# LAO PEOPLE'S DEMOCRATIC REPUBLIC PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

National Assembly

No. 36/NA Vientiane Capital, 13 Nov 2017

# THE LAW ON METEOROLOGY AND HYDROLOGY Chapter I General Provisions

### **Article 1. Objectives**

This Law defines principles, rules, and measures on the management, monitoring and evaluation of meteorological and hydrological activities in order to ensure that the work in this field is expanded, modernized, effective and efficient. It aims to prevent and reduce the impacts of natural disasters on lives and properties of the state, public and individuals. Its purpose is also to ensure a timely and accurate data provision that can be integrated at a regional and international level, which will contribute to the national socio-economic growth in line with the green and sustainable development and national security.

### Article 2. Meteorology and Hydrology

**Meteorology** is a scientific study of the air in the atmosphere and the relationship between ocean and land.

**Hydrology** is a scientific study of the quantity and quality, movement and distribution cycles of surface water, underground water and water in the atmosphere.

### **Article 3. Definitions**

The terms used in this Law shall have the meaning ascribed below:

1. Meteorological and Hydrological Factors refer to data or information on meteorology and hydrology;

- 2. Temperature refers to a measured quantity that indicates the hotness and coldness of the air. Its unit of measurement is expressed in either degree Celsius(°C), Kelvin (°K), Fahrenheit (°F), or Rankine (°R).
- **3. Surface meteorology** refers to the climate conditions measured vertically from 12 meters to the ground.
- 4. Monsoon refers to a seasonal wind that reverses its direction from one season to another.
- **5.** Aviation meteorology refers to the monitoring and collecting of air factors and climate conditions to support air transport;
- **6. Agro-meteorology** refers to the monitoring and collecting of meteorological factors that affect the growth of crops, trees, animals, including diseases, pests and insects;
- 7. Climate phenomenon refers to a change of air factors during a certain period of time;
- 8. Atmospheric Layers refer to layers of the atmosphere which comprise of four layers. The first one is troposphere which covers from the earth's surface vertically up to 11km. Stratosphere layer extends upwards from 11km to 50km. Mesosphere layer covers from 50km to 90km and the thermosphere layer extends from 90km to 120km above the earth's surface.
- 9. Visibility refers to visible distance from one point to another on a horizontal plane;
- **10. Network of meteorological and hydrological stations** refers to the network of meteorological and hydrological stations, established from central to local levels;
- 11. National Warning Center refers to a station that monitors climate conditions, water level and earthquake, as well as analyzing, forecasting and issuing early warnings on potential extreme weather conditions;
- **12. Humidity** refers to the quantity of water vapor present in the air, calculated in percentage in 1 cubic centimeter;
- 13. Volcano ash refers to dust created by volcano eruption and flies into the atmosphere;
- **14. Air pressure** refers to the weight of air impacting the earth surface, calculated in milllibars (mb), and in hPa;
- **15. Vapor** refers to vapor from water sources, depending on the temperature of the surface and amounts of water in the air, calculated in mm;
- 16. Water in the air refers to water vapor present in clouds before it become rain;
- 17. Sunlight duration refers to the duration in a day that has sunlight, calculated in hours;

- **18. Solar power** refers to value of the sunray heat, calculated in calorie centimeter cal/cm2.s;
- **19. River cross-section** refers to the area of stream gauging point, which measures the depth from surface to river bed with a constant distance from one river bank to another, measured in square meters.

### Article 4. Government Policy on Meteorological and Hydrological activities

The government supports meteorological and hydrological activities by creating enabling environment for these activities such as human resource development, construction and modernization of stations that meet international standards, provision of knowledgeable and capable personnel, as well as modern instruments, along with necessary budget for the implementation of strategies and programs for each period.

The government supports and encourages domestic and international individuals, entities and organizations to cooperate, contribute and provide data and information on meteorological and hydrological activities.

