading scientists in soil science and pedology to conduct research on technologies for assessing, protecting, and restoring soil health.
- Improving mechanisms to encourage the transfer of advanced, clean, and environmentally friendly technologies, as well as refining technical standards to limit the adoption and gradual phase-out of outdated and environmentally harmful technologies and projects affecting soil health.
- Removing institutional and policy barriers, especially financial mechanisms, to promote research, application, and transfer of advanced, clean, and environmentally friendly technologies. Regularly updating regulatory frameworks and standards

while strengthening technology assessment to prevent and eliminate obsolete technologies and equipment from being introduced into Vietnam.

- Increasing public investment in research, application, and technology transfer in agriculture, aiming to allocate 5% of total agricultural investment. Prioritizing synchronized investment in technical infrastructure to support scientific research, technology application, and human resource development. Investing in key research institutes and universities to elevate their capabilities to regional standards. Establishing policies to encourage private sector involvement and mobilize all lawful resources for agricultural science and technology investments, including venture capital funds for small and medium-sized enterprises, and technology application funds for farmers and farms.
- Enhancing the legal framework for the agricultural science and technology market, ensuring intellectual property rights enforcement aligns with real-world production requirements and international regulations.
- Conducting research, pilot programs, and scaling up innovative scientific and technological applications, including advanced, cutting-edge, and clean technologies for agricultural production. Developing and applying scientific advancements to improve productivity, value, quality, adaptability, and efficiency while minimizing losses. Promoting smart agriculture, precision farming, and digital technology applications in agriculture...

b. Review, evaluate, and scale up technical solutions to maintain and improve soil health, develop input products to support soil-health-friendly agricultural practices

- Develop simple toolkits—both direct-use and online—leveraging advanced technologies such as AI for rapid soil health assessment, and provide these tools to farmers and agricultural cooperatives.
- Reviewing and compiling environmentally friendly farming models that have been applied domestically and internationally, including practices/technologies such as the Nature-based Solutions, Agroforestry, Biochar, System of Rice Intensification (SRI), intercropping maize with beans (IMB), cassava with peanuts and beans (ICB), integrated coffee cultivation (ICoM), and farming under VietGAP standards adapted to climate change.
- Conducting scientific research to evaluate the effectiveness of various farming techniques, such as crop rotation, intercropping, soil cover methods, minimum tillage, organic and bio-fertilizer use, and integrated pest management, tailored to different crops and ecological regions.
- Organizing field trials in various ecological zones to verify suitability and scalability of farming practices.

- Developing demonstration models and pilot sites in local communities to provide training for farmers and technical staff.
- Compiling technical documents, good agricultural practice (GAP) guidelines, and specific implementation procedures for each farming technique.
- Supporting the adoption of new technical advancements, including the use of pest-resistant crop varieties, biological pesticides, bio-based plant protection products, integrated pest management (IPM), and integrated crop management (ICM).
- Collaborating with local authorities and businesses to scale up effective farming models, ensuring integration with sustainable agricultural value chains. Researching and reforming agricultural extension systems to create a streamlined, efficient, and adaptable framework suited to different production types and regions. Enhancing coordination between state-led and enterprise-led agricultural extension programs, developing digital and community-based extension services, and decentralizing extension activities to farmer organizations, cooperatives, and enterprises. Strengthening collaboration between training, research, and extension efforts.
- Monitoring, evaluating, and adjusting farming models to ensure long-term effectiveness and sustainability based on real-world conditions.

c. Develop production and markets for soil-health-friendly agricultural products

- Allocating 100% of the state budget for fundamental investigations, topographic surveys, and soil, water, and air sample analyses to identify concentrated production zones for agroforestry and aquaculture projects applying VietGAP, as approved by competent authorities.
- Supporting the development of biotechnology enterprises producing agricultural products at an industrial scale, including organic fertilizers, microbial organic fertilizers, biological pesticides, environmental treatment bio-products, and animal feed, to promote safe and organic agriculture.
- Researching and developing high-quality organic fertilizers that act quickly, are compact and easy to use, and are environmentally friendly. Facilitating the recognition and circulation of organic fertilizers without requiring trials.
- Allocating state budget investments for infrastructure development and renovation, including transportation roads, irrigation systems, pumping stations, low-voltage electricity networks, waste treatment systems, and water supply and drainage systems in concentrated production zones to meet VietGAP technical standards. Funding is provided according to the Investment and Construction Management Regulations.
- Conducting market research to determine demand for agricultural products produced in ways that support soil health.
- Developing branding strategies for agricultural products cultivated using soil health-friendly practices, creating competitive advantages in the market.

- Connecting producers with businesses, supermarkets, and clean food stores to facilitate product distribution.
- Supporting producers in obtaining certifications for quality assurance, food safety, and organic production...

d. Develop infrastructure, especially irrigation systems, to meet water demand for soil-health-friendly agricultural practices

- Upgrading and constructing new canal and irrigation systems to ensure adequate water supply for crops while improving drainage to prevent waterlogging.
- Building water storage infrastructure, including reservoirs, ponds, and dams, to retain water for irrigation during dry seasons.
- Completing the system of sluices, dams, and enclosed dikes to prevent salinity intrusion in specialized agricultural zones for rice, vegetables, and fruit cultivation in coastal areas.
- Issuing policies to support the adoption of advanced irrigation technologies, such as drip irrigation and sprinkler irrigation, to optimize water use efficiency and conservation.

