

**THE NATIONAL
ASSEMBLY**

Law No. 08/2017/QH14

**THE SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness**

Hanoi, June 19, 2017

LAW

ON IRRIGATION

Pursuant to the Constitution of the Socialist Republic of Vietnam;

The National Assembly hereby adopts the Law on Irrigation.

Chapter I

GENERAL PROVISIONS

Article 1. Scope

This Law addresses irrigation water basic investigations, strategies and planning; investments in development and construction of irrigation works and facilities; management, exploitation or utilization of irrigation works and facilities, and operation of hydropower reservoirs for irrigation water uses; irrigation water utilities or services; protection and assurance of safety for irrigation works and facilities; small-scale and inter-field irrigation works or facilities; rights and responsibilities of organizations or individuals engaged in irrigation operations; responsibilities for state management of irrigation operations.

Article 2. Definitions

For the purposes of this Law, terms used herein shall be construed as follows:

1. *Irrigation* is defined as a set of measures for retention, storage, regulation, transfer, diversion, distribution, supply, application or administration, and drainage of water for crop, fish, aquacultural and salt production purposes, which is incidental to the supply and drainage of water for non-agricultural household or domestic and other industrial purposes, and contributes to prevention and control of natural disasters, environmental protection, adaptation to climate change, and water resource security.

2. *Irrigation operation* is comprised of irrigation water basic investigation, strategy and planning; investment in development and construction of irrigation works and facilities; management and utilization of irrigation works and facilities, and operation of hydropower reservoirs for irrigation water uses; irrigation services; protection and guarantee of safety for irrigation works and facilities.

3. *Irrigation water work or facility (hereinafter referred to as irrigation project)* is defined as a water infrastructure engineering project, including dams, reservoirs, sluice gates, pumping stations, water channeling, diversion and transfer systems, levees, dykes or embankments, and other structures for irrigation water management, exploitation and operation purposes.

4. *Inter-field irrigation* is defined as a canal, channel, trench, tunnel or pipeline for irrigation and drainage purposes that is built within the distance from a point of handover and receipt of irrigation products and services to an arable field.

5. *Central irrigation water work or facility (hereinafter referred to as central irrigation project)* is defined as a irrigation work or facility located at the starting position of the system for retention, storage, regulation, transfer, diversion, distribution, supply and control of water, or the one located at the ending position of an irrigation and drainage system.

6. *Water channeling, diversion and transfer system* is defined as a system of canals, channels, trenches, pipelines, siphons, tunnels and water bridges for water diversion and transfer purposes.

7. *Dam and reservoir safety* is defined as implementation of design, engineering, management and operation measures for the purpose of assuring safety for dams, reservoirs or other relevant facilities, and safety for people and property downstream of a dam.

8. *Downstream of a dam* is defined as a region being flooded or inundated during the release of water from a reservoir in conformity with regulatory procedures, or during the flood release carried out in case of emergencies or dam failures.

9. *Emergency* is defined as a situation in which rainfall or flood in excess of the designed frequency, or earthquake in excess of the designed standard, occurs in the drainage basin of a reservoir, or in which other impacts threatening dam safety occur.

10. *Owner of an irrigation project* refers to an entity or organization whose rights and responsibilities to represent ownership interests in a state-funded irrigation project are delegated by the state; an organization or individual that invests their own funds in construction of irrigation works or facilities.

11. *Manager of an irrigation project* is defined as a specialized entity performing the function of state irrigation management that is a subsidiary of the Ministry of Agriculture and Rural Development, the People's Committees at all levels or an organization whose rights and responsibilities to represent ownership interests are delegated by the state; a grassroots-level irrigation institution; an organization or individual that invests their own funds in construction of irrigation works or facilities.

12. *Grassroots-level irrigation institution* is defined as an organization established by users or consumers of irrigation products or services that enter into cooperation in development, management or operation of small-scale or inter-field irrigation projects.

13. *Exploitation, operation or utilization of an irrigation project* is defined as operation or utilization of potentials or advantages of an irrigation project for socio-economic development and environmental protection purposes.

14. *Irrigation product or service* is defined as a product or service that is created as a result of operation or exploitation of an irrigation project.

15. *Price of an irrigation product or service* is defined as a sum of money paid for a unit of irrigation product or service.

Article 3. Principles in irrigation operations

1. Correspond to the general irrigation management rules; ensure that irrigation operations are in line with practical conditions of river basins, systems of irrigation projects, administrative subdivisions and serve multiple objectives.