### Article 5. Basic principles of meteorological and hydrological activities

Meteorological and hydrological activities shall be based on the following basic principles:

- 1. Be consistent with policies, laws, strategies, national socio-economic development plan and national defense and security activities;
- 2. Country-wide centralized and unified management;
- 3. Guaranteed compliance with technical standards and application of modern technologies;
- 4. Assurance of accurate, continuous, swift and timely information provision;
- 5. Be consistent with principles of World Meteorology Organization.

#### Article 6. Obligations of meteorological and hydrological activities

Individuals, entities and organizations are obligated to contribute to meteorological and hydrological activities such as the safeguarding of stations, including equipment, provision and dissemination of meteorological and hydrological information.

### **Article 7. Scope of Application**

This law applies to domestic and international individuals, entities and organizations that reside in, and are actively involved in meteorological and hydrological activities in Lao PDR.

# **Chapter II**

# Meteorological and Hydrological Strategy

# Article 8. Meteorological and Hydrological Strategy

The meteorological and hydrological strategy is the basic policy for the management, application, maintenance, development and evaluation of the forecasting and early warning activities.

The meteorological and hydrological strategy consists of plans, programs, projects and activities related to this work.

### Article 9. Contents of Meteorological and Hydrological Strategy

The meteorological and hydrological strategy contains:

- 1. The expansion and improvement of the network of meteorological and hydrological stations and the national warning center;
- 2. The provision of necessary equipment and technology to meteorological and hydrological activities;
- 3. The management of meteorological and hydrological activities, including the management plan of the national warning center, shall be conducted continuously and efficiently;
- 4. The management of meteorological and hydrological database system shall be sustainable, continuous and integrated with regional and international system;
- 5. The propagation of data and information on meteorological and hydrological activities;
- 6. The strengthening of the implementation of human resource development on technical knowledge and capacity in managing and monitoring meteorological and hydrological activities.

### Article 10. National Meteorological and Hydrological Strategy

Ministry of Natural Resources and Environment is the body that develops and reviews the meteorological and hydrological strategy at the national level based on the strategy contents defined in Article 9 of this law, and in line with the National Socio-Economic Development Plan at each period. This is accomplished through the collaboration and consultation with related parties at the local, central, regional and international levels. After which, the strategy shall be submitted to the government for endorsement before being presented to the National Assembly for approval.

### Article 11. Provincial Meteorological and Hydrological Strategy

Provincial Department of Natural Resources and Environment is the body that develops and reviews the provincial meteorological and hydrological strategy in line with the provincial and Vientiane Capital Socio-Economic Development Plans and the national meteorological and hydrological strategy at each period. This is accomplished through the collaboration and consultation with related parties at the local level. After which, the strategy shall be submitted to the respective provincial governor and the Vientiane Capital Mayor for endorsement before being presented to the People's Provincial and Vientiane Capital Assembly for approval.

# **Chapter III**

# **Regional and International Cooperation in Meteorology and Hydrology**

#### **Article 12. Regional and International Cooperation**

Regional and international cooperation in meteorology and hydrology is the knowledge exchange and information sharing on lessons learnt, scientific research and technology, as well as enhancing technical capacity building, and the implementation of international conventions and treaties of which Lao PDR is a member.

#### **Article 13. Contents of Regional and International Cooperation**

Regional and international cooperation in meteorology and hydrology contains the following details:

1. Exchanging and providing swift, accurate and timely meteorological and hydrological data and information;

- Encouraging and setting common standards in meteorological and hydrological monitoring, collecting and measuring to ensure continuous generation of meteorological and hydrological statistics;
- 3. Expanding and integrating meteorological and hydrological data to support air, water and land transport, agriculture and other activities;
- Participating in and reporting on meteorological and hydrological activities on a regular basis within the regional cooperation framework and the World Meteorological Organization;
- 5. Participating in scientific research and building technical capacity in meteorological and hydrological field;
- 6. Developing forecasting and early warning systems of natural disasters;
- 7. Fulfilling the obligations under the World Meteorological Organization.

# Article 14. Responsible Party for International Cooperation

Ministry of Natural Resources and Environment in collaboration with Ministry of Foreign Affairs shall be responsible for regional and international cooperation in meteorology and hydrology, while ensuring the compliance with World Meteorological Organization principles and relevant laws and regulations of the Lao PDR.

