

**DECISION**

**Approving the National Master Plan on Environmental Protection for the 2021-2030 period, with a vision toward 2050<sup>1</sup>**

**THE PRIME MINISTER**

*Pursuant to the June 19, 2015 Law on Organization of the Government; and the November 22, 2019 Law Amending and Supplementing a Number of Articles of the Law on Organization of the Government and the Law on Organization of Local Administration;*

*Pursuant to the November 17, 2020 Law on Environmental Protection;*

*Pursuant to the November 24, 2017 Planning Law;*

*Pursuant to the June 15, 2018 Law Amending and Supplementing a Number of Articles of Eleven Laws concerning Planning;*

*Pursuant to the November 20, 2018 Law Amending and Supplementing a Number of Articles of Thirty-Seven Laws concerning Planning;*

*Pursuant to the Government's Decree No. 37/2019/ND-CP of May 7, 2019, detailing the implementation of a number of articles of the Planning Law;*

*Pursuant to the National Assembly's Resolution No. 61/2022/QH15 of June 16, 2022, on further improving the effectiveness and efficiency of the implementation of planning policies and laws and a number of solutions to tackle difficulties and obstacles, accelerate the formulation and improve the quality of master plans for the 2021-2030 period;*

*Pursuant to the National Assembly's Resolution No. 81/2023/QH15 of January 9, 2023, on the National Overall Master Plan for the 2021-2030 period, with a vision toward 2050;*

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<sup>1</sup> Công Báo Nos 847-848 (23/7/2024)

*Pursuant to the Government's Resolution No. 11/NQ-CP of February 5, 2018, on the implementation of the Planning Law;*

*Pursuant to the Government's Resolution No. 119/NQ-CP of September 27, 2021, on tasks and solutions to improve the quality and accelerate the formulation of master plans for the 2021-2030 period;*

*Pursuant to the Prime Minister's Decision No. 450/QĐ-TTg of April 13, 2022, approving the National Strategy for Environmental Protection through 2030, with a vision toward 2050;*

*Pursuant to the Prime Minister's Decision No. 274/QĐ-TTg of February 18, 2020, approving the task of formulation of the master plan on environmental protection for the 2021-2030 period, with a vision toward 2050;*

*At the proposal of the Minister of Natural Resources and Environment in Report No. 44/TTr-BTNMT of May 3, 2024, requesting the approval of the National Master Plan on Environmental Protection for the 2021-2030 period, with a vision toward 2050; and Appraisal Report No. 113/BC-HĐTDQH of December 4, 2023,*

DECIDES:

**Article 1.** To approve the National Master Plan on Environmental Protection for the 2021-2030 period, with a vision toward 2050 (below referred to as the Master Plan), with the following principal contents:

1. Viewpoints

- The Master Plan must follow the Party's guidelines, line and policies and the State's laws and be in line with international commitments on environmental protection which Vietnam has acceded to or concluded; meet requirements for the achievement of the objectives set in the Socio-Economic Development Strategy, National Environmental Protection Strategy, National Overall Master Plans, National Master Plan on Marine Spaces, National Land-Use Master Plan, climate change scenarios, and Master Plan on environmental protection associated with the performance of national defense and security tasks throughout the country.

- The Master Plan sets environmental protection orientations for national sectoral master plans, regional master plans and provincial master plans, adhering to the principles that the environment will never be traded for economic development and the environmental factor should be taken into account in every socio-economic development activity in harmony with nature and in respect for natural laws, thereby promoting economic development on the basis of green

economy, circular economy and low-carbon economy with a view to reducing waste generation, realizing the net zero emission goal by 2050 and fair energy transition, thus contributing to successfully achieving national socio-economic targets for the 2021-2030 period.

- The Master Plan is open and flexible for its incorporation in other relevant master plans so as to achieve the goals of sustainable development, adaptation to climate change, and early prevention of environmental issues; promote the application of integrated management methods and all-sided approaches based on natural ecosystems.

- The Master Plan aims to enhance harmonious connections in environmental management and protection activities among socio-economic regions, provinces and centrally run cities; facilitate the proactive prevention, control and remediation of environmental pollution, improvement of the environmental quality and protection of zones with environmentally sensitive elements; and focus on the solution of cross-border, interregional and interprovincial environmental issues in association with the conservation of natural values and biodiversity, and promotion of economical, efficient and sustainable use of natural resources.

- To diversify investment resources for implementation of the Master Plan; to mobilize all social resources in combination with increasing state budget funds; to apply the principle that polluters shall pay environmental treatment expenses and compensation for environmental damage and beneficiaries of environmental values shall pay charges; to efficiently use economic instruments in association with improvement of the awareness about, and sense of responsibility for action in, environmental protection of Party Committees, local administrations and mass organizations at all levels, businesses and the people.

## 2. Objectives

### a/ General objectives

To proactively prevent and control environmental pollution and degradation; to restore and improve the environmental quality; to prevent the decline of and improve the quality of biodiversity with a view to guaranteeing the people's right to live in a healthy environment on the basis of rationally arranging and distributing spaces and zoning for environmental quality management; to set orientations for establishment of nature and biodiversity protection and conservation zones; to form national-, regional- and provincial-level centralized waste treatment zones; to set orientations for building of national- and provincial-level environmental monitoring and warning networks; to promote sustainable

socio-economic development toward environmentally friendly green economy, circular economy and low-carbon economy in harmony with the nature and proactive response to climate change.

b/ Specific objectives

- Regarding environmental zoning: To set uniform orientations for environmental zoning nationwide based on the criterion of environmentally sensitive elements vulnerable to pollution impacts, with a view to mitigating negative impacts on life and normal development of humans and other organisms.