2. Ensure national interests, defence and security; environmental protection and adaptability to climate change; contribution to water resource security and sustainable socio-economic development.

3. Take proactive approaches to creating water sources, retaining, storing, regulating, transferring, diverting, distributing, supplying water, using water for irrigation or draining water between seasons and regions; ensure that production, personal or domestic consumption demands may vary depending on irrigation projects, river basins and conditions of specific regions and the entire country.

4. Use water in an economical, safe and effective manner and for predetermined purposes; ensure that the volume and quality of water generated by irrigation projects meet regulatory standards.

5. Guarantee legal rights and benefits of organizations or individuals in relation to irrigation operations; call for all population's involvement in irrigation operations.

6. Organizations or individuals shall be allowed to use irrigation products or services and must be liable for these products or services in accordance with applicable laws; protect safety for human beings and property from adverse impacts caused during the process of development and operation of irrigation projects.

Article 4. Regulatory policy framework for irrigation operations

1. Prefer investing in development of irrigation projects of special importance, large-scale irrigation projects, or irrigation projects located at minority regions, mountains, islands or regions facing extreme socio-economic difficulties, regions with severe water shortages or regions significantly affected by climate change.

2. Provide tax incentives for organizations or individuals charged with managing or operating or utilizing irrigation projects that supply public irrigation products or utilities in accordance with tax laws.
3. Provide subsidies or support for organizations or individuals for investment in development, repair or improvement of systems of small-scale or inter-field irrigation projects; advanced and water-efficient irrigation systems; advanced and modern irrigation and drainage systems; effluent or wastewater treatment systems that serve water reuse purposes.
4. Provide subsidies or support for investment in improvement or modernization of irrigation projects.
5. Provide financial subsidies for use of irrigation products or services appropriate for respective fields or groups of users.
6. Provide favorable treatment for organizations or individuals providing irrigation products or services when they are needed to support prevention, control or mitigation of drought, water shortage, saltwater intrusion, desertification, flood, inundation or waterlogging.
7. Diversify investment forms; provide incentives or favorable conditions for organizations or individuals to facilitate their investment in development, management and operation of irrigation projects.
8. Provide support for persons directly carrying out or those engaged in irrigation operations to have access to training classes and courses for improvement of their competence; provide incentives and favorable conditions for organizations or individuals in order for them to conduct research on or application and transfer of technologies in irrigation operations.

Article 5. Water efficiency in irrigation operations

1. Economical and effective use of water in irrigation operations shall comply with laws on water resources and the following provisions:
 - a) In the course of setting up the plan and project for construction of irrigation works or facilities, the watershed solution or the solution to water source generation, water loss control, local water use, water recycling and reuse and connection to the inter-regional irrigation system shall be proposed and selected;
 - b) In the course of performing operation and management tasks, an inventory of water resources and water demands shall be made as the basis for preparation and execution of the scheme for regulating, distributing and using water in a reasonable manner, and controlling any water loss;
 - c) Production schemes of water consumption sectors, or selection of crop seasons or types of crops or livestock animals, shall match conditions of water resources and include the plan for economical and effective use of water;

d) Irrigation water shall be used in an economical and effective manner and advanced irrigation technologies shall be preferred.

2. Organizations and individuals shall be responsible for using water in an economical, effective and due manner.

Article 6. Science and technology matters in irrigation operations

1. Advanced technologies shall be applied to improve the capability of forecasting or alerting any changes in water resources, volume and quality of water, drought, water shortage, saltwater intrusion, desertification, flood, inundation, waterlogging, aggradation, soil corrosion or landslide affecting irrigation works and facilities, river banks, seacoasts, impacts caused by climate change and activities taking place within river basins to serve irrigation operations.

2. Advanced technologies shall be applied to save, recycle and reuse water.

3. Scientific research and technological application shall be prioritized to improve efficient operation and management of irrigation projects, prevention and control of natural disasters, adaptability to climate change, conservation of water resources and aquatic ecosystem, and protection of safety for dams or reservoirs.

Article 7. International cooperation in irrigation operations

1. Show respect for independence, sovereignty, territorial integrity, equality and mutual interest in irrigation operations taking place on transnational and transboundary rivers or streams between Vietnam and other countries.

2. Comply with Vietnamese laws and international treaties concerning irrigation operations of which the Socialist Republic of Vietnam is a member state.