# Chapter IV

# Meteorological and Hydrological Stations

# Part 1

# **Meteorological Stations**

### **Article 15. Meteorology Stations**

Meteorological Stations are stations equipped with measuring instruments that collect data for analysis, study, research and forecasting of climate changes and earthquake. Meteorology Stations consist of:

- 1. Surface Meteorological Stations;
- 2. Weather Stations;

- 3. Agrometeorological stations
- 4. Meteorological Satellite Receiving Stations;
- 5. Radar Meteorological Stations;
- 6. Mobile Weather Stations;
- 7. Air Quality Monitoring Stations;
- 8. Earthquake Monitoring Stations;
- 9. Aviation Meteorological Stations;
- 10. Upper-Air Weather Stations.

### **Article 16. Surface Meteorological Stations**

Surface Meteorological Stations are stations equipped with full set of instruments in accordance with principles and requirements of the World Meteorological Organization. In lowland areas, the stations are setup at every 100 km, while in upland and mountainous areas they are setup at every 50 km and 25 km respectively. These stations measure, collect and monitor all climate data such as air pressure, temperature, humidity, wind speed and direction, vapor, sunlight duration, solar power, precipitation, clouds, volcano ash, visibility and weather phenomenon.

#### **Article 17. Weather Stations**

Weather stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization. They are setup in geographical areas with changing climate conditions. These stations measure, collect and monitor some climate data such as temperature, humidity, wind speed and direction, vapor, precipitation, clouds, visibility and weather phenomenon.

#### **Article 18. Agrometeorological stations**

Agrometeorological stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization. They are setup in areas where there are research and testing of crop varieties, animal breeding, forests and agricultural productions. These stations measure, collect and observe some meteorological factors that affect the growth of crops, trees, animals, the spread of pests and the changes in soil.

### Article 19. Meteorological Satellite Receiving Stations

Meteorological Satellite Receiving Stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization to receive satellite images and record meteorological factors. These are used in the analysis of climate maps for weather forecasting purpose.

### **Article 20. Radar Meteorological Stations**

Radar Meteorological Stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization. They are setup in the areas where there is no radio frequency signal blockage in order to measure and collect climate information on clouds, rain, wind speed and direction of at current moment as well as at one or two hours in the future within the range of radar.

### **Article 21. Mobile Weather Stations**

Mobile Weather Stations are vehicles equipped with climate measuring instruments that can collect, monitor and surveil areas with high risks of extreme weather such as heavy rains, hails and storms.

### **Article 22. Air Quality Monitoring Stations**

Air Quality Monitoring Stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization. They are located in industrial areas to collect and measure concentration of different particles in the air.

#### **Article 23. Earthquake Monitoring Stations**

Earthquake Monitoring Stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization. They are setup on the ground to measure movements and vibrations of earth's crust caused by natural or man-made events.

#### **Article 24. Aviation Meteorological Stations**

Aviation Meteorological Stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization and International Civil Aviation Organization. They are located within airport areas to measure, collect and monitor weather conditions on wind speed and direction, clouds, visibility, volcano ash and weather situations within the radiance of 1 km of the airport and along flight routes.

### **Article 25. Upper air Weather Stations**

Upper air Weather Stations are stations equipped with instruments in accordance with principles and requirements of the World Meteorological Organization. The stations consist of two parts, namely signal receiving ground stations and transmission instruments that are sent high up in the air to measure and collect meteorological data beyond 12 meters above the ground.

### Part II

# **Hydrological Stations**

#### **Article 26. Hydrological Stations**

Hydrological Stations are stations equipped with instruments that measure and collect data for use in the analysis, study, research and forecasting of changes in terms of quantity and quality of surface water, underground water and water vapor in the air.

Hydrological stations consist of:

- 1. Stream Gauging Point;
- 2. Water Level Measurement Points;
- 3. Precipitation Measurement Points;
- 4. Ground Water Measurement Points;
- 5. Hydrology Laboratory.