- Regarding nature and biodiversity conservation: To set orientations for conservation of natural values, biodiversity and natural heritages in order to restore and maintain natural ecosystems and prevent the trend of biodiversity loss on the basis of consolidating, expanding and efficiently managing existing protected areas, biodiversity corridors, high-biodiversity areas, important natural landscapes and wetlands and conservation facilities and establishing new ones in order to preserve, conserve and develop endemic, endangered, precious and rare genetic resources and samples of plant varieties and livestock breeds.

By 2030, to increase the area of protected areas; to protect and restore important natural ecosystems, and improve the biodiversity quality; to increase the total area of protected areas nationwide to around 6.7 million hectares.

The specific targets for different objects in terms of nature and biodiversity conservation are provided in the National Master Plan on Biodiversity Conservation for the 2021-2030 period, with a vision toward 2050.

- Regarding centralized waste treatment zones: To set orientations for synchronous formation of the system of national-, regional- and provincial-level centralized waste treatment zones with appropriate capacity and treatment technologies to meet requirements of the collection and treatment of the whole volume of domestic solid wastes, common industrial solid wastes and hazardous wastes generated nationwide, thereby minimizing the volume of buried solid wastes, practicing at-source waste classification, and promoting waste recycling and reuse; at the same time, to formulate mechanisms and policies to intensify the mobilization of social resources and attraction of investment from the private sector and foreign investment in waste treatment. Specific targets by 2030 are as follows:

+ To establish at least 2 national-level centralized waste treatment zones;

+ To establish at least 7 regional-level centralized waste treatment zones in the socio-economic regions during the planning period;

+ To establish at least 1 provincial-level centralized waste treatment zone in each province or centrally run city.

- Regarding environmental monitoring and warning networks: To set orientations for establishment of national- and provincial-level national monitoring and warning networks that are uniform, complete, modern and interconnected nationwide in order to proactively monitor the actual state and initially build the capacity for forecasting environmental quality changes and giving environmental pollution warnings; to ensure the prompt provision of information to serve the state management of environment; specifically as follows:

(1) For the national environmental monitoring and warning network: To set orientations for establishment of the national environmental quality monitoring network in interregional, interprovincial and cross-border areas, focusing on monitoring activities in key areas and areas that are important for the country's nature conservation and socio-economic development. This network must be compatible and connected with provincial-level environmental monitoring systems.

(2) For provincial-level environmental monitoring and warning networks: To set orientations for establishment of environmental quality monitoring networks in provinces and centrally run cities, focusing on areas prone to environmental pollution caused by socio-economic development activities, areas impacted by various waste sources and areas that are important in terms of landscape, ecology and environment under local management, ensuring their harmony and close connection with the national environmental monitoring and warning network, in order to efficiently use the environmental quality monitoring data source nationwide.

c/ Vision toward 2050:

Vietnam's environment will be of good quality and healthy for the people; to efficiently conserve biodiversity and maintain ecological balance; to proactively respond to climate change; to ensure social development in harmony with the nature and sustainable national development toward green transition based on the development of circular economy, green economy and low-carbon economy in order to achieve the net zero emission goal by 2050; to ensure environmental security associated with rapid and sustainable socio-economic development.

3. Environmental protection tasks

a/ Mitigating environmental impacts caused by socio-economic development activities

- To zone environmental areas in a uniform manner nationwide in order to organize environmental protection activities appropriate to such areas to control, prevent and mitigate impacts of environmental pollution on the life and normal development of humans and other organisms.

- To formulate a roadmap for upgrading and renovation of waste treatment technologies for production, business and service establishments in different environmental areas; to formulate a roadmap and plans for relocation of production, business and service establishments that fail to meet environmental protection requirements of environmental areas and environmental safety distances for residential areas.

- To monitor and take the initiative in preventing and responding to air, seawater and intercountry, interregional and interprovincial river basin environment pollution incidents.

b/ Managing domestic solid wastes, industrial solid wastes and hazardous wastes

- To survey, evaluate and determine areas qualified for establishment of national-, regional- and provincial-level centralized waste treatment zones; to build and complete infrastructure facilities of such zones.

- To invest in equipment for waste collection, build stations for transshipment of domestic solid wastes in urban areas, expand the network of domestic solid waste collection in rural areas; to encourage rural households and individuals to use food leftovers as organic fertilizers or livestock feed.

- To organize at-source classification of domestic solid wastes, apply measures to reduce waste generation, intensify waste reuse and recycling up to environmental protection regulations and technical requirements; to reduce plastic wastes and marine plastic litter.

- To devise and implement measures to prevent the import of old, obsolete, waste-generating and fuel, material and energy-inefficient technologies.

- To implement regulations on extended producer responsibility (EPR) regarding the responsibility to recycle and treat products, packages and wastes of producers and importers.

- To build and develop the industry of recycling and recovery of natural resources and energy from wastes; to transition and build eco-industrial parks and recycling industrial parks; to promote investment in and building of modern recycling facilities; to step by step limit manual, small-scale and polluting recycling facilities in craft villages.

- To invest in the treatment, rehabilitation and restoration of the environment in unhygienic landfills of domestic solid wastes.

