

Part II. OTHER DOCUMENTS

THE PRIME MINISTER

Decision No. 929/QĐ-TTg of June 22, 2010, approving the Strategy for hydrometeorological development through 2020

THE PRIME MINISTER

Pursuant to the December 25, 2001 Law on Organization of the Government;

Pursuant to the National Assembly Standing Committee's December 10, 1994 Ordinance on Exploitation and Protection of Hydrometeorological Works;

Pursuant to the Government's Resolution No. 27/NQ-CP of June 12, 2009, on a number of urgent measures for the state management of natural resources and environment;

At the proposal of the Minister of Natural Resources and Environment,

DECIDES:

Article 1. To approve the Strategy for hydrometeorological development through 2020 (below referred to as the Strategy) with the following principal contents:

I. VIEWPOINTS

1. The hydrometeorological sector occupies an important position in socio-economic development, defense and security consolidation, especially in natural disaster prevention and

mitigation. One step ahead should be taken in the investment in the hydrometeorological sector in order to promptly and accurately provide information and scientific grounds on hydrometeorology for sustainable national development in the context when natural disasters become more and more severe and on the rise due to climate change.

2. To develop the hydrometeorological sector in a synchronous manner toward modernization; to take investment in science, technology and human resource training as major solutions to development, based on the inheritance and maximum promotion of existing resources; to exploit to the utmost scientific and technological achievements at home while selectively applying advanced scientific and technological achievements in the world.

3. To renew the modes of service provided by the hydrometeorological sector in the direction that the State shall supply hydrometeorological information and data to meet the requirements of public service, natural disaster prevention, protection of the life and property for the entire society; and at the same time encourage the socialization and commercialization of hydrometeorological activities and increasingly use hydrometeorological information in production, business and service activities, aiming to achieve practical socio-economic efficiency.

II. OBJECTIVES

1. General objectives

By 2020, the Vietnamese hydrometeorological sector will reach Asia's

advanced scientific and technological level, being capable of conducting basic surveys and hydrometeorological forecasts in service of natural disaster prevention and mitigation, socio-economic development, defense and security maintenance, rational exploitation and use of natural resources and environmental protection in the period of accelerated national industrialization and modernization.

2. Specific objectives

a/ Hydrometeorological observation

- By 2015, the hydrometeorological observation network will be developed comprehensively with the station density increasing at least by 50% over the current figure and 75% of the stations within the hydrometeorological observation network of the Ministry of Natural Resources and Environment being automated.

- By 2020, the hydrometeorological observation network's station density will reach the rate of developed countries and over 90% of the observation stations will be automated while enhancing the distant measurement systems, ensuring uninterrupted monitoring of developments in weather, climate, water resources, supplying adequate data for hydrometeorological forecasts by advanced methods and meeting other demands.

b/ Hydrometeorological communications and forecasts

- To modernize and automate the hydrometeorological data transmission systems with higher speed and wider bands, meeting the requirements of developing forecasting technologies and exchanging data within and without the sector.

- To increase forecasting quality and duration:

+ To ensure that the accuracy of daily weather forecasts will reach 80-85%;

+ To increase the duration of storm and cold spell forecast up to 3 days with the accuracy reaching Asia's advanced level;

+ To increase the duration of flood forecasting and warning for systems of big rivers in the northern region up to 2-3 days, the central region, up to 2 days, and the southern region, up to 10 days with the accuracy of 80-85%;

+ To raise the quality of 10-day, one-month and season hydrometeorological forecasts for different regions nationwide.

- To diversify forecasts:

+ Daily and 5-7 day marine hydrometeorological forecasts;

+ Extremely short hydrometeorological forecast (6-12 hours), particularly rainfall forecasts; flash flood, whirlwind, storm and waterspout warning;

+ Hydrometeorological forecasts in service of economic and social affairs.

c/ Hydrometeorological data processing and storage

- By 2015, to fully automate the receipt, examination, adjustment and provision of hydrometeorological data; to digitalize 75% of written hydrometeorological documents; to store hydrometeorological data on modern electronic information systems.