The Ministry of Natural Resources and Environment in collaboration with relevant sectors and local authorities shall define regulations on hydrological stations management defined in this Article.

#### **Article 27. Stream Gauging Points**

Stream Gauging Points are stations used to measure water flow velocity, depth, sediment, and temperature. They are also used to collect water samples at the river cross-sectional area.

#### **Article 28. Water Level Measurement Points**

Water Level Measurement Points are stations used to monitor changes in water levels at certain points of a river.

#### **Article 29. Precipitation Measurement Points**

Precipitation Measurement Points are stations used to monitor and measure precipitation in an area.

#### **Article 30. Ground Water Measurement Points**

Ground Water Measurement Points are stations used to monitor and measure changes in quantity and quality of ground water.

#### Article 31. Hydrology Laboratory

Hydrology laboratory is a location equipped with tools and instruments used for the analysis of sediments and chemical substances in water samples to support hydrological activities.

# **Chapter V**

# **Construction of Meteorological and Hydrological Stations**

# Part 1

### **Construction of Government Meteorological and Hydrological Stations**

### Article 32. Meteorological and Hydrological Stations Network Extension Plan

The Ministry of Natural Resources and Environment, in collaboration with relevant ministries and local authorities, at regional and international level, shall develop a plan to extend

the network of meteorological and hydrological stations, in line with the meteorological and hydrological strategy. After which, the plan shall be presented to the government for consideration.

#### Article 33. Construction of Meteorological and Hydrological Stations

The construction of meteorological and hydrological stations shall be compliant with the meteorological and hydrological stations network extension plan, with accompanying study, survey, design, budget plan and defined land use scope.

The Ministry of Natural Resources and Environment is in charge of overall country-wide planning, in collaboration with relevant ministries and local authorities, for meteorological stations such as surface meteorology stations, meteorological satellite receiving stations, radar meteorological stations, earthquake monitoring stations and aviation meteorological stations. The plan shall then be presented to the government for consideration.

Provincial and Vientiane Capital Departments of Natural Resources and Environment, in collaboration with relevant provincial departments and district authorities, shall study and propose a plan to build weather stations, agrometeorological stations, water level measurement points and precipitation measurement points. The plan shall then be presented to provincial governors and the Vientiane Capital Mayor for consideration.

### Part 2

# **Construction of Meteorological and Hydrological Stations by Other Parties**

#### Article 34. Construction of Meteorological and Hydrological Stations by other parties

Entities and organizations wishing to build meteorological and hydrological stations to support ones' projects, such as agrometeorological stations, aviation meteorological stations, stream gauging points, water level measurement points and precipitation measurement points, shall submit an application for a construction permit with supporting documents to the Ministry of Natural Resources and Environment.

Ministry of Natural Resources and Environment shall consider the application within 30 days after the receipt of a complete application.

#### Article 35. Meteorological and Hydrological Stations Construction Conditions

The construction of meteorological and hydrological stations has the following conditions:

- 1. The stations are for a project that has been approved by government competent authorities;
- Availability of a technical staff with at least a diploma in meteorological and hydrological field;
- 3. Availability of a proper location according to technical principles;
- Availability of instruments and tools that meet the World Meteorological Organization's technical standards;
- Other conditions according to the type of station as defined by the Ministry of Natural Resources and Environment.

### Article 36. Issuance of Technical Certificate and Technical Standards

After the completion of station construction and instrument installation, the Ministry of Natural Resources and Environment shall inspect the station against technical standards before issuing a technical certificate to the station owner, as defined in Article 34 in this law.

Details of the issuance of technical certificate and technical standards are defined in separate regulation.

#### Article 37. Rights and Duties of Station Owner

Owners of meteorological and hydrological stations are those with an approval to build such stations. They have the following rights and duties:

- 1. Construct a meteorological and hydrological station and carry out its activities according what has been approved;
- 2. Provide meteorological and hydrological data to natural resources and environment sector accurately, timely and regularly;
- 3. Cooperate with related staff and authorities;
- 4. Safeguard and maintain one's station in good condition that meet international standard;
- 5. Exercise its rights and perform other duties defined by the laws.