- To diversify waste treatment technologies, and promote the application of advanced, modern and environmentally friendly waste treatment technologies; to continue enhancing waste co-treatment and treatment combined with energy recovery; to limit and eventually terminate the building of domestic solid waste treatment facilities using burial technology.

c/ Managing and improving the environmental quality

- To formulate and implement plans on quality management of surface water environment in rivers and lakes/reservoirs; to take the initiative in controlling and warning the pollution of surface water environment in inter-country river basins; to prevent, control and remediate pollution and improve the water environment quality in river basins; to focus on treating serious environmental pollution in a number of river basins.

- To prevent and control pollution of, and protect, the groundwater environment in groundwater exploration and exploitation activities; to control impacts of socio-economic development on the groundwater environment.

- To prevent and control incidents causing pollution of the marine environment; to formulate a mechanism for coordination among related countries in solving marine environment-related issues.

- To formulate and implement national- and provincial-level plans on management of air environment quality, attaching special importance to major cities and air pollution hotspots; to control and prevent air pollution caused by production, business and service activities.

- To formulate a roadmap on and organize the relocation of establishments that fail to meet environmental protection requirements of environmental areas.

- To continue to strictly control industrial establishments with large gas emissions, such as thermal power plants, cement plants, steel mills, chemical factories, etc.

- To survey, evaluate and classify soil environment pollution, and formulate and implement plans on treatment, rehabilitation and restoration of polluted soil areas and areas where dioxin or gasoline/oil residues as war consequences or pesticide residues exist.

d/ Conserving nature and biodiversity

- To establish natural heritages, consolidate, expand and effectively manage the system of natural heritages, protected areas, biodiversity corridors, important landscapes, important wetlands and conservation facilities; to formulate mechanisms and policies to promote the mobilization of social resources for the establishment, management and development of protected areas and voluntary biodiversity conservation zones.

- To survey, evaluate and identify high-biodiversity areas, important natural landscapes and important wetlands; to guide the application of effective biodiversity conservation measures in these areas.

- To formulate regulations and guidelines on protection of the environment in natural heritages, and biodiversity offsets, and policies on investment in natural heritages and protected areas.

- To evaluate and quantify biodiversity values; to continue to efficiently implement the mechanism for payment of charges for natural ecosystem services; to expand the payment of charges for ecosystem services for mangrove forests, wetlands, rock mountains, caves, caverns, and geoparks.

- To formulate and implement programs and plans on restoration and sustainable use of the value of degraded important natural ecosystems; to develop models of conservation of biodiversity, green spaces, natural ecosystems and natural landscapes in urban areas.

- To manage, protect and restore natural forests; to continue stopping the exploitation of timber from natural forests; to raise wildfire prevention and fighting capacity, thereby reducing the number of wildfire cases and forest area devastated in wildfire; to conserve and restore endangered wild species; to enhance the conservation of genetic resources; to prevent the illegal exploitation of wild fauna and flora and deforestation.

- To incorporate environmental protection and biodiversity conservation requirements in master plans on exploitation and use of natural resources; to strictly control the repurposing of forest land, water surface and sea surface areas.

- To carry out inventory, and completely build the national database on, biodiversity in sync with information systems and databases on natural resources and environment.

dd/ Promoting sustainable growth models

- To change growth models based on increased productivity, scientific and technological advances, innovation and digital transformation; to efficiently use natural resources, aiming toward achieving the dual goal of economic growth and



environmental pollution and degradation reduction, proceeding to obtain the net zero emissions goal by 2050.

- To ensure industrial development toward environmental friendliness; to greenify industrial production sectors and promote the development of green industries, hi-tech industries, and eco-industrial parks.

- To develop eco-agriculture, hi-tech agriculture and organic agriculture; to intensify the reuse of agricultural byproducts; to limit and controllably use inorganic fertilizers, pesticides and antibiotics in crop production, livestock production and aquaculture.

- To carry out sustainable urbanization, develop urban centers in association with the development of technical infrastructure for environmental protection; to attach importance to developing green cities, ecological cities, and smart cities that are adaptable to climate change.

- To intensify the implementation of environmental protection contents of the National Target Program on building of new-style countryside; to develop model residential area and road models; to build green-clean-beautiful landscapes and environment; to maintain and improve the quality of the rural environment.

- To build and develop models of circular economy, green economy and low-carbon economy; to implement the National Action Program on sustainable production and consumption.

#### 4. The Master Plan's orientations

##### a/ Orientations for zoning of environmental areas:

The zoning of environmental areas must comply with Article 25 of the Government's Decree No. 37/2019/ND-CP of May 7, 2019, detailing the implementation of a number of articles of the Planning Law, and Articles 22 and 23 of the Government's Decree No. 08/2022/ND-CP of January 10, 2022, detailing a number of articles of the Law on Environmental Protection.

##### b/ Orientations for nature and biodiversity conservation:

- National parks: To transition or regrade existing national parks and establish new ones that satisfy the criteria specified by the biodiversity, forestry, environmental protection and fisheries laws and other relevant laws in order to ensure effective conservation of natural values and biodiversity on the mainland and in coastal and marine areas, maintenance of the forest coverage rate of at least 42-43%, environmental protection, adaptation to climate change, and development of eco-tourism.

- Nature reserves: To transition existing nature reserves and establish new ones that satisfy the criteria specified by the biodiversity, forestry, environmental protection and fisheries laws and other relevant laws in order to ensure status-quo conservation of natural ecosystems and endemic or endangered, precious and rare wildlife species in danger of extinction; unique natural or cultural values serving scientific research, environmental education, environmental protection and rational exploitation of natural ecosystem services.