3.2.4. Financial Tasks and Solutions

a. Policies to Encourage Participation in Sustainable Land Use Models and Land Restoration Initiatives

- Researching the expansion and active implementation of incentive policies, including tax benefits, preferential loans, and technical support for organizations and individuals engaged in sustainable land use models and land restoration projects. Incentives should also target businesses involved in producing soil health-friendly agricultural inputs such as organic fertilizers and biological pesticides.
- Supporting enterprises that manufacture agricultural inputs compatible with soil health, such as organic fertilizers and biological pesticides, through tariff reductions and land-use incentives.

b. Development of Policies and Tools for Resource Mobilization in Health Protection, with a Focus on Public-Private Partnership (PPP) Models and Agricultural Insurance

- Researching and developing a public-private partnership (PPP) model for land restoration projects, establishing appropriate benefit-sharing mechanisms to attract private sector participation.
- Conducting pilot studies and formulating mechanisms to allow the private sector to sustainably utilize restored land resources, such as developing eco-tourism or generating carbon credits through afforestation and reforestation initiatives.

- Actively implementing Decree 58/2018/ND-CP on agricultural insurance to mitigate risks for farmers adopting soil health-friendly farming practices.
- Researching ways to increase insurance premium support for farms that implement ecological and organic farming methods.

c. Leveraging International Resources

- Developing strategies to maximize international support for soil health protection and restoration efforts in Vietnam.
- Strengthening and advocating for enhanced cooperation with bilateral and multilateral partners, international financial institutions, and global organizations to mobilize resources (financial, technical, technological, and capacity-building) in alignment with the 26th United Nations Climate Change Conference (COP26), sustainable development goals, and green transition initiatives.
- Preparing well-defined project proposals and implementation plans that align with the Sustainable Development Goals (SDGs), including land resource conservation, greenhouse gas emissions reduction, and livelihood improvement for local communities. Priority should be given to degraded lands and areas with high biodiversity value to attract international attention and funding.
- Accelerating administrative reforms to facilitate international funding reception through streamlined and harmonized procedures aligned with global practices.
- Providing and disseminating transparent information about the implementation of soil health protection and sustainable development initiatives to the international community.

3.3. IMPLEMENTATION

3.3.1. Implementation resources

Resources for implementing the programs and tasks of the Action Plan include:

a. Domestic sources

- State budget: Including central and local budgets, as well as funds integrated into recurring expenditure tasks within the allocated state budget estimates.
- Commercial loans and private investment: Including credit financing, corporate bonds, and foreign direct investment (FDI).
- Community and other social funds: Mobilized through public-private partnerships for projects, socialized investment, and domestic funds aimed at achieving green growth, climate change adaptation, and sustainable development.

b. Foreign sources

- Official Development Assistance (ODA) funds.

- Financial support and concessional loans for green growth, climate change adaptation, and sustainable development.
- Mobilized funding support from international organizations, development partners, funds, and global financial institutions.

3.3.2. Task allocation

a) The National Steering Committee for Soil Health, chaired by the Minister of Agriculture and Environment, includes members from relevant departments, agencies, and institutes under the Ministry of Agriculture and Environment, as well as representatives from other ministries. The Steering Committee directs the implementation of the tasks outlined in the Action Plan in accordance with its operational regulations, which are issued alongside the Action Plan.

b) The Ministry of Agriculture and Environment serves as the central coordinating body for soil health management, responsible for leading and collaborating with relevant ministries, sectors, and provincial and municipal People's Committees to execute the Action Plan for implementing Vietnam's Soil Health Strategy. The Ministry oversees guidance, monitoring, evaluation, inspection, and reporting on implementation progress. Additionally, it works with the Ministry of Finance and other relevant ministries and sectors to identify and allocate domestic financial resources, coordinate international funding sources, and develop policy mechanisms to advance the implementation of the Soil Health Strategy in Vietnam.

c) Departments and agencies under the Ministry of Agriculture and Environment, as well as relevant ministries, provincial and municipal People's Committees, the State Bank of Vietnam, the Central Committee of the Vietnam Fatherland Front, the Vietnam Farmers' Union, political and social organizations, industry associations, and professional associations, are responsible for leading and coordinating activities specified in Annex I. These entities proactively collaborate with the Ministry of Agriculture and Environment to formulate and implement tasks within the Action Plan according to their functions, mandates, and management areas. They also integrate content related to food system transformation into development plans and strategies to ensure proper budgeting for the Action Plan in compliance with legal regulations. Furthermore, they participate in monitoring, evaluating, and periodically reporting implementation results to the Ministry of Agriculture and Environment for consolidation. Close coordination with the Ministry of Agriculture and Environment and other relevant central and local agencies is required to address issues arising during the Action Plan’s execution.

APPENDIX: LIST OF TAKS AND ACTIVITIES TO IMPLEMENT ACTION PLAN FOR IMPLEMENTING THE VIETNAM SOIL HEALTH STRATEGY TO 2030, WITH A VISION TO 2050

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
1	**Tasks and activities to enhance the effectiveness of state management of soil health**					
1.1	***Improving institutional frameworks for the implementation of the Soil Health Strategy, ensuring streamlined administrative structures***					
1.1.1	Establishing the National Steering Committee to coordinate the implementation of the Soil Health Strategy (hereinafter referred to as the Steering Committee). The supporting unit of the Steering Committee operates on a part-time basis under the Ministry of Agriculture and Environment, with its activities organized and overseen by the Minister of Agriculture and Environment. **(High)**	2025	Ministry of Agriculture and Environment	Ministries, ministerial-level agencies, and other Government agencies; People's Committees of provinces/cities; Vietnam Fatherland Front and its member organizations; Related enterprises and commodity associations; Research institutes, Universities.	I, II	Decisions of the Prime Minister: (1) Establishment of the National Steering Committee on Green Growth; (2) Operational regulations of the Steering Committee annual workplan.
1.1.2	Developing and issuing operational regulations along with the annual work program of the Steering Committee to ensure effective coordination. **(High)**	2025				
1.1.3	Developing, guiding, and implementing monitoring, evaluation, and reporting mechanisms for the implementation of the Soil Health Strategy. This includes establishing procedures for monitoring, evaluation, and reporting, as well as creating mechanisms to engage stakeholders in providing information and submitting reports for assessing strategy implementation. Monitoring and evaluation must be conducted across industries, sectors, and localities. **(High)**	2025	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Decisions of the Minister of Agriculture and Environment on: - The monitoring and evaluation system for the National Soil Health Strategy; Reporting regulations for the implementation of the Strategy and the Action Plan. - Consolidated report by the Ministry of Agriculture and Environment submitted to the Prime Minister.
1.1.4	Assessing the current investment landscape and available financial resources, while mobilizing financial support for the execution of the Soil Health Strategy.	2025 - 2030				