3. Exchange information about irrigation operations performed on transnational or transboundary rivers or streams between Vietnam and other countries.

4. Provide preferential treatment for international cooperation in respect of scientific research, technology transfer, training and experience sharing as well as mobilization of resources used in irrigation operations.

5. Play active roles in participating in international organizations relating to irrigation operations.

Article 8. Prohibited acts in irrigation operations

1. Develop and establish irrigation projects in breach of the irrigation planning that has been approved by the competent authority.

2. Dump wastes or sewage within the enclosure of an irrigation project; discharge wastewater in breach of laws and regulations into irrigation projects; perform other acts polluting water existing within irrigation works or facilities.

3. Ruin or, purposely or knowingly, damage irrigation works or facilities.
4. Perform illegal acts, such as blocking, backfilling, digging, or dredging or suctioning mud, sand or gravels from, rivers, canals, trenches, lakes or ponds, which result in impacts on irrigation operations.
5. Operate motor vehicles that exceed the maximum allowable mass on irrigation works or facilities; operate motor vehicles or inland watercraft on irrigation works or facilities without compliance with prohibition signs, except for types of vehicles or transport equipment allowed for traffic participation by laws on road and inland waterway traffic.
6. Hinder audits of irrigation operations.
7. Carry out illegal abstraction of water from irrigation works or facilities.
8. Operate irrigation works or facilities without obtaining permission; operate irrigation works or facilities in breach of regulatory procedures approved by the competent authority.
9. Protest, hinder or disobey the decision issued by a competent entity or person in response to emergencies taking place inside the perimeters of irrigation projects.
10. Encroach upon and illegal use land inside the perimeter of an irrigation work or facility.
11. Perform activities inside the perimeter of a irrigation work or facility without obtaining any license or carry out activities that are not specified in the license to carry out operations referred to in Article 44 hereof.

Chapter II

IRRIGATION BASIC INVESTIGATION, STRATEGY AND PLANNING

Article 9. Irrigation basic investigation

1. The irrigation basic investigation shall be conducted on an annual or unscheduled basis to collect information, build up the database used for scientific research tasks, draw up strategy, plan, proposal and project for development, management, operation and utilization of irrigation works or facilities.
2. The irrigation basic investigation shall mainly focus on the followings:
 - a) Realistic conditions concerning quantity, quality and operational capacity of irrigation works or facilities, and consumption demands for irrigation products or services;
 - b) Realistic conditions concerning the organizational structure and regulatory policy framework that govern irrigation operations;

c) Effects of irrigation works and facilities on environment and people's lives;

d) Collection of information about, observation and monitoring of, volume and quality of water, drought, water shortage, saltwater intrusion, desertification, flood, inundation, waterlogging, aggradation, soil corrosion or landslide affecting irrigation works and facilities, river banks or seacoasts where irrigation works or facilities are located;

dd) Impacts on irrigation operations that result from climate change, drought, water shortage, saltwater intrusion, desertification, flood, inundation, waterlogging, aggradation, soil corrosion or landslide affecting irrigation works and facilities, river banks or seacoasts, and socio-economic development activities carried out on river basins.

3. The Ministry of Agriculture and Rural Development shall conduct irrigation basic investigations and mandate the provincial-level People's Committee to conduct irrigation basic investigations within its local jurisdiction.

4. Authority to approve, release and administer results of irrigation basic investigations shall be prescribed as follows:

a) The Ministry of Agriculture and Rural Development approves, releases and administers results of irrigation basic investigations conducted on its own;

b) The provincial-level People's Committee approves, releases and administers results of irrigation basic investigations conducted by itself.

Article 10. Irrigation strategy

1. Irrigation strategy shall be established for a cycle of 10 years with a vision towards 30 years or over later on, and shall be consistent with the socio-economic development, national defence and security strategy. Irrigation strategy shall be updated or modified whenever there is any change in the socio-economic development, national defence and security strategy, or any significant change resulting from natural disasters.

2. Irrigation strategy shall define directive standpoints, principles, visions, objectives, duties and solutions and necessary arrangements for implementation of irrigation development tasks throughout the entire country.

3. The Ministry of Agriculture and Rural Development shall take charge of setting up and submitting to the Prime Minister the irrigation strategy.

Article 11. Irrigation planning

1. The irrigation planning shall serve as the basis for development, construction, management, operation, utilization and protection of irrigation works or facilities.