- Species and habitat conservation areas: To transition existing species and habitat conservation areas and establish new ones that satisfy the criteria specified by the biodiversity, forestry, environmental protection and fisheries laws and other relevant laws in order to conserve wildlife and natural ecosystems that provide habitats for endangered, precious and rare species prioritized for protection.

- Landscape protection areas: To transition existing landscape protection areas and establish new ones that satisfy the criteria specified by the biodiversity, forestry, environmental protection and fisheries laws and other relevant laws in order to ensure status-quo conservation of natural landscapes of aesthetic, scientific, cultural and environmental education value.

- Biodiversity conservation facilities: To transition existing biodiversity conservation facilities and establish new ones that will operate in accordance with the biodiversity law in order to preserve and conserve wildlife genetic resources, plant varieties, livestock breeds, and endangered, precious and rare species; to upgrade and develop, and grant biodiversity conservation facility certificates to, botanical gardens, zoos, animal rescue centers, medicinal plant gardens, gene banks and museums of nature.

- Biodiversity corridors: To transition existing biodiversity corridors and establish new ones that satisfy the criteria specified by the environmental protection and biodiversity laws and other relevant laws in order to enhance their function of connecting natural ecological areas, improve the connectivity of natural ecosystems, and expand wildlife habitats.

- High-biodiversity areas: To form high-biodiversity areas that satisfy the criteria specified by the environmental protection and biodiversity laws and other relevant laws in order to protect important natural ecosystems and natural habitats of wild flora and fauna.

- Important natural landscapes: To establish important natural landscapes that satisfy the criteria specified by the environmental protection and biodiversity laws and other relevant laws in order to protect natural ecosystems and natural habitats

of organisms, particularly endangered and threatened species prioritized for protection.

- Important wetlands: To form important wetlands in coastal, island and inland wetland areas that satisfy the criteria specified by the environmental protection and biodiversity laws and other relevant laws in order to ensure protection of important ecosystems and wildlife resources, environmental protection and maintenance of natural ecosystem services.

- To ensure efficient management and sustainable development of the forest system in protected areas, biodiversity corridors, high-biodiversity areas, important natural landscapes, important wetlands and other areas in order to improve the carbon absorption and sequestration capacity, aiming toward achieving the country's goal of net zero emissions by 2050 and participation in the carbon market.

c/ Orientations for establishment of national-, regional- and provincial-level centralized waste treatment zones

- Orientations regarding waste volumes and types and service coverage of national-, regional- and provincial-level centralized waste treatment zones:

- + National-level centralized waste treatment zones will apply advanced and modern technologies, and treat wastes in combination with energy recovery, waste recycling and reduction of greenhouse gas and pollutant emissions; have a large waste treatment scale and capacity suitable to each investment project; can treat various types of hazardous and hard-to-treat wastes, and collect, receive and treat hazardous wastes and common industrial solid wastes nationwide and domestic solid wastes in provinces (where the treatment zones are located). It is encouraged to collect, receive and treat domestic solid wastes from neighboring provinces and centrally run cities.

- + Regional-level centralized waste treatment zones will apply advanced and modern technologies, and treat wastes in combination with energy recovery, waste recycling and reduction of greenhouse gas and pollutant emissions; have a waste treatment scale and capacity suitable to each investment project; can treat a number of hazardous and hard-to-treat waste types; and have the scope of waste collection, receipt and treatment as follows:

- Nationwide, for hazardous wastes and common industrial solid wastes for the recycling purpose;

- In socio-economic regions or neighboring areas, for hazardous wastes not for the recycling purpose, and common industrial solid wastes;

- In provinces (where regional-level centralized waste treatment zones are located), for domestic solid wastes; it is encouraged to collect, receive and treat domestic solid wastes from neighboring provinces and centrally run cities.

- + Provincial-level centralized waste treatment zones will have a waste treatment capacity suitable to each investment project; and have the scope of waste collection, receipt and treatment as follows:

- Nationwide, for hazardous wastes and common industrial solid wastes for the recycling purpose;

- In provinces, for domestic solid wastes generated in provinces; it is encouraged to collect, receive and treat domestic solid wastes from neighboring provinces and centrally run cities.

- + Localities that have master plans on national- and regional-level centralized waste treatment zones under their management shall proactively mobilize all possible social resources or enter into public-private partnership for the implementation of such master plans.

- + It is prioritized to receive waste treatment projects and facilities subject to relocation or conversion into national-, regional- and provincial-level centralized waste treatment zones.

- Orientations for locations of national-, regional- and provincial-level centralized waste treatment zones:

- + Selection of locations for construction of centralized waste treatment zones must ensure that their construction and operation satisfy requirements on environmental protection and mitigation of negative impacts on human health and the environment and do not affect natural conditions and land use purposes.

- + Locations for construction of centralized waste treatment zones must conform to the approved national environmental protection master plans, master plans on socio-economic regions, provincial master plans or other master plans relevant to waste management. It is prioritized to locate such zones in areas where centralized waste treatment zones already exist in order to limit the construction of new ones.

- + Locations for construction of centralized waste treatment zones must be convenient for waste collection and transportation and close to areas where massive wastes are generated, thereby ensuring enhanced connection with areas with large waste volumes and formation of recycling industry zones, and convenient for building modern technical infrastructure and treatment

technologies, thereby reducing the land occupancy demand and environmental pollution.

- + Locations for construction of centralized waste treatment zones must ensure law-specified environmental safety distances.