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
1.1.5	Preparing annual reports, mid-term review reports, and a comprehensive evaluation report in 2030, to assess the implementation progress of the Strategy and submit findings to the Prime Minister.	2025 - 2030				
1.1.6	Conducting research to propose a government agency model for soil health management, ensuring alignment with emerging conditions and streamlining administrative structures, particularly at grassroots levels such as communes, wards, and special districts. **(High)**	2025 - 2026	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research report proposing an institutional model for state management of soil health.
1.1.7	Strengthening and consolidating state management agencies responsible for environmental protection and land management, from the central to the local level, to enhance governance effectiveness. **(High)**	2025 - 2026	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Decisions of the Minister of Agriculture and Environment on the assignment of functions and tasks of local state management agencies
1.1.8	Conducting a comprehensive review to clarify responsibilities, resolve overlaps, eliminate bottlenecks, and address fragmented delegation in state management regarding soil health.	2025 - 2026	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Ministerial decisions on the assignment of functions and tasks; Guiding circulars for implementation.
1.1.9	Enhancing community oversight through active participation of the Vietnam Fatherland Front, various organizations, individuals, and media agencies in monitoring soil health protection. Modern information channels such as digital platforms, social media, and dedicated hotlines must be leveraged to improve accessibility and responsiveness.	2025 - 2026	Vietnam Fatherland Front	Organizations, individuals, and media agencies	I, II, IV	Regulations on the monitoring and evaluation system and mechanisms of sectors and localities. Periodic reports from ministries, sectors, and localities.
1.2	***Refining policies to align with the Soil Health Strategy***					

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
1.2.1	Guiding pilot implementation and the rollout of the action plan for the execution of the Soil Health Strategy at all levels. **(High)**	2025 - 2026	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Decisions approving action plans for the implementation of the Soil Health Strategy at all levels.
1.2.2	Providing guidance on integrating the implementation aspects of the Soil Health Strategy into the system of strategies, master plans, and socio-economic development plans across all levels and sectors that are currently being developed. **(High)**	2025 - 2026	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Guidance documents on the integration of the Soil Health Strategy Action Plan into the system of socio-economic development strategies, master plans, and plans of all levels and sectors.
1.2.3	Updating, supplementing, and refining the system of strategies, master plans, and socio-economic development plans at all levels and sectors, including amendments to existing legal regulations and policies. **(High)**	2025 - 2026	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Circulars and decisions on updating, supplementing, and finalizing the system of strategies, master plans, plans, legal normative documents, and current policies.
1.3	***Developing a digitized soil health database and tools for its utilization in soil health management***					
1.3.1	Conduct research to develop a set of indicators and a standardized scale for assessing soil health. Formulate and promulgate regulations, standards, and technical guidelines for the analysis of soil health indicators. **(High)**	2025 - 2027	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	Soil Health Indicator Set and Assessment Scale. Formulation and promulgation of regulations, standards, and technical guidelines for analyzing soil health indicators.

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
1.3.2	Developing a national soil health database, including quantitative, qualitative, and spatial data (maps) that are standardized, updated, and comprehensive with multidimensional information. **(High)**	2025 - 2030	Ministry of Agriculture and Environment (Department of Digital Transformation)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	National Soil Health Database: explanatory notes on indicators and guidelines for data standardization
1.3.3	Strengthening and refining the national environmental monitoring system based on the master plan for the environmental and resource monitoring network.	2025 - 2030	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Updated Master Plan for the National Environmental Monitoring System; national monitoring data
1.3.4	Integrating soil health data into decision-support systems for government management agencies through digital applications in land management.	2025 - 2030	Ministry of Agriculture and Environment (Department of Digital Transformation)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	Toolkit and guidelines for the use of the national soil health management database
1.4	***Updating, revising, and enhancing the enforceability of the Environmental Protection Law***					
1.4.1	Updating the Environmental Protection Law and related regulations to incorporate soil health assessment as a mandatory component of Environmental Impact Assessments (EIA) for projects posing risks to soil.	2025 - 2030	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Revised Environmental Protection Law; relevant decrees, circulars, and decisions

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
1.4.2	Conducting research to propose a government agency model for environmental management that aligns with current conditions, ensuring streamlined administrative structures while accommodating trends in openness and international integration.	2025 - 2026	Ministry of Agriculture and Environment (Institute of Agricultural and Environmental Strategies and Policies)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research reports
1.4.3	Proposing policies for human resource development by enhancing professional training, management skills, technical expertise, and foreign language proficiency to ensure that the workforce meets environmental protection requirements.	2025 - 2026	Ministry of Agriculture and Environment (Institute of Agricultural and Environmental Strategies and Policies)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Policy briefs
1.5	***Enhancing water quality management***					
1.5.1	Updating and expanding national wastewater quality standards, particularly for highly polluting industries such as manufacturing, food processing, and livestock farming.	2025 - 2028	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	National Wastewater Quality Standards
1.5.2	Researching and proposing regulatory mechanisms and penalties for illegal or non-compliant wastewater discharge, including stringent sanctions, with criminal liability in cases of severe violations.	2025 - 2028	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Circulars, decisions, legal documents, and policies on wastewater discharge