# Chapter VI Meteorological and Hydrological Information

# Article 38. Meteorological and Hydrological Information

Meteorological and hydrological information is the result of observing, measuring, collecting and analyzing meteorological and hydrological factors.

# Article 39. Meteorological Information

Meteorological information consists of:

- 1. Air temperature;
- 2. Humidity;
- 3. Wind speed and direction;
- 4. Air pressure;
- 5. Vapor;
- 6. Sunlight duration;
- 7. Solar power;
- 8. Precipitation;
- 9. Cloud;
- 10. Volcano ash;
- 11. Fire smoke;
- 12. Visibility;
- 13. Magnitude of earthquake.

# Article 40. Hydrological Information

Hydrological information consists of:

- 1. Water level;
- 2. Water velocity;
- 3. Volume of water flow (Discharge);
- 4. River Cross section;
- 5. Water quality;
- 6. Water temperature;
- 7. Volume of precipitation;
- 8. Water sedimentation.

### Article 41. Development of Meteorological and Hydrological Database System

Ministry of Natural Resources and Environment shall develop meteorological and hydrological database system to collect, compile, manage and provide accurate, clear and timely meteorological and hydrological data. The system must retain the information for a long period of time safely, while being able to integrate with national water and water resources information system, national climate change information system and national disaster information system.

#### Article 42. Exchange of Meteorology and Hydrology Information

The exchange of information is the provision of information to the regional and international database, creating mutual acknowledgement by all, according to the World Meteorological Organization's principles.

Information received from concerned parties and from meteorological and hydrological stations must be compiled into the central database of Ministry of Natural Resources and Environment as defined in Article 41 in this Law.

The Ministry of Natural Resources and Environment has a duty to exchange meteorological and hydrological information at the regional and international level in line with the World Meteorological Organization's principles.

### Article 43. Access to and Utilization of Meteorological and Hydrological Information

Individuals, entities and organizations can access meteorological and hydrological information, that is officially disseminated in the meteorological and hydrological database system.

Utilization of meteorological and hydrological information for investment or business purpose is subject to prior approval from the managing organization, with fees and service charges applied based on regulations. The usage for students' research purpose is an exception.

# Chapter VII Forecasting and Early Warning

#### **Article 44. Forecasting**

Forecasting is a prediction of a climate and water condition that has a tendency to occur on certain dates and time within a certain location based on meteorological and hydrological information.

Forecasting consists of the meteorological and hydrological forecasting.

# Article 45. Meteorological Forecasting

Meteorological forecasting is a prediction of changes in meteorological factors on a certain date and time in a certain area.

Meteorology forecasting consists of weather forecast, aviation meteorological forecast and agro-meteorological forecast.

Weather forecast is a prediction of changes in weather conditions such as air pressure, temperature, precipitation, wind speed and direction, clouds, typhoon, storms, that can be used to support early warning system.

Aviation meteorological forecast is a prediction of changes in climate conditions within the radiance of 1 km of airports and along flight routes such as wind speed and direction, clouds, visibility, volcano ash and climate phenomenon, that can be used to support flights planning.

Agro-meteorology forecast is a prediction of changes in climate conditions, soil quality, water balance in relation to the growth of crops, trees, animals, including diseases, pests and insects, that can be used to mitigate impacts on agriculture production.

#### **Article 46. Hydrological Forecasting**

Hydrological forecasting is prediction of changes in water level, volume of water flow, sediments and water quality, that can be used to support water management, drought and flood prevention.

### **Article 47. Early Warning**

Early warning is the warning in advance about changes in soil, air and water based on actual forecast of future climate conditions that can harm living things and assets of the state, public and individuals.

The Ministry of Natural Resources and Environment issues an early warning through mass media in a timely manner.

Provincial governors, Vientiane Capital Mayor, district, metropolitan and city governors, once receive the early warning, must warn their citizens under their responsibilities in a timely manner. In case if extreme impacts are being forecasted, there must be an evacuation plan to move people to safe locations.