- + No centralized waste treatment zones will be constructed in areas frequented by water inundation or prone to water inundation due to sea level rise, karst areas, areas experiencing tectonic faults, and areas where river and lake/reservoir surface water is used for domestic water supply.

- + Hazardous waste treatment service-providing establishments that have been granted environmental licenses or hazardous waste treatment licenses under previous regulations which remain effective before the date of promulgation of the Master Plan, and are located outside national- or regional-level centralized waste treatment zones included in the Master Plan or relevant regional master plans may continue to operate under Clause 3, Article 59 of the Planning Law but must satisfy the following requirements: (1) being included in provincial master plans; (2) refraining from increasing their capacity, or expanding their area or service coverage compared to that stated in their environmental licenses or hazardous waste treatment licenses and investment policy approval documents or investment registration certificates in accordance with the investment law; (3) satisfying environmental protection requirements for different environmental areas; and (4) satisfying the law-specified requirement on environmental safety distance. It is encouraged to relocate hazardous waste treatment facilities into planned national-, regional- and provincial-level centralized waste treatment zones.

- + Hazardous waste treatment service-providing projects that have had their environmental impact assessment report appraisal results approved, and are located outside national- or regional-level centralized waste treatment zones included in the Master Plan or relevant regional master plans may continue to be implemented under Clause 3, Article 59 of the Planning Law but must satisfy the following requirements: (1) being included in provincial master plans; (2) refraining from increasing their capacity or expanding their area or service coverage compared to investment policy approval documents or investment registration certificates in accordance with the investment law; (3) satisfying environmental protection requirements for different environmental areas; and (4) satisfying the law-specified requirement on environmental safety distance. It is encouraged to relocate hazardous waste treatment service-providing projects into planned national-, regional- and provincial-level centralized waste treatment zones.

+ To strive for the target that by 2030, centralized waste treatment zones and waste treatment facilities that fail to satisfy the requirement on environmental safety distance and discharge wastewater directly into surface water sources used for domestic water supply, and fail to satisfy the requirement on roadmap of application of national technical regulations and local technical regulations on wastes will be relocated into planned national-, regional- and provincial-level centralized waste treatment zones.

- Orientations regarding technologies for national-, regional- and provincial-level centralized waste treatment zones:

+ For technologies for treatment of hazardous wastes and common industrial solid wastes: To promote the application of advanced and modern recycling technologies to recover resource value from wastes, technologies for waste treatment combined with energy recovery, and best available techniques (BAT) in order to reduce and control generated secondary wastes and minimize the buried waste volume.

+ For technologies for treatment of domestic solid wastes: To diversify waste treatment technologies to reduce the buried waste volume; to promote the application of advanced and modern technologies for waste recycling and treatment combined with energy recovery, and BAT, thereby exhaustively using food wastes (food leftovers, unused vegetables and fruits, etc.) as livestock/poultry feed and organic fertilizers.

+ To continue to intensify the co-treatment of hazardous wastes, common industrial solid wastes and domestic solid wastes; to promote cooperation and association in the treatment of organic domestic solid wastes into livestock/poultry feed and organic fertilizers.

- For provincial-level centralized waste treatment zones, provincial-level People's Committees shall be assigned to determine and include such zones in provincial master plans for the 2021-2030 period, with a vision toward 2050, for submission to the Prime Minister for approval, and organize the implementation thereof.

d/ Orientations regarding national- and provincial-level environmental monitoring and warning networks

- Regarding national-level environmental monitoring and warning networks: The operation of the national environmental monitoring network shall be organized for the environmental elements specified in the Law on Environmental Protection, including: surface water, surrounding air, soil, and biodiversity, and other elements.

+ The surface water environment monitoring network:

- Orientations regarding surface water environment monitoring positions on main streams and lakes/reservoirs of interprovincial and intercountry rivers in major river basins already included in the list of interprovincial and intercountry watercourses, and on rivers being sources receiving wastewater of major cities and areas with intensive wastewater sources, and monitoring spots on boundaries between provinces.

- Orientations regarding periodical monitoring parameters as specified in the national technical regulation on surface water quality; and assurance of the monitoring frequency of at least 10 times/year.

+ The air environment monitoring network:

- Orientations regarding basic environmental monitoring (automatic monitoring) positions in areas lowly impacted by emission sources and representing socio-economic development regions.

- Orientations regarding impact environmental monitoring (periodical or automatic monitoring) positions in areas impacted by multiple waste sources (urban centers, traffic, construction, industry, people's daily life, etc.), and areas suffering interregional, interprovincial and cross-border impacts.

- Orientations regarding acid rain monitoring positions integrated with hydrometeorological monitoring stations.

- Orientations regarding automatic and continuous monitoring parameters: at least for SO<sub>2</sub>, NO<sub>2</sub>, CO, O<sub>2</sub>, PM<sub>2.5</sub> dust, and PM<sub>10</sub> dust.

- Orientations regarding periodical monitoring parameters as specified in the national technical regulation on air quality, and assurance of the monitoring frequency of at least 8 times/year.

+ The soil quality monitoring network: The national program on soil quality monitoring shall be formulated and designed in detail according to programs on survey and evaluation of soil environment quality in accordance with the Law on Environmental Protection.

+ Orientations regarding other environmental quality monitoring networks: To establish the network of monitoring spots for other environmental elements (groundwater, seawater, acid rain, etc.) in order to ensure the provision of sufficient information and data for environmental protection activities.