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
1.5.3	Installing automated wastewater monitoring systems at large-scale production facilities, industrial zones, and wastewater treatment plants. Monitoring data should be connected to government agencies for real-time oversight and rapid violation detection.	2025 - 2028	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Automatic wastewater monitoring system
1.5.4	Developing and upgrading wastewater treatment systems, including the construction of centralized treatment stations along major river sections with high discharge concentrations. Advanced wastewater treatment technologies, such as biological filtration, nanotechnology, and microbial treatment, should be encouraged to ensure wastewater meets environmental standards before discharge. Investments must be made to modernize existing treatment facilities to improve efficiency, comply with the latest environmental standards, and prevent residual chemical pollution that could harm soil health.	2025 - 2028	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Project on the development and upgrading of wastewater treatment systems
1.5.5	Regularly publishing water quality data for rivers, canals, and irrigation systems to inform farmers and provide recommendations for the safe use of water in agriculture.	2025 - 2030	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Information portal for periodic data on river, canal, and irrigation system water
1.6	***Rehabilitation and restoration of degraded and polluted soil***					
1.6.1	Conducting investigations, assessments, and classifications of soil pollution, as well as developing and implementing plans for remediation, restoration, and rehabilitation of contaminated areas. This includes sites with residual dioxin, petroleum	2025 -2026	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related	I, II	Assessment report on classification of soil environmental pollution

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
	contamination from wartime activities, and persistent pesticide residues. **(High)**			agencies and organizations.		
1.6.2	Developing proposals and programs for soil treatment, restoration, and rehabilitation in areas severely or critically polluted. Restoration efforts must also focus on rehabilitating degraded natural ecosystems.	2026-2030	Ministry of Agriculture and Environment (Department of Environment)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	Projects and programs for the treatment, rehabilitation, and restoration of soil environments in severely and critically polluted areas
1.7	***Review, adjust planning, and strengthen the monitoring of plan implementation***					
1.7.1	Continuing to review and adjust planning and crop structure transformation strategies, ensuring alignment with regional advantages, market demand, and climate adaptation. Developing large-scale, concentrated agricultural production areas and organizing production chains for key national products while promoting clean and organic agriculture. Clearly defining functional zones (residential areas, industrial zones, agricultural zones, and green spaces) and establishing specific boundaries. Engaging local communities and businesses in the planning process to prevent conflicts of interest and address issues promptly. **(High)**	2025 -2026	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Report reviewing and adjusting planning and crop structure transition strategies by region, in response to climate change; Planning for concentrated agricultural production zones;
1.7.2	Enhancing the capacity for land use planning enforcement to prevent agricultural areas from being isolated or affected by unregulated construction and development.	2026-2030	Ministry of Agriculture and Environment (Department of Land management)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related	I, II, III, IV	Plan to enhance the capacity for land use planning enforcement; Report on the current situation assessment and solutions to prevent

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
				agencies and organizations.		unplanned development in agricultural areas.
1.7.3	Improving land policies based on a market-oriented land use rights system, treating land use rights as property rights with principles of smooth operation, low transaction costs, and enabling farmers to expand production and utilize agricultural land flexibly for higher income.	2025 -2026	Ministry of Agriculture and Environment (Department of Land management)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research Report. Decisions and Circulars on Guidelines for Land Use as Property Rights, ensuring smooth operation, low transaction costs, and enabling farmers to expand production and flexibly utilize agricultural land for higher income.
1.7.4	Studying policies to progressively expand the scope of entities eligible to receive agricultural land use rights transfers, ensuring that organizations and individuals with adequate financial capacity and technological expertise are genuinely investing in agricultural production according to planned development.	2025 -2026	Ministry of Agriculture and Environment (Department of Land management)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research Report. Decisions and circulars on land-use right transfer
1.7.5	Researching and reforming the operations of the Land Development Center, laying the foundation for establishing a "Land Bank" to support transactions involving land use rights transfers and enhance property rights related to agricultural land.	2025 -2026	Ministry of Agriculture and Environment (Department of Land management)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Proposal for reforming the operations of the land development fund center.
1.8	***Strengthening the Management of Fertilizers and Plant Protection Chemicals***					

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
1.8.1	Establishing and refining national standards and regulations for soil quality, fertilizers, and pesticides. Issuing national soil quality standards for agricultural, forestry, industrial, and urban land, tailored to the characteristics of each region. **(High)**	2025 -2026	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	National soil quality standards for agricultural, forestry, industrial, and urban land; technical regulations on fertilizer and pesticide quality according to ecological zones.
1.8.2	Setting safety thresholds for heavy metal concentrations, chemical residues, and organic matter levels in soil. **(High)**	2025 -2026	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	National safety threshold regulations on heavy metal content, chemical residues, and organic matter levels in agricultural and other land types by ecological zones.
1.8.3	Defining fertilizer quality standards and updating the approved pesticide list to ensure that only safe and environmentally friendly products are available on the market.	2025 -2030	Ministry of Agriculture and Environment (National Authority for Agro-Forestry-Fishery quality, processing and market development)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Fertilizer quality standards; approved pesticide list, prioritizing safe and environmentally friendly products.
1.8.4	Aligning national regulations with international standards to meet global trade requirements.	2025 -2026	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	National technical regulations and standards adjusted to align with international standards, supporting export growth and global market integration.