2. The irrigation planning shall be categorized as follows:

a) The general irrigation planning covers the whole country, specific regions, river basins, systems of irrigation works or facilities or administrative divisions with a view to dealing with general matters relating to water supply, crop irrigation and drainage, prevention and control of water-related disasters;

b) The specialized irrigation planning covers specific regions, river basins, systems of irrigation works or facilities or administrative divisions with a view to dealing with one of matters like water supply, crop irrigation and drainage; prevention and control of water-related disasters.

3. The region-specific irrigation planning, the planning for irrigation system, the administrative division-based irrigation plan shall align with the national irrigation plan and river basin-based irrigation plan.

4. The irrigation planning shall remain valid for the period of 10 years with a vision for 20 years or more in the future, and shall be subject to a periodic review conducted every 5 years.

5. The irrigation planning shall be modified in either cases where there is any modification of the socio-economic development, national defence and security strategy, irrigation plan or there is any significant change affecting main objectives of the irrigation plan.

Article 12. Principles of setting up an irrigation plan

1. Match the strategy, plan and proposal for socio-economic development, national defence and security, irrigation strategy and irrigation planning.

2. Attach to the infrastructure and other relevant planning.

3. Provide the general management of water resources and ensure consistency with river basins and systems of irrigation works or facilities, adaptability to impacts resulting from climate change and socio-economic development activities occurring in river basins and sustainable development.

4. Serve multiple objectives, ensure the compatibility between exploitation and protection of natural resources, environment, prevention and control of natural disasters. Give special emphasis on supplying water to islands, coastal regions, boundary areas, mountains, highland areas and areas surrounding hydropower reservoirs.

5. Ensure balanced distribution of water across the nation, within specific regions, river basins, systems of irrigation works or facilities or administrative divisions; transfer water from areas with an abundant volume of water to those with a shortage of water; retain and store water occurring in rainy season and water-abundant years for later use in dry season and water-deficit years, respectively.

6. Ensure that entities, organizations or individuals can give their contributing opinions during the process of establishing the irrigation plan.

Article 13. Inclusions of an irrigation planning

1. The irrigation planning shall define developmental orientation, spatial setting and distribution of irrigation resources by the extent specified in the plan.

2. The irrigation planning shall comprise the following scope of works:

a) Analysis and evaluation of natural and water resource conditions, socio-economic conditions, available resources; assessment of current irrigation conditions and results achieved from implementation of the irrigation planning in the antecedent planning period;

b) Forecast of developmental tendencies and scenarios, water sources in the situation where they are impacted by climate change, natural disasters and river basin developments; forecast of advances in science and technology and resources directly affecting irrigation matters;

c) Evaluation of sectoral and regional connection; identification of socio-economic development requirements concerning irrigation aspects; opportunities and challenges for irrigation development;

d) Determination of irrigation development viewpoints and objectives;

dd) Analysis, calculation and formulation of irrigation approaches based on developmental scenarios that may occur throughout the entire nation, specific regions, river basins, systems of irrigation works or facilities and administrative divisions. The plan shall certainly help create, store, balance, regulate and distribute water resources, minimize risks of drought, saltwater intrusion, desertification, flood, inundation, waterlogging, pollution and degradation to water resources and other water-related disasters;

e) Recommended solutions, list of construction works, projects and order of priority; proposal and suggestion of review based on which adjustments to irrigation-related plans may be made to ensure consistency and uniformity;

g) Anticipation of demands for land used for development, construction, modification and improvement of irrigation works or facilities; demands for land used as the ground for storage of materials produced from dredging and expansion of channels or canals;

h) Solutions and resources available for implementation of the irrigation plan;

i) Zoning drawings or plans.

Article 14. Formulation, approval, revision, release, management and implementation of the irrigation plan

1. Responsibilities for formulation and review of the irrigation plan shall be prescribed as follows:

a) The Ministry of Agriculture and Rural Development conducts formulation and review of irrigation plans covering the entire nation, specific regions, river basins and systems of irrigation works or facilities that involve at least two provinces, systems of irrigation works or facilities that are large and complicated within a single province;

b) The provincial-level People's Committee conducts formulation and review of irrigation plans within its local jurisdiction, except for those prescribed by Point a of this Clause.