- Provincial-level environmental monitoring and warning networks: Provincial-level environmental monitoring networks should be established in

close connection with the national-level environmental monitoring network, focusing on monitoring of the main environmental elements, including surface water, surrounding air and soil, and other elements.

+ River water environment monitoring and warning networks:

- Orientations regarding positions of monitoring spots on intercountry and interprovincial rivers running localities and on intra-provincial rivers: To establish such monitoring spots on headwaters of intra-provincial rivers; areas receiving currents into localities; areas of main stream confluence; areas impacted by multiple waste sources (industrial, agricultural, urban, craft village, mining and tourist wastes); aquaculture areas, areas of water exploitation for domestic and irrigation water supply; ponds, lakes and reservoirs (including also hydropower reservoirs for domestic, production and service water supply), and lagoons in areas with important socio-economic, landscape and environment significance.

- Orientations regarding periodical monitoring parameters as specified in the national technical regulation or local technical regulations on surface water quality.

- Orientations regarding monitoring frequency: at least 6 times/year.

+ The groundwater environment monitoring and warning network:

- Orientations regarding positions of monitoring spots in areas impacted by industrial and agricultural activities; areas impacted by waste landfills and centralized waste treatment zones; mining areas; areas impacted by residues of hazardous chemicals and radioactive substances (from agricultural chemical supplies storehouses or as war consequences); areas for preservation of materials, fuels and chemicals; densely populated areas and areas with intensive groundwater exploitation; and areas impacted by cemeteries.

- Orientations regarding monitoring parameters as specified in the national technical regulation or local technical regulations on groundwater quality.

- Orientations regarding the monitoring frequency: at least once every quarter (4 times/year).

+ The seawater environment monitoring and warning network:

- Orientations regarding positions of monitoring spots in coastal areas; areas impacted by wastewater generated from industrial activities, urban areas, tourist sites and fishing ports; underwater entertainment and amusement parks; coastal aquaculture areas; coastal and marine protected areas, coastal Ramsar sites, and coastal important wetlands; and areas for sea shipping routes.



- Orientations regarding monitoring parameters as specified in the national technical regulation or local technical regulations on seawater quality.

- Orientations regarding the monitoring frequency: at least once every 2 months (6 times/year).

- + The air environment monitoring and warning network:

- Orientations regarding positions of basic environmental monitoring spots in areas lowly impacted by emission sources; impact environmental monitoring positions in areas impacted by industrial, urban, traffic and construction waste sources, waste landfills, centralized waste treatment zones, people's daily-life activities, craft villages and areas on administrative boundaries with other provinces and centrally run cities or border areas with other countries.

- Orientations regarding periodical monitoring parameters as specified in the national technical regulation or local technical regulations on air quality.

- Orientations regarding the monitoring frequency: at least 6 times/year (once every 2 months).

- + The soil environment monitoring network:

- Orientations regarding positions of monitoring spots: (i) in areas suffering extremely serious soil pollution as annually surveyed in detail and reported by localities to the Ministry of Natural Resources and Environment, and not yet included in the Prime Minister-issued plans on treatment, rehabilitation and restoration of areas suffering extremely serious soil pollution; (ii) in areas suffering extremely serious soil pollution and, after the soil pollution treatment, being included in the Prime Minister-issued plans on treatment, rehabilitation and restoration of areas suffering extremely serious soil pollution; (iii) and in areas with pollution risks.

- Orientations regarding monitoring parameters as specified in the national technical regulation or local technical regulations on soil quality.

- The number of monitoring spots, parameters and frequency of the national-level environmental monitoring and warning networks are specified in the National Overall Master Plan on Environmental Monitoring for the 2021-2030 period, with a vision toward 2050.

- Based on environmental monitoring orientations set in the Master Plan, provincial-level People's Committees shall build and operate their provincial-level environmental monitoring networks.

5. Solutions to organize and supervise the implementation of the Master Plan

a/ Intensifying public communication to improve the public awareness

- To disseminate regulations on natural resource management and environmental protection among administration levels and sectors in order to improve their awareness; to step by step change the perception and mindset of administration levels and sectors about the role of environmental protection in socio-economic development.

- To disseminate contents of the Master Plan to socio-political organizations, residential communities, businesses, and production, business and service establishments.

- To incorporate environmental protection criteria in the contents for annual evaluation of job performance of heads of units; to continue to organize the annual evaluation and grading of environmental protection results of localities.

- To include contents on environmental protection planning in specialized environmental training programs in the higher education system.

- To bring into full play the sense of law observance and proper performance of corporate social responsibility toward the environment, and the EPR ; to improve the awareness and knowledge about circular economy, green economy and low-carbon economy; to encourage businesses to comply with environmental standards and their voluntary environmental commitments; to annually evaluate and grade sustainable businesses.

- To further step up the public communication about environmental issues in the mass media in a regular, practical and efficient manner; to strengthen and bring into full play advantages of new communication technologies, social media and online forums, etc.; to form and develop a green lifestyle whereby the people comply with regulations on environmental protection, and build an environmental protection culture.

- To carry out public communication and mobilization for reduction of marine plastic litter; to limit the use of disposable plastic products and non-biodegradable plastic bags.

b/ Improving environmental protection mechanisms, policies and legal framework

- To review and revise regulations on administrative sanctions with higher fine levels.

- To formulate and promulgate regulations and technical regulations on wastewater and emissions to meet protection requirements of environmental areas.