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
1.8.5	Enhancing market monitoring efforts, conducting regular interagency inspections of production, import, distribution, and use of fertilizers and pesticides to promptly detect unauthorized products, counterfeits, imitations, and substandard goods...	2025 -2030	Ministry of Agriculture and Environment (National Authority for Agro-Forestry-Fishery quality, processing and market development)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Plan and periodic inspection report on market surveillance; updated list of approved fertilizer and plant protection products; violation handling records and policy recommendations for strengthening market control.
2	**Tasks and Solutions for Enhancing Awareness and Human resouce quality**					
2.1	***Human Resource Development, Labor Demand Forecasting, and Training Programs for Soil Health Capacity Building***					
2.1.1	Assessing the current human resource situation related to soil health management in terms of quantity, quality, and professional structure. Identifying job positions, necessary skills, and competencies required for each phase of the Soil Health Strategy implementation. Analyzing industry development trends, the impact of policies and technology on labor demand, and developing short-, medium-, and long-term human resource forecasting models.	2025 - 2030	Ministry of Agriculture and Environment (Institute of Agricultural and Environmental Strategies and Policies)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Assessment report on the current workforce in soil health management; short-term, medium-term, and long-term human resource demand forecast model; list of job positions and professional competency framework for each implementation phase.
2.1.2	Reviewing existing policies on training and utilization of human resources in soil health management, referring to international experiences in policies for encouraging and developing specialized personnel in soil health management. Proposing policies to support training, recruitment, incentives, and retention of experts and technical personnel. Integrating human resource development	2025 - 2026	Ministry of Agriculture and Environment	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Decision of the Minister of agriculture and environment on training support policy.

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
	content into relevant national and local programs and plans.					
2.1.3	Enhancing financial support and improving working conditions for educators in soil health, particularly in disadvantaged areas. Establishing research and teaching funds to encourage faculty participation in this field.. **(High)**	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Decision on financial support and incentive policies for educators. document on the establishment and operational guidelines for the soil health research and teaching fund. report on implementation outcomes in challenging regions.
2.1.4	Developing policies that encourage educational institutions to introduce new academic programs related to soil health.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Policy document on encouraging the development of soil health education programs; list of newly established academic programs related to soil health; comprehensive report on implementation outcomes at educational institutions.
2.1.5	Providing full or partial scholarships for students majoring in soil health, especially those committed to working in local communities after graduation. **(High)**	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	Soil health scholarship program; selection regulations and community service commitment requirements; list of scholarship recipients and post-graduation

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
						commitment monitoring report.
2.1.6	Collaborating with businesses and international organizations to provide internship and job opportunities for soil health graduates. Encouraging partnerships between universities and employers, such as organic fertilizer manufacturers and companies investing in ecological and organic agriculture, to strengthen workforce readiness.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; related agencies, organizations and institutes.	I, II, III, IV	Cooperation agreements between universities, enterprises, and international organizations on internships and employment for soil health students; list of internship host institutions; evaluation report on the effectiveness of cooperation and graduate readiness.
2.1.7	Designing and organizing periodic training programs on soil health management, prioritizing content such as soil degradation prevention, pollution reduction, and fertility protection. Utilizing a combination of online and in-person training to reach diverse audiences at different levels.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; related agencies, organizations and institutes.	I, II, III, IV	Regular soil health management training program; training materials for blended learning (online and in-person); evaluation report on training outcomes and participant numbers at each level.
2.1.8	Conducting short-term and long-term training courses to enhance technical knowledge for local agricultural extension officers, equipping them with soil health expertise to further educate and advise farmers.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; related agencies, organizations and institutes.	I, II	Short-term and long-term training programs and curricula on soil health for local technical staff; list of trainees; training outcome report and expansion plan for community-based educator teams.

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
2.1.9	Integrating soil health training sessions into ongoing programs and projects, educating farmers on soil conservation and restoration techniques as well as the role of soil health in crop development.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; related agencies, organizations and institutes.	I, II	Plan for integrating soil health content into existing programs/projects; technical guide on soil conservation and restoration techniques; implementation report and assessment of farmers' awareness after training.
2.1.10	Developing demonstration models that showcase effective soil health management practices, allowing farmers to observe, learn, and apply these techniques.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Local soil health management demonstration models; effectiveness evaluation and scalability report; technical guidance documents accompanying the models.
2.2	***Develop and implement a national soil health communication campaign, Integrate soil health messaging into communication plans of sectors fields and localities***					
2.2.1	Implementing public awareness campaigns through television, newspapers, social media, and community workshops to enhance understanding of the importance of soil. **(High)**	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	National soil health communication campaign proposal; media products: television videos, news reports, social media posts, awareness materials; communication effectiveness evaluation report and community awareness assessment.
2.2.2	Promoting advocacy efforts and raising awareness, fostering green lifestyles and sustainable consumption as a foundation for developing markets for eco-friendly products that support soil health.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related	I, II, III, IV	Green consumption advocacy and communication program; consumer behavior change guidance materials; promotional campaigns for

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
				agencies and organizations.		eco-friendly products supporting soil health; consumer awareness and behavior survey report.
2.2.3	Communicating sustainable, ecological agricultural models, creating widespread influence to attract and encourage organizations and individuals to adopt and expand these practices.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	Communication materials and videos on green agriculture and sustainable ecological farming models; profiles of exemplary models; impact evaluation report on ripple effects and local scaling.
2.2.4	Integrating fundamental soil health concepts into educational curricula at all levels, from primary school to university	2025 - 2030	Ministry of Education and Training	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Guidelines for integrating soil health knowledge into general and higher education curricula; textbooks and sample lectures; pilot implementation report and national expansion plan.
2.2.5	Collaborating with social organizations and local groups to promote and encourage public participation in soil health protection efforts.	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Cooperation agreement with social organizations and local groups; community action program on soil health protection; participation and contribution monitoring report.
2.3	***Collaborate on Research and Experience Sharing***					