2. Authority to approve and revise an irrigation plan shall be subject to the following provisions:

a) The Prime Minister approves and revises national-scale irrigation plans;

b) The Minister of Agriculture and Rural Development approves and revises irrigation plans stipulated by Point a Clause 1 of this Article, except for national-scale ones;

c) The provincial-level People's Committee petitions the same-level People's Council to approve and revise the irrigation plan established or reviewed by the Committee itself after obtaining written opinions from the Ministry of Agriculture and Rural Development.

3. Release, management and implementation of an irrigation plan shall be prescribed as follows:

a) Within the duration of 30 days from the date on which the original plan or the revised plan is approved, the Ministry of Agriculture and Rural Development publicly releases details of the original or revised plan as referred to in Point a and b Clause 2 of this Article; the provincial-level People's Committee publicly releases information about the original or revised plan as prescribed by Point c Clause 2 of this Article. Release of details of the irrigation plan shall last during the entire planning period;

b) The Minister of Agriculture and Rural Development manages and conducts the irrigation plan in accordance with Point a and b Clause 2 of this Article; the provincial-level People's Committee manages and conducts the irrigation plan in accordance with Point c Clause 2 of this Article and under the mandate of the Ministry of Agriculture and Rural Development;

c) Organizations and individuals shall be provided with favorable conditions for oversight of compliance with the irrigation plan.

Chapter III

INVESTMENT IN CONSTRUCTION OF IRRIGATION WORKS OR FACILITIES

Article 15. Rules of investment in construction of irrigation works or facilities

1. Investment in construction of irrigation works or facilities shall comply with laws on investment and construction, and other relevant legislation.

2. The Government may invest in irrigation projects of special importance, large-scale irrigation projects and those facing difficulty in mobilizing social resources, reservoirs located areas facing water scarcity; irrigation projects that support national defence, security, prevention and control of natural disasters; irrigation projects located at minority regions, mountains, islands or regions facing extreme socio-economic difficulties, or regions severely affected by climate change.
3. Organizations or individuals obtaining permission for use of irrigation products or services shall be charged with investing in small-scale and inter-field irrigation projects.
4. The Government shall encourage and provide favorable conditions for organizations and individuals to undertake investment or enter into cooperation in development of irrigation projects under a public-private partnership agreement.
5. Development of irrigation projects shall take into consideration capacity for regulating, transferring, distributing or utilizing water between irrigation projects and other water sources.
6. Geological and seismic factors shall be taken into account in detailed calculation of investment in construction of irrigation works or facilities with the aim of ensuring ultimate safety for these projects and human lives.

Article 16. Categorization and grading of irrigation projects

1. Categorization and grading of irrigation projects shall serve the purpose of investment in development, administration, operation and protection of these irrigation projects.
2. Irrigation projects shall be categorized by scale, functions, roles, levels of risks to downstream regions, including irrigation projects of special importance, large-scale irrigation projects, medium-sized irrigation projects and small-scale irrigation projects.
3. Irrigation projects shall be graded by scale, functions, ecological conditions of foundation and engineering requirements, including irrigation projects of special importance, grade-I, grade-II, grade-III and grade-IV irrigation projects.
4. The Government shall provide detailed regulations of this Article.

Article 17. Requirements set out during the process of investment in construction of irrigation works or facilities

1. Investment in construction of irrigation works or facilities shall satisfy the following requirements:
 - a) Accord with the irrigation plan;
 - b) Apply measures to alleviate water loss and reduce land to be used for construction of these irrigation works or facilities;

- c) Take into account connection between irrigation projects, between irrigation projects and other relevant infrastructure projects, and between regions or water sources;
 - d) Ensure that central irrigation projects, and inter-field and closed irrigation projects operate in a synchronous manner within the system of irrigation works and facilities;
 - dd) Duly coordinate the project approach with the non-project approach;
 - e) Provide sufficient resources for safe construction of irrigation works or facilities during the flood proofing or control period;
 - g) Ensure safety for irrigation projects.
2. Projects for maintenance, upgradation and modernization of irrigation works or facilities shall comply with Clause 1 of this Article and ensure that impacts on performance of functions of irrigation projects must be mitigated.