# **Chapter VIII**

# Prohibition

### **Article 48. General Prohibitions**

Individuals, entities or organizations are prohibited to:

- 1. Build meteorological and hydrological stations without approval;
- 2. Destroy, remove instruments or create obstacles to meteorological and hydrological stations' signals without approval;
- 3. Use meteorological and hydrological information without approval;
- 4. Disseminate false meteorological and hydrological information;
- 5. Other unlawful and regulation violating behaviors.

### Article 49. Prohibitions for Staff and Authorities

Staff and authorities are prohibited to:

- 1. Abuse position in meteorology and hydrology for their own personal, family and group benefits;
- 2. Demand, solicit and receive bribery from individuals, entities and organizations;
- 3. Being careless or ignore duties, causing intentional delay in considering documents;
- 4. Forge documents, use counterfeit documents, disclose government confidentialities;
- 5. Abandon duties and responsibilities assigned;
- 6. Provide or supply meteorological and hydrological information without approval;
- 7. Other unlawful and regulation violating behaviors.

### Article 50. Prohibitions for Station Owners

Meteorological and hydrological stations' owners from other parties are prohibited to:

- 1. Build or operate meteorological and hydrological stations that is not in line with the approval;
- 2. Use instruments and tools that do not meet required standards;
- Provide inaccurate or untimely meteorological and hydrological information to the Ministry of Natural Resources and Environment;
- 4. Bribe meteorology and hydrology staff;
- 5. Refuse to cooperate or obstruct the operation of related staff or authorities;
- 6. Other unlawful and regulation violating behaviors.

# **Chapter IX**

# **Management and Inspection**

# Part 1

# Meteorological and Hydrological Activities Management

# Article 51. Meteorological and Hydrological Activities Management Organization

The government centralizes and unifies the management of meteorological and hydrological activities throughout the country by assigning the Ministry of Natural Resources and Environment to take ownership and collaborate with other ministries, organizations and local authorities who implement this work.

Meteorological and hydrological activities management organization comprises of:

- 1. Ministry of Natural Resources and Environment;
- 2. Provincial/Vientiane Capital Departments of Natural Resources and Environment;
- 3. District, Metropolitan and City Office of Natural Resources and Environment.

# Article 52. Rights and Duties of Ministry of Natural Resources and Environment

In the management of meteorological and hydrological activities, the Ministry of Natural Resources and Environment has the following rights and duties:

- 1. Research and develop national strategy and laws on meteorology and hydrology, propose to the government for endorsement and submit to the National Assembly for consideration;
- 2. Expand strategy, laws and regulations on meteorology and hydrology into detailed plans, programs and projects and implement them;
- Disseminate and implement strategy and laws on meteorology and hydrology throughout the country;
- 4. Develop and improve meteorological and hydrological station network extension plan, and propose to the government for consideration periodically;
- 5. Study and propose to the government to consider building meteorological and hydrological stations under its responsibility;
- 6. Manage meteorological and hydrological station network country-wide;
- Consider approval requests for building meteorological and hydrological stations by other parties;
- 8. Forecast and issue early warning about changes in soil, air and water conditions;
- 9. Provide meteorological and hydrological information to related sectors;
- 10. Supervise, monitor and evaluate the implementation of meteorological and hydrological activities;
- 11. Receive proposals and reports on meteorological and hydrological activities from related parties;
- 12. Suspend, revoke or cancel the construction of meteorological and hydrological station if they fail to meet required standards or violate the laws;
- 13. Build, develop and enhance capacity of meteorology and hydrology personnel;
- 14. Coordinate with concerned ministries, organizations and local authorities on the implementation of its duties;
- 15. Cooperate and collaborate with regional and international community on meteorology and hydrology;
- 16. Summarize and report on the implementation of meteorological and hydrological activities on a regular basis;
- 17. Exercise its rights and fulfill other duties defined by the laws.