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
2.3.1	Collaborating with international organizations such as UNEP, FAO, and IRRI to invite experts to participate in training programs, capacity-building workshops, and specialized seminars aimed at enhancing the knowledge and skills of government agencies, research institutes, and universities.	2025 - 2030	Ministry of Agriculture and Environment (Department of International Cooperation)	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	International cooperation program for training and capacity building in soil health; list of experts and thematic workshop content; comprehensive training outcome report and feedback from participating agencies.
2.3.2	Establishing a networked environment for researchers and experts, particularly those from Southeast Asia and countries with agricultural conditions similar to Vietnam, to facilitate knowledge exchange and collaboration.	2025 - 2030	Ministry of Agriculture and Environment (Department of International Cooperation)	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Network connecting soil health researchers and experts across southeast asia and internationally; knowledge and data sharing portal; activity report and plan for sustaining and expanding academic collaboration.
3	**Technical Tasks and Solutions**					
3.1	***Strengthen Soil Health Protection and Restoration through Investments in Science, Technology, and Innovation***					
3.1.1	Establish a "Center for Soil Health Innovation Research" that brings together leading scientists in soil science and pedology to conduct research on technologies for assessing, protecting, and restoring soil health	2025 - 2027	Ministry of Agriculture and Environment (Department of Science and Technology)	Relevant Ministries and Agencies; Research Institutes and Universities	I, II, III, IV	Center for Soil Health Innovation Research
3.1.2	Improving mechanisms to encourage the transfer of advanced, clean, and environmentally friendly technologies, as well as refining technical standards to limit the adoption and gradual phase-out of outdated and environmentally harmful technologies and projects affecting soil health.	2025 - 2027	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	- A policy review report and recommendations to promote high-tech, clean, and soil-friendly technologies. - A set of updated technical standards restricting the

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
						transfer and use of outdated and soil-harming technologies. - A list of recommended technologies for adoption and a negative list of prohibited or restricted technologies.
3.1.3	Removing institutional and policy barriers, especially financial mechanisms, to promote research, application, and transfer of advanced, clean, and environmentally friendly technologies. Regularly updating regulatory frameworks and standards while strengthening technology assessment to prevent and eliminate obsolete technologies and equipment from being introduced into Vietnam.	2025 - 2030	Ministry of Science and Technology	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	- Proposed policy adjustments or draft legal documents to enhance financial mechanisms supporting clean and high-tech adoption. - Guidelines for technology assessment and appraisal prior to transfer or import. - A negative list of outdated and environmentally harmful technologies prohibited or restricted in Vietnam.
3.1.4	Increasing public investment in research, application, and technology transfer in agriculture, aiming to allocate 5% of total agricultural investment. P	2025 - 2030	Ministry of Finance	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I	State budget allocation plan
3.1.5	Enhancing the legal framework for the agricultural science and technology market, ensuring intellectual property rights enforcement aligns with real-world production requirements and international regulations.	2025 - 2030	Ministry of Agriculture and Environment (Department of	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Legal Normative Documents (Amendment of Decree or Guiding Circular).

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
			Science and Technology)			
3.1.6	Conducting research, pilot programs, and scaling up innovative scientific and technological applications, including advanced, cutting-edge, and clean technologies for agricultural production. Developing and applying scientific advancements to improve productivity, value, quality, adaptability, and efficiency while minimizing losses. Promoting smart agriculture, precision farming, and digital technology applications in agriculture...	2025 - 2030	Ministry of Agriculture and Environment (Department of Science and Technology)	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Research Report.
3.2	***Review, Evaluate, and Scale Up Technical Solutions to Maintain and Improve Soil Health, Develop Input Products to Support Soil-Health-Friendly Agricultural Practices***					
3.2.1	Develop simple toolkits—both direct-use and online—leveraging advanced technologies such as AI for rapid soil health assessment, and provide these tools to farmers and agricultural cooperatives. **(High)**	2026 -2030	Ministry of Agriculture and Environment (Center for Soil Health Innovation Research)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II, III, IV	Rapid Soil Health Assessment Toolkit
3.2.1	Reviewing and compiling environmentally friendly farming models that have been applied domestically and internationally, including practices such as the System of Rice Intensification (SRI), intercropping maize with beans (IMB), cassava with peanuts and beans (ICB), integrated coffee cultivation (ICoM), and intensive fruit farming under VietGAP (VGP) standards adapted to climate change.	2025 -2030	Ministry of Agriculture and Environment (Institute of Agricultural and Environmental Strategies and Policies)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Comprehensive report on soil-health-friendly cultivation models domestically and internationally; list of representative models by ecological region and crop type; illustrated materials and suitability assessments.

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
3.2.2	Conducting scientific research to evaluate the effectiveness of various farming techniques, such as crop rotation, intercropping, soil cover methods, minimum tillage, organic and bio-fertilizer use, and integrated pest management, tailored to different crops and ecological regions.	2025 -2030	Ministry of Agriculture and Environment (Institute of Agricultural and Environmental Strategies and Policies)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research report on the effectiveness of soil-health-friendly cultivation measures; set of indicators and evaluation criteria for each crop type and ecological region; technical recommendations based on research findings.
3.2.3	Organizing field trials in various ecological zones to verify suitability and scalability of farming practices.	2025 -2030	Ministry of Agriculture and Environment (Vietnam National Extension Center)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies, organizations and institutes.	I, II, III, IV	Report on field trial results in different ecological regions; set of criteria for evaluating suitability and scalability of models; list of proposed models for expansion by ecological region.
3.2.4	Developing demonstration models and pilot sites in local communities to provide training for farmers and technical staff.	2025 -2030	Ministry of Agriculture and Environment (Vietnam National Extension Center)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies, organizations and institutes.	I, II, III, IV	Demonstration models and sample sites at local levels based on ecological regions and production types; accompanying training manuals; Evaluation report on the effectiveness of technology transfer for farmers and local technical staff.
3.2.5	Compiling technical documents, good agricultural practice (GAP) guidelines, and specific implementation procedures for each farming technique.	2025 -2030	Ministry of Agriculture and Environment (Vietnam National Extension Center)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies, organizations and institutes.	I, II, III, IV	Technical manuals and good agricultural practices (gap) guidelines for each cultivation method; specific application procedures by ecological region and crop type; training and