- By 2020, to fully digitalize written hydrometeorological documents, to finalize the modern hydrometeorological data bank and increase the techno-economic value of hydrometeorological data.

d/ Supply of hydrometeorological information and data

- To heighten the role of hydrometeorological and climate change information applied to socio-economic domains, aiming to rationally tap favorable natural conditions and limit damage caused by unfavorable conditions and climate change.

- To form a special-use hydrometeorological service system with participation of various ministries, branches, localities and economic sectors.

- To increase propagation and dissemination of knowledge on hydrometeorology and climate change.

III. TASKS

1. To formulate a system of legal documents on hydrometeorology

- To draft the Law on Hydrometeorology.

- To set up a comprehensive system of sub-law documents and mechanisms and policies for hydrometeorological development.

- To establish a legal framework for the operation of hydrometeorological service providers.

2. To develop a modern and synchronous hydrometeorological sector

a/ To develop and automate the hydrometeorological observation system

- To develop a multi-sector hydrometeorological measurement system: basic national hydrometeorological networks, special-use networks (of sectors and localities) and voluntary observation networks.

- To supplement and amend the planning on the network of basic hydrometeorological stations within the national system of natural resource and environment observation, based on international standards and regulations; to increase the measurement station density as required by the development of advanced hydrometeorological forecast technology.

- To automate the systems of hydrometeorological measurement in combination with on-spot measurement and distant measurement with instant data transmission.

- To increase aerial observation by modern equipment, establishing the system of scanner wind measurement and thunderbolt location.

- To synchronously consolidate the weather rada systems together with data processing technologies in combination with high-density rain measurement system development.

- To consolidate and develop climate and climate change-supervising networks on the basis of existing hydrometeorological stations.

- To establish a uniform technical inspection and examination system on the entire national network, special-use networks and voluntary observation networks.

- To maintain and develop the hydrometeorological measurement means-inspecting systems. To develop a system of hydrometeorological measurement means-manufacturing and repairing establishments.

- To increase hydrometeorological surveys, especially upon occurrence of natural disasters.

b/ To develop and modernize the hydrometeorological information and

communications system

- To upgrade Vietnam's global meteorological information network; to develop bilateral hydrological information channels with countries sharing river basins with Vietnam.

- To establish satellite hydrometeorological information system, ensuring smooth two-way hydrometeorological information receipt and transmission in all circumstances.

- To establish a synchronous, modern and multi-media domestic information and communications network.

- To complete a system to supply hydrometeorological forecast information for central and local natural disaster prevention and control steering bodies and the mass media.

- To open more hydrometeorological service information channels.

- To build establishments producing radio or television hydrometeorological programs.

c/ To develop and modernize hydrometeorological forecasting technology

- To develop and apply hydrometeorological forecast models for Vietnam; to study the building of new models and methods of exploiting and using digital forecast products.

- To increase international cooperation for stable supply of analytical and forecasting data of global models from world major forecast centers.

- To develop data processing and analyzing systems, to accumulate and assimilate other data sources in order to increase the hydrometeorological analysis and forecast capability.

- To build modern hydrometeorological forecast models for river basins in association with systems of processing information and data from automatic measurement stations and other sources (weather forecast models, radar and satellite information).

- Hydrological forecasts exclusively for estuaries, flood forecasts, forecasts in service of reservoir operation, forecasts for key sectors and regions.

- Marine hydrometeorological forecasts on the basis of combining oceanographic element forecasts and weather forecasts.

- Forecast of natural disasters of hydrological origin on the basis of applying advanced methods and technologies; to experimentally set up a number of automatic flood-and flash flood warning systems.

d/ To consolidate the system of forecasting organizations

- To consolidate the system of forecasting organizations at central, regional and provincial levels.

- To improve the organization of the Central Hydrometeorological Forecast Center to be capable of receiving, exploiting and using modern technologies, supplying hydrometeorological forecast information and data for regional centers and special-use forecast centers.