# Article 53. Rights and Duties of Provincial and Vientiane Capital Departments of Natural Resources and Environment

In the management of meteorological and hydrological activities, Provincial and Vientiane Capital Departments of Natural Resources and Environment have following rights and duties under their responsibilities:

- 1. Expand and implement national strategy and laws on meteorology and hydrology;
- 2. Disseminate laws and regulations on meteorology and hydrology to their people to increase their understanding and participation in the implementation;
- Research and develop provincial strategy on meteorological and hydrological activities in collaboration with related parties within the provinces, Vientiane Capital and district authorities to propose to provincial governors and Vientiane Capital Mayor for endorsement and present to the People's Provincial and Vientiane Capital Assembly for approval;
- Supervise, monitor and evaluate the implementation of meteorological and hydrological activities by Districts, Metropolitan and City Office of Natural Resources and Environment;
- Study and propose to provincial governors and Vientiane Capital Mayor to consider building weather stations, Agrometeorological stations, Water Level Measurement Points, and Precipitation Measurement Points;
- 6. Encourage, monitor and evaluate activities of meteorological and hydrological stations;
- Receive proposals and reports on meteorological and hydrological activities from related parties;
- Suspend, revoke or cancel the construction of meteorological and hydrological stations if they fail to meet required standards or violate the laws;
- 9. Collect and summarize meteorological and hydrological information;
- 10. Provide meteorological and hydrological information to related sectors;
- 11. Coordinate with departments, district authorities and other related organizations in the implementation of their duties;

- 12. Issue early warnings to provincial and Vientiane Capital authorities in a timely manner;
- 13. Cooperate and collaborate with regional and international community on meteorology and hydrology as assigned by higher level;
- Summarize and report on the implementation of meteorological and hydrological activities to the Ministry of Natural Resources and Environment and Provincial and Vientiane Capital authorities on a regular basis;
- 15. Exercise their rights and fulfill other duties defined by laws.

# Article 54. Rights and Duties of District, Metropolitan and City Offices of Natural Resources and Environment

In the management of meteorological and hydrological activities, District, Metropolitan and City Offices of Natural Resources and Environment have the following rights and duties under their responsibilities:

- 1. Implement laws, plans, programs and projects on meteorology and hydrology;
- 2. Disseminate laws and regulations on meteorology and hydrology;
- 3. Encourage and monitor activities of meteorological and hydrological stations;
- 4. Study and propose to district, metropolitan and city governors to consider building Agrometeorological stations and Precipitation Measurement Points;
- 5. Provide meteorological and hydrological information to district, metropolitan and city governors and related sectors;
- Receive proposals and reports on meteorological and hydrological activities from related parties;
- 7. Issue early warnings to district authorities in a timely manner;
- Summarize and report on the implementation of meteorological and hydrological activities to the Provincial Department of Natural Resources and Environment and district authorities on a regular basis;
- 9. Exercise their rights and fulfill other duties defined by the laws.

# Article 55. Rights and Duties of Other Sectors

Other sectors have rights and duties to coordinate and collaborate with Natural Resources and Environment sector in managing, monitoring and implementing meteorological and hydrological activities, including giving early warnings to people in a timely manner within their mandate.

Agriculture and Forestry sector manages and uses stations and agrometeorological information as stipulated in Articles 18 and 35 of this Law by coordinating with and with the consent of Natural Resources and Environment sector.

Energy and Mines sector manages and uses Water Level Measurement Points, Precipitation Measurement Points and their data as stipulated in item 2 and 3 under Article 26 and Article 34 of this Law by coordinating with and with the consent of Natural Resources and Environment sector.

Public Works and Transport sector uses aviation meteorological and hydrological information by coordinating with Natural Resources and Environment sector.

Labour and Social Welfare sector is responsible for issuing warning and preparing to respond to natural disasters based on meteorological and hydrological data and information by natural resources and environmental sector and shall comply with relevant laws.

Health sector is responsible for issuing warning and responding to outbreak diseases based on meteorological and hydrological data and information by natural resources and environmental sector and shall comply with relevant laws.

### Article 56. Rights and Duties of Local Authorities

Local authorities at provincial, district and village level have rights and duties to manage and monitor meteorological and hydrological stations and implement meteorological and hydrological activities by coordinating and collaborating with Natural Resources and Environment sector, including giving early warning to people in a timely manner within their mandate.