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
						technology transfer materials.
3.2.6	Supporting the adoption of new technical advancements, including the use of pest-resistant crop varieties, biological pesticides, bio-based plant protection products, integrated pest management (IPM), and integrated crop management (ICM).	2025 -2030	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	List of recommended technical advances for application (pest-resistant varieties, biological pesticides, etc.); standardized ipm and icm technical procedures by crop group; report on local implementation support and expansion plan.
3.2.7	Collaborating with local authorities and businesses to scale up effective farming models, ensuring integration with sustainable agricultural value chains. Researching and reforming agricultural extension systems to create a streamlined, efficient, and adaptable framework suited to different production types and regions. Enhancing coordination between state-led and enterprise-led agricultural extension programs, developing digital and community-based extension services, and decentralizing extension activities to farmer organizations, cooperatives, and enterprises. Strengthening collaboration between training, research, and extension efforts.	2025 -2030	Ministry of Agriculture and Environment (Vietnam National Extension Center)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Summary report and expansion plan for effective cultivation models linked to sustainable agricultural value chains; agricultural extension system reform proposal towards multi-stakeholder and localized approaches; electronic extension toolkit, training materials, and coordination procedures among stakeholders.
3.2.8	Monitoring, evaluating, and adjusting farming models to ensure long-term effectiveness and sustainability based on real-world conditions.					2025 -2030

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
3.3	***Develop Production and Markets for Soil-Health-Friendly Agricultural Products***					
3.3.1	Allocating 100% of the state budget for fundamental investigations, topographic surveys, and soil, water, and air sample analyses to identify concentrated production zones for agroforestry and aquaculture projects applying VietGAP, as approved by competent authorities.	2025 -2030	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Summary report on support activities
3.3.2	Supporting the development of biotechnology enterprises producing agricultural products at an industrial scale, including organic fertilizers, microbial organic fertilizers, biological pesticides, environmental treatment bio-products, and animal feed, to promote safe and organic agriculture. **(High)**	2025 -2030	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	List of biotechnology enterprises supported for development; report on the results of industrial-scale agricultural bioproduct development support; incentive policies and technical documentation on products (organic fertilizers, bioproducts, biological pesticides, etc.).

No.	Detail activities *(Priority Level[I])*	Implemen-tation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
3.3.3	Researching and developing high-quality organic fertilizers that act quickly, are compact and easy to use, and are environmentally friendly. Facilitating the recognition and circulation of organic fertilizers without requiring trials.	2025 -2030	Ministry of Agriculture and Environment (Department of Scicence and Technology)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research report and list of high-quality organic fertilizer products; technical dossier and criteria for registration without field trials; guidance document on special mechanisms for environmentally friendly organic fertilizers.
3.3.4	Allocating state budget investments for infrastructure development and renovation, including transportation roads, irrigation systems, pumping stations, low-voltage electricity networks, waste treatment systems, and water supply and drainage systems in concentrated production zones to meet VietGAP technical standards. Funding is provided according to the Investment and Construction Management Regulations.	2025 -2030	Ministry of Agriculture and Environment (Department of Plant Cultivation and Protection)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Investment plan for infrastructure in concentrated production areas meeting vietgap standards; progress report on infrastructure construction and upgrades (transportation, irrigation, waste treatment, etc.); finalization dossier and implementation guidelines according to investment and construction management regulations.
3.3.5	Conducting market research to determine demand for agricultural products produced in ways that support soil health.	2025 -2030	Ministry of Agriculture and Environment (Institute of Agricultural and Environmental Strategies and Policies)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research report on the market for soil-health-friendly agricultural products; analysis of consumer demand and market potential domestically and internationally; policy recommendations for

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs	
			Leading	**Support**			
						sustainable market development.	
3.3.6	Developing branding strategies for agricultural products cultivated using soil health-friendly practices, creating competitive advantages in the market.	2025 -2030	Ministry of Agriculture and Environment (Vietnam National Extension Center)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Brand development strategy for soil-health-friendly agricultural products; brand identity package (logo, slogan, packaging, etc.); certified product list and brand communication report.	
3.3.7	Connecting producers with businesses, supermarkets, and clean food stores to facilitate product distribution.	2025 -2030	Ministry of Agriculture and Environment (National Authority for Agro-Forestry-Fishery quality, processing and market development)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Supply-Demand connection program between producers and distribution systems; list of consumer partners (enterprises, supermarkets, clean food stores); market connection results report and product consumption contracts.	
3.3.8	Supporting producers in obtaining certifications for quality assurance, food safety, and organic production...						2025 -2030

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
3.4	***Develop Infrastructure, Especially Irrigation Systems, to Meet Water Demand for Soil-Health-Friendly Agricultural Practices.***					
3.4.1	Upgrading and constructing new canal and irrigation systems to ensure adequate water supply for crops while improving drainage to prevent waterlogging.	2025 -2030	Ministry of Agriculture and Environment (Department of Water Resources)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Current status report and planning for upgrading and constructing canal systems; list of irrigation works funded; design, construction dossiers, and acceptance records for irrigation and drainage projects.
3.4.2	Building water storage infrastructure, including reservoirs, ponds, and dams, to retain water for irrigation during dry seasons.	2025 -2030	Ministry of Agriculture and Environment (Department of Water Resources)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Water storage infrastructure development plan in water-scarce regions; list of funded reservoirs, ponds, and dams; design and construction dossiers, and assessment report on water supply efficiency during the dry season for agricultural production.
3.4.3	Completing the system of sluices, dams, and enclosed dikes to prevent salinity intrusion in specialized agricultural zones for rice, vegetables, and fruit cultivation in coastal areas.	2025 -2030	Ministry of Agriculture and Environment (Department of Water Resources)	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related	I, II	Planning for a closed system of sluices, dams, and dikes in coastal specialized farming areas; list of funded projects; design and construction