- To formulate, promulgate and review regulations on environmental protection in areas with environmentally sensitive elements, such as natural heritages, protected areas, biodiversity corridors, high-biodiversity areas, important natural landscapes, important wetlands, historical-cultural relics ranked under regulations, and surface water sources for domestic water supply.

- To formulate econo-technical norms for the treatment of pollution and rehabilitation and restoration of the environment in waste landfills; to formulate technical guidelines for renovation of polluting waste landfills.

- To formulate mechanisms and policies for development of environmental services and economic instruments to be applied in environmental protection.

- To review, revise and improve mechanisms and policies on provision of incentives and support for environmentally friendly production, business and service activities; to promote the application of circular economy.

c/ Improving organizational apparatus and stepping up administrative reform in environmental protection

- To continue to strengthen the organizational apparatus of the system of environmental management agencies from the central to local levels, ensuring their uniformity, professionalism and effective and efficient operation.

- To accelerate the delegation and decentralization of powers and assign more responsibilities to local administrations for environmental protection; at the same time, to build the capacity for provincial-, district- and commune-level administrations; to strengthen linkage and coordination among socio-economic regions and localities in the environmental protection work.

- To further reform and simplify environment-related administrative procedures toward high effectiveness and efficiency of the state management work and, at the same time, to reduce legal risks and compliance costs for the people and businesses; to change management methods toward reducing “pre-licensing inspection” and increasing “post-licensing inspection”, thereby raising proactivity and accountability of businesses in environmental protection.

d/ Intensifying the implementation of environmental protection policies and laws

- To intensify examination and inspection of production and business establishments that are highly likely to cause environmental pollution; to apply the mechanism for unscheduled examination and inspection upon detection of signs of violation; to step up effective coordination between state management agencies in

charge of environment, inspection agencies and people's public security units having the functions and tasks of preventing and combating environmental crimes.

- To provide more public and transparent information in environmental management to the community, while raising the accountability of environmental management officers at all levels.

- To enhance environmental protection supervision by residential communities, the Vietnam Fatherland Front, organizations, individuals and communications agencies; to develop and apply digital platforms, social media, hotlines, etc., in order to enhance environmental supervision.

- To formulate and implement the mechanism for settlement of environmental complaints, denunciations and disputes, and the mechanism for determination of the responsibility to pay compensation for environmental damage.

- To improve the environmental governance capacity of businesses, industrial parks, cottage industry zones, and craft villages.

dd/ Increasing financial investment

- To review, revise and improve mechanisms and policies to mobilize investment from non-state budget sources for environmental protection, and regulations on bidding for provision of environmental public services; to implement the form of public-private partnership (PPP) in the collection, transport and treatment of domestic solid wastes and domestic wastewater.

- To mobilize investment from domestic and foreign social resources, rationally allocate state budget funds, and improve the use efficiency of resources, for environmental protection; to prioritize raising the capacity for managing and solving key and pressing environmental issues; to gradually increase state budget allocations in each period to meet environmental protection requirements and tasks and suit the state budget capacity; to review and restructure budget spending tasks for environmental protection to be more focused, selective and efficient.

- Regarding the construction of national- and regional-level centralized waste treatment zones, to prioritize the allocation of central and local budget funds for investment in complete construction of infrastructure systems connected with areas outside such zones, thus creating favorable conditions for attracting businesses' investment in waste treatment within such zones.

- To finalize and promulgate preferential financial mechanisms and policies in order to promote the development of the environmental industry and services that are capable of solving and addressing environmental issues; to attach

importance to developing the capacity for providing environmental services, particularly services of recycling and treating wastes and treating environmental pollution.

- To actively and proactively propose environmental protection projects in order to attract investment from financial funds, international organizations and foreign countries around the world.

e/ Applying science and technology, carrying out innovation and digital transformation, and building environmental technical infrastructure, monitoring networks and databases

- To promote the application of clean technologies, and economical and efficient use of materials, fuels and energy.

- To intensify innovation, digital transformation, technological renovation and transformation, and application of BAT and high technologies in all sectors and fields in order to protect the environment and conserve the nature and biodiversity.

- To apply scientific and technological advances brought about by the Fourth Industrial Revolution, digital transformation, information technology, remote-sensing technology and other modern technologies in environmental management, monitoring, supervision and warning activities; to intensify the provision of online public services for environment-related administrative procedures.

- To promote the application of solid waste treatment technologies, giving priority to advanced, modern and environmentally friendly technologies, recovery of energy, and complete and efficient reuse, recycling and treatment of solid wastes and hazardous wastes, thereby preventing environmental pollution and reducing the volume of buried solid wastes.

- To develop and apply modern and uniform technologies in environmental monitoring and warning activities, especially in areas with intensive waste sources and environmentally sensitive areas.

- To apply modern technologies in developing environmental databases in a uniform, complete, updated and shared manner and to be interconnected among administration levels and sectors; to ensure prompt provision of environmental information; to intensify digital transformation and digitalization of environmental databases and information.

- To further accelerate scientific and technological research and application in environmental protection; to invest in physical foundations and human resources for environmental research and training agencies.

- To promote the development of Vietnam's environmental industry to be capable of handling environmental issues arising in the process of national industrialization and modernization and international integration.

g/ Entering into international cooperation on environmental protection

- To take the initiative in participating in negotiations for and shaping of international commitments in issues concerning environment, climate change, biodiversity and plastic wastes; to organize the implementation of treaties and international commitments in the field of environment to which Vietnam is a contracting party; to facilitate the implementation of agreements on cooperation, technical assistance, capacity building and technology transfer, and international projects on environmental protection.