Village authorities have the rights and duties to collect, disseminate and give early warnings to people, as well as safeguarding the meteorological and hydrological stations within their village areas.

# Part 2

# Auditing of Meteorological and Hydrological Activities

### Article 57. Auditing Organization for Meteorological and Hydrological Activities

Auditing organization for meteorological and hydrological activities include:

- 1. Internal auditing organization which is the same organization as the meteorology and hydrology management organization as stipulated in Article 51 of this Law;
- 2. External auditing organization which are the National Assembly, People's Provincial Assembly, Government Inspection Authority and the State Audit Organization.

### Article 58. Contexts of Audit

Auditing meteorological and hydrological activities has the following context:

- 1. The implementation of policies and laws on meteorology and hydrology;
- 2. The organization and operations of meteorological and hydrological activities;
- 3. The responsibilities, behaviors and work methodology of meteorology and hydrology personnel and government staff.

### Article 59. Auditing Approach

There are three approaches in meteorological and hydrological activities audit:

- 1. Regular audit;
- 2. Audit with advance notice;
- 3. Immediate audit.

Regular audit is an audit according to plans, on a regular basis and has properly defined times.

Audit with advance notice is an audit out of plan, when deemed necessary, which requires a notification to the organization to be audited at least twenty-four hours in advance.

Immediate Audit is an audit implemented when it is necessary and urgent without advance notification to the audited organization.

Auditing is done on both documentation and on site where meteorological and hydrological activities are being conducted and must be strictly in compliance with the laws.

# **Chapter X**

# Incentives for Good Performers and Measures for Those Who Violate

### Article 60. Rewards for those with Outstanding Performance

An individual, entity or organization with outstanding performance in implementing this law will be congratulated or receive other incentives based on regulations.

### Article 61. Measures for Those Who Violate

An individual, entity or organization who violates this law, such as the Prohibitions will be educated, disciplined, panelized, charged for civil damage or taking criminal responsibility depending on the level of the case.

#### **Article 62. Educational Measure**

An individual, entity or organization who violates this law for the first time without intention and did not cause major harm nor result in material damages shall be educated or warned.

#### **Article 63. Disciplinary Measure**

Personnel who violate this law such as by ignoring responsibilities on their duties, incorrectly analyzing data and violating prohibition, which are not criminal offences, but fail to report on their actions shall be disciplined depending on different cases as follows:

- 1. Given warnings, with written record filed in personal files;
- 2. Put off promotion, salary increase and other praises;

- 3. Removed from the position or transferred to another responsibility of lower position;
- 4. Dismissed from employment without any incentives/compensation.

Those who violate must also return all assets illegally acquired to the government in full. In case of committing incorrect data analysis intentionally that caused damages to assets, they will be responsible accordingly.

#### **Article 64. Penal Measure**

An individual, entity or organization who violates this law, such as the Prohibition, and the violations are administrative, shall be penalized according to regulations.

### Article 65. Civil Measure

An individual, entity or organization who violates this law that causes damage to stage assets or others shall repay the civil lost caused.

#### **Article 66. Criminal Measure**

An individual, entity or organization who violates this law which constitutes a criminal offense shall be punished accordingly depending on the seriousness of the case.

# **Chapter XI**

# **Final Provisions**

#### Article 67. National Meteorology and Hydrology Day

Lao PDR marks the 23<sup>rd</sup> March as the National Meteorology and Hydrology Day.

Each year, the central and local levels shall create movements and commemorate this Day by appropriate means to promote and raise awareness on meteorology and hydrology.

#### **Article 68. Implementation**

The government of the Lao People's Democratic Republic is the implementer of this Law.

# Article 69. Validation

This Law shall enter into force from the date the President of the Lao People's Democratic Republic issue a decree promulgating this Law and after fifteen days of being published in the Lao PDR Official Gazette.

Any regulations, provisions that are in conflict with this decree shall be void.

President of the National Assembly