- To organizationally consolidate regional hydrometeorological stations and provincial hydrometeorological centers to be capable of providing forecasts for production and natural disaster prevention and control in localities.

To set up systems to provide

hydrometeorological forecast information and services with decentralization between central and local levels for public use and service provision at request.

e/ To develop systems of hydrometeorological data receipt, processing, storage and supply

- To establish hydrometeorological data-correcting, -editing and -storing systems nationwide with modern technologies. All data from different sources will be examined, corrected and edited according to uniform process and standards.

- To establish uniform and standard hydrometeorological and climate change databases of legal values by world standards in combination with national resource and environment databases. To build hydrometeorological archives by national standards.

- To build central and local hydrometeorological data supply systems with modern information technology, meeting state management and service requirements.

3. To enhance specialized and theme hydrometeorological activities

a/ To enhance hydrometeorological information for public use and natural disaster prevention and control

- To organize systems for rational and efficient supply of information to central and local users.

- To survey and assess forecast results and hydrometeorological service effectiveness. To collect and systematize data on consequences of natural disasters and climate change.

b/ To enhance hydrometeorological information to meet socio-economic demands

- To enhance agro-hydrological information to develop a diverse and sustainable agriculture adaptable to climate change conditions, ensuring national food security.

- To develop aviation meteorology with a view to monitoring and forecasting dangerous weather phenomena, ensuring aviation safety.

- To consolidate and develop networks of radiation observation stations to meet requirements for research into clean energy and renewable energy. To enhance the application of hydrometeorological information to electricity production and distribution administration.

- To develop hydrological observation networks exclusive for reservoir operation, water supply management, flood and draught prevention and control.

- To develop hydrometeorological observation networks on waterway and land routes in order to monitor and check hydrometeorological conditions; to enhance forecasts in service of traffic control and administration on important routes, ensuring traffic safety.

- To develop hydrometeorological measurement networks at sea, to establish measurement stations on ships and offshore oil-rigs in service of sea navigation, oil and gas and marine resource exploitation.

- To enhance hydrometeorological observation networks in large urban centers in service of forecasting and settling matters related to flooding and air pollution.

- To develop special-use hydrometeorological observation networks in localities according to their respective peculiarities in order to raise the

capabilities of monitoring, forecasting and preventing natural disasters and meeting socio-economic requirements.

4. To enhance the application of hydrometeorological information in response to climate change

- To implement the state-level scientific and technological program on climate change under the national target program on response to climate change.

- To develop, update and disseminate climate change and seawater rise scenarios for Vietnam, which serve as a basis for ministries, sectors and localities to formulate plans of actions in response to climate change.

- To work out programs on dissemination and application of information on hydrometeorological and climate change; to incorporate climate change-related matters in socio-economic management and development.

5. To complete the system of documents on technical management of hydrometeorological activities

- To set up systems of national standards and regulations on hydrometeorology.

- To formulate hydrometeorological processes and technical guidance.

- To study the application of international standards to the management of hydrometeorological activities at different levels.

IV. SOLUTIONS, KEY SCHEMES AND PROJECTS

1. Solutions

a/ To enhance the hydrometeorological

sector's state management capacity

- To consolidate the organizational apparatus in association with solutions to heighten the capabilities of cadres, civil servants, public employees and laborers of the hydrometeorological sector.

- To renew the state management mechanism for the hydrometeorological sector suitable to the technological development, commercialization and socialization of hydrometeorological activities.

- To organize the system of inspection and examination of the implementation of state regulations on hydrometeorological activities and climate change.

b/ To organize hydrometeorological service activities towards commercialization and socialization

- To organize service activities at professional units, aiming to unify the commercial provision of hydrometeorological services from central to local level.

- To formulate the mechanism for, and organize the socialization of hydrometeorological activities.

c/ To enhance research into and develop hydrometeorological science and technology

- To intensify research into application of modern technologies of hydrometeorological forecast, measurement, data correction, editing and calculation; to evaluate water resources, climate resources, climate change and its impacts.