- To promote cooperation with bilateral and multilateral partners, international financial institutions and international organizations, etc., in order to provide support in terms of resources (financial, technical, technological and capacity building) for the realization of COP26 commitments and the achievement of sustainable development and green transition goals.

6. Organization of the implementation of the Master Plan

a/ The Ministry of Natural Resources and Environment shall:

- Organize the announcement of the Master Plan after it is approved by the Prime Minister.

- Direct and urge localities in organizing the implementation of the Master Plan's contents, and formulate and implement projects falling under its responsibility.

- Review and summarize proposals on adjustment or addition of national- and regional-level centralized waste treatment zones so that they can satisfy the criteria and orientations specified at Point c, Clause 4, Article 1 of this Decision for reporting to the Prime Minister for consideration and decision.

- Organize the evaluation of the implementation of the Master Plan and summarize implementation results for reporting or proposing adjustment of the Master Plan to the Prime Minister for consideration and decision.

- Coordinate with the Ministry of Planning and Investment and localities in determining locations of national- and regional-level centralized waste treatment zones.

b/ The Ministry of Planning and Investment shall:

- Assume the prime responsibility for, and coordinate with the Ministry of Natural Resources and Environment and provincial-level People's Committees in, including regional-level centralized waste treatment zones in regional master plans.

- Review and summarize medium-term and annual public investment plans before submitting them to competent authorities for consideration and incorporation thereof in programs and projects approved by competent agencies for the implementation of the Master Plan in accordance with the law on public investment.

c/ The Ministry of Finance shall summarize proposals of ministries and central agencies and consider the state budget's balancing capacity for proposing competent authorities to allocate central budget funds for recurrent expenditures for the performance of the Master Plan's tasks.

d/ The Ministry of Science and Technology shall assume the prime responsibility for, and coordinate with related ministries and sectors in, implementing solutions to intensify scientific and technological research and application for environmental protection based on the orientations and contents of the Master Plan; and take measures to prevent the import of old, obsolete, waste-generating and material- and energy-inefficient technologies.

dd/ The Ministry of Public Security shall direct and organize the prevention and combat of environmental crimes and violations of the laws on environmental protection and nature and biodiversity conservation.

e/ Other ministries and sectors shall assume the prime responsibility for, and coordinate with the Ministry of Natural Resources and Environment, related ministries and sectors, and localities in, allocating resources and proposing the formulation and implementation of environmental protection policies and solutions according to their assigned functions and tasks in order to implement the Master Plan's contents.

g/ Provincial-level People's Committees shall direct and organize the performance of the following tasks:

- Formulating and updating plans on zoning of environmental areas and conservation of nature and biodiversity in their localities; plans on locations, scale and types of wastes and expected waste treatment technologies, and receiving capacity of national- and regional-level centralized waste treatment zones; and incorporating orientations for building national- and provincial-level environmental monitoring and warning networks set in the Master Plan in provincial master plans and organizing the implementation thereof.

- Implementing the Master Plan's contents in their localities; formulating and implementing projects under the responsibility of their localities; evaluating the implementation of the Master Plan in their localities, and reporting thereon to the Ministry of Natural Resources and Environment for summarization; allocating medium-term and annual public investment funds for the implementation of the Master Plan in accordance with law.

- Issuing decisions on determination of locations and boundaries of strictly protected zones and low-emission zones in their localities as specified in provincial master plans.

- Allocating land areas for national-, regional- and provincial-level centralized waste treatment zones; allocating land areas for construction and operation of centralized waste treatment zones in their localities; allocating funds or seeking or mobilizing investment from economic sectors in the construction and operation of waste collection, storage, transshipment, transport and treatment systems as well as public works and equipment serving waste management in their localities.

- Reviewing centralized waste treatment zones in localities:

+ Centralized waste treatment zones subject to upgrading and renovation, which are those satisfying the criteria for national-, regional- or provincial-level centralized waste treatment zones and conforming to master plans approved by competent authorities before the Master Plan is approved, but falling into one of the following cases: (i) not applying an appropriate treatment technology; and (ii) failing to satisfy environmental protection requirements.

+ Centralized waste treatment zones that are subject to operation termination as scheduled and have to undergo environmental rehabilitation and restoration as they are no longer conformable with orientations on the scale, type and service scope of national-, regional- or provincial-level centralized waste treatment zones, and fall into one of the following cases: (i) having been shut down and no longer being capable of receiving wastes; (ii) not being in line with master plans approved by competent authorities or the approved National Master Plan on Environmental Protection; (iii) failing to ensure environmental safety distances; and (iv) being located in areas frequented by inundation or prone to inundation caused by sea level rise.

- Reviewing and establishing provincial-level environmental monitoring and warning networks that are compatible with the national-level environmental monitoring and warning networks; and organizing the implementation of environmental monitoring programs in their localities.



- Reviewing and updating data on actual status and orientations for zoning of environmental areas; establishing nature and biodiversity protection and conservation zones; forming centralized waste treatment zones; and including environmental monitoring and warning networks in the environmental information system under regulations.

**Article 2.** This Decision takes effect on the date of its signing.

The Minister of Natural Resources and Environment, other ministers, heads of ministerial-level agencies, heads of government-attached agencies, chairpersons of provincial-level People's Committees, and heads of related agencies shall implement this Decision.-

*For the Prime Minister*  
Deputy Prime Minister  
TRAN HONG HA

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