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs	
			Leading	**Support**			
				agencies and organizations.		dossiers, and assessment report on the efficiency of salinity intrusion control for agricultural production.	
3.4.4	Issuing policies to support the adoption of advanced irrigation technologies, such as drip irrigation and sprinkler irrigation, to optimize water use efficiency and conservation.						2025 -2030
4	**Financial Tasks and Solutions**						
4.1	***Policies to Encourage Participation in Sustainable Land Use Models and Land Restoration Initiatives.***						

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
4.1.1	Researching the expansion and active implementation of incentive policies, including tax benefits, preferential loans, and technical support for organizations and individuals engaged in sustainable land use models and land restoration projects. Incentives should also target businesses involved in producing soil health-friendly agricultural inputs such as organic fertilizers and biological pesticides.	2025 - 2027	Ministry of Finance	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Research report and legal documents (amendments to decrees or guiding circulars) on tax policies, preferential loans, and technical support for organizations and individuals engaged in sustainable land use and land restoration models.
4.1.2	Supporting enterprises that manufacture agricultural inputs compatible with soil health, such as organic fertilizers and biological pesticides, through tariff reductions and land-use incentives.					2025 -2030
4.2	***Development of Policies and Tools for Resource Mobilization in Health Protection, with a Focus on Public-Private Partnership (PPP) Models and Agricultural Insurance.***					
4.2.1	Researching and developing a public-private partnership (PPP) model for land restoration projects, establishing appropriate benefit-sharing mechanisms to attract private sector participation. **(High)**	2025 - 2027	Ministry of Finance	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related	I, II	Legal documents (amendments to decrees or guiding circulars) on public-private partnership (ppp) models for land restoration projects.

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
				agencies and organizations.		
4.2.2	Conducting pilot studies and formulating mechanisms to allow the private sector to sustainably utilize restored land resources, such as developing eco-tourism or generating carbon credits through afforestation and reforestation initiatives.	2025 - 2027	Ministry of Finance	Involved agencies Ministries, ministerial-level agencies; People's Committees of provinces/cities; Related agencies and organizations.	I, II	Legal documents (amendments to decrees or guiding circulars).
4.2.3	Actively implementing Decree 58/2018/ND-CP on agricultural insurance to mitigate risks for farmers adopting soil health-friendly farming practices.	2025 - 2030	Ministry of Finance	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Implementation Plan for Decree 58/2018/NĐ-CP in localities; list of farming households and sustainable cultivation models supported by agricultural insurance; report on implementation results and policy improvement proposals for agricultural insurance linked to soil health.
4.2.4	Researching ways to increase insurance premium support for farms that implement ecological and organic farming methods.					2025 - 203

No.	Detail activities *(Priority Level[I])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	**Support**		
4.3	***Leveraging International Resources.***					
4.3.1	Developing strategies to maximize international support for soil health protection and restoration efforts in Vietnam. **(High)**	2025 - 2030	Ministry of Agriculture and Environment (Department of International Cooperation)	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Strategy for advocacy and international support mobilization in soil health; list of potential international partners; report on resource mobilization results and long-term cooperation Directions.
4.3.2	Strengthening and advocating for enhanced cooperation with bilateral and multilateral partners, international financial institutions, and global organizations to mobilize resources (financial, technical, technological, and capacity-building) in alignment with the 26th United Nations Climate Change Conference (COP26), sustainable development goals, and green transition initiatives.	2025 - 2030	Ministry of Agriculture and Environment (Department of International Cooperation)	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Cooperation program with bilateral, multilateral partners, and international organizations; list of projects supporting cop26 implementation, sdgs, and green transition; advocacy report, memorandums of cooperation, and resource mobilization results.
4.3.3	Preparing well-defined project proposals and implementation plans that align with the Sustainable Development Goals (SDGs), including land resource conservation, greenhouse gas emissions reduction, and livelihood improvement for local communities. Priority should be given to degraded lands and areas with high biodiversity value to attract international attention and funding.	2025 - 2030	Ministry of Agriculture and Environment (Department of International Cooperation)	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Project proposal dossier and implementation plan aligned with sdgs; list of priority areas (degraded land, high biodiversity regions); report on international funding connections and partner feedback.

No.	Detail activities *(Priority Level[1])*	Implementation time	Implementing agencies		Financial sources	Outputs
			Leading	Support		
4.3.4	Accelerating administrative reforms to facilitate international funding reception through streamlined and harmonized procedures aligned with global practices.	2025 - 2030	Ministry of Finance	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Legal documents and guidelines on reforming procedures for receiving international funding; review and simplification report on administrative procedures; comparative table of procedures before and after reform according to international practices.
4.3.5	Providing and disseminating transparent information about the implementation of soil health protection and sustainable development initiatives to the international community.	2025 - 2030	Ministry of Agriculture and Environment (Department of International Cooperation)	Involved agencies Ministries, ministerial-level agencies; Related agencies and organizations.	I, II	Periodic multilingual reports on progress and implementation results of soil health protection solutions for international partners; presentation materials for global forums and conferences.

1 Priority Level: Note (High) *— Refers to specific tasks or activities of high priority that require urgent and preferential implementation.*