- To actively participate in research into global matters on hydrometeorology and climate change.

d/ Human resource development

- To formulate policies on attraction, preferential treatment and employment of highly qualified human resources. The State will reserve a satisfactory number of scholarships for training of hydrometeorological human resources in countries with advanced science and technologies.

- To finalize the planning on, and raise the capacity of hydrometeorological training establishments towards diversification of training forms in association with renewal of training programs, contents and methodology suitable to the trend of new technology development.

- To renew training in the use and exploitation of hydrometeorological and climate change information in relevant training disciplines.

- To draw up plans on training and fostering of hydrometeorological officials, attaching importance to the contingent of specialized cadres, meeting requirements for efficient exploitation and use of modern equipment and technologies.

e/ Fund raising

- To increase state budget investment; to raise funds from various sources through finance, grant and other forms.

- To increase revenues from commercial hydrometeorological activities.

f/ International cooperation

- To step up activities as a member of the World Meteorological Organization and other relevant international organizations which Vietnam has joined.

- To efficiently exploit bilateral and multi-lateral international relations on

hydrometeorology and climate change.

2. Key schemes and projects

a/ Schemes and projects on formulation of legal documents

- Project on formulation of the Hydrometeorology Law, implementation duration: 2010-2011.

- Scheme on formulation of legal documents guiding the Hydrometeorology Law, implementation duration: 2011-2012.

b/ Schemes and projects on formulation of technical standards, norms, processes and instructions

- Project on formulation of systems of national technical standards and regulations for hydrometeorology, implementation duration: 2010-2011.

- Project on formulation of technical processes and instructions on hydrometeorological activities, implementation duration: 2010-2012.

c/ Development investment schemes and projects

- Scheme on modernization of forecasting technologies and hydrometeorological observation networks in the 2010-2012 period, implementation duration: 2010-2012

- Scheme on modernization of the hydrometeorological sector till 2015, implementation duration: 2010-2015.

- Scheme on increased application of hydrometeorological and climate change information, implementation duration: 2012-2014.

- Scheme on renewal of human resource training and employment for the

hydrometeorological sector, implementation duration: 2010-2012.

- Scheme on modernization of the hydrometeorological sector till 2020, implementation duration: 2016-2020.

V. ORGANIZATION OF IMPLEMENTATION

1. The Ministry of Natural Resources and Environment shall:

- Organize and direct the implementation of the contents of the Strategy; guide ministries, sectors and localities, based on their respective functions and assigned tasks, in formulating and implementing programs, plans, schemes and projects in line with the objectives, contents and solutions of this Strategy.

- Assume the prime responsibility for, and coordinate with concerned ministries, sectors and localities in, reviewing, making statistics on, evaluating and listing prioritized investment schemes and projects.

- Assume the prime responsibility for, and coordinate with concerned ministries, sectors, localities and functional bodies in, inspecting and examining the implementation of this Strategy; make annual and five-year preliminary and final reviews of the implementation of the Strategy; propose The Prime Minister to adjust the objectives and contents of the Strategy, when necessary.

2. The Ministry of Planning and Investment and the Ministry of Finance shall balance,

allocate capital and guide the use of five-year and annual state budget funds for materialization of the contents of the Strategy.

3. The Ministry of Finance shall assume the prime responsibility for, and coordinate with the Ministry of Home Affairs and the Ministry of Natural Resources and Environment in, finalizing financial mechanisms and policies as well as financial management mechanisms in the hydrometeorological domain towards giving autonomy and accountability in task performance, apparatus organization of, payroll and finance to public non-business units performing state-assigned hydrometeorological tasks; and formulate policies to encourage economic sectors to participate in hydrometeorological service activities.

4. Ministries, sectors and localities shall, based on their respective functions and assigned tasks, propose and organize the implementation of schemes and projects in line with the objectives, tasks and solutions of this Strategy.

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

Article 3. The Minister of Natural Resources and Environment and other ministers, heads of ministerial-level agencies, heads of government-attached agencies and chairpersons of provincial-level People's Committees shall implement this Decision.-

Prime Minister

NGUYEN TAN DUNG