Article 18. Investment in construction of dams and reservoirs

1. Investment in construction of dams and reservoirs shall satisfy requirements set forth in Article 17 hereof and the following provisions:

- a) The general layout and dam structure design shall facilitate control of safety for dams, response to any emergency, and maintain, upgrade and repair dams in case of any damage that may occur;
- b) Procedures for operation of gates and valves, procedures for maintenance of specific parts of dams or reservoirs, together with design documentation, shall be established and approved and handed over to owners of dams or reservoirs upon the project transfer date;
- c) With respect to overflowing occurring at dams or reservoirs with regulating gates and valves, the operational surveillance system, communication and alerting equipment for safety of dams and downstream regions, and dedicated instruments for hydro-meteorological measurement and observation installed at reservoir basins, shall be made in place;
- d) With respect to large dams or reservoirs where uncontrolled overflowing occurs, communication and alerting equipment for safety of dams and downstream regions, and dedicated instruments for meteorological and hydrological measurement and observation installed at reservoir basins, shall be made in place.

2. During the process of executing dam or reservoir construction projects, investors, stakeholders or developers of these projects shall be responsible for preparing the plan for response to emergencies that may happen to these projects or downstream thereof for submission to relevant authorities in order for them to grant their approval of that plan and undertaking activities specified in that plan.

3. Investors, stakeholders or developers of reservoirs shall be responsible for preparing reservoir operational procedures, plans for response to emergencies for submission to relevant competent authorities in order for them to grant their approval prior to retention and storage of water and transfer to organizations or individuals for their operation and management, or to regulatory authorities charged with irrigation, natural disaster prevention and control activities.

4. The Government shall provide detailed regulations of this Article.

Chapter IV

MANAGEMENT, OPERATION OR UTILIZATION OF IRRIGATION PROJECTS AND OPERATION OF HYDROPOWER RESERVOIRS FOR WATER USES

Section 1. MANAGEMENT AND OPERATION OF IRRIGATION PROJECTS

Article 19. Principles of management and operation of irrigation projects

1. Carry out consistent management practices based on the system of irrigation projects and apply these practices to central irrigation projects through inter-field ones; match objectives and functions of the system, and satisfy requirements concerning volume and quality of water for production, personal and domestic uses and for industrial consumption in various economic sectors.

2. Comply with operational procedures approved by relevant competent authorities; prepare contingency plans for response to natural disasters.

3. Ensure fair distribution of benefits, sharing of risks and restriction on adverse effects on other related regions; promote effectiveness in general operation and utilization of irrigation projects, and take advantage of multipurpose characteristics of irrigation systems.

4. Call for involvement of users of irrigation products and services as well as interested parties in management and operation of irrigation projects.

5. Apply high and advanced technologies to management, operation and utilization of irrigation projects.

Article 20. Activities of management, operation and exploitation or utilization of irrigation projects

1. Water management shall mainly focus on the following activities:

a) Collect hydro-meteorological forecasting information; carry out purpose-made hydro-meteorological measurements or observations at their basins; conduct observation, forecast and give sufficient warnings of flood, inundation, waterlogging, drought, water shortage, saltwater intrusion, water volume and quality; make an inventory of water sources within a system of irrigation works and facilities, and an analysis of water consumption demands;

b) Establish and undertake activities necessary for implementation of the plan for water retention, storage, regulation, transfer, distribution, supply, crop irrigation, water drainage and consumption; control water quality and saltwater intrusion; carry out plans for response to natural disasters;

c) Protect environment and quality of water existing inside the perimeter of irrigation projects; inspect and control discharge of sewage or wastewater into irrigation projects;

d) Establish and archive technical documents related to management and distribution of water within a system of irrigation works or facilities.

2. Management of irrigation works or facilities shall mainly focus on the following activities:

a) Measure, observe, monitor, inspect, audit and assess safety of irrigation projects;

b) Manage, conduct maintenance, investment in improvement, construction, modernization of, and deal with and correct any failure or breakdown that may happen to, irrigation projects as well as machinery and equipment thereof; mark the boundary of irrigation projects for security purposes;

c) Make a request to relevant competent authorities to grant their approval and conduct actions specified in the plan for response to natural disaster and the plan for protection of irrigation projects;

d) Establish and archive technical documents related to management of irrigation works or facilities.

3. Economic management of irrigation works or facilities shall mainly focus on the following activities:

a) Conduct establishment, validation and release within appropriate jurisdiction or make a request to relevant competent authorities for their validation and release or approval of application of economic and technical norms to serve the purpose of management and operation of irrigation projects;

b) Conduct formulation and implementation of the plan to supply irrigation products and services;

c) Conclude, carry out the acceptance testing of and discharge contracts for supply and consumption of irrigation products and services;

d) Create the proper organizational model for management, operation and protection of designated irrigation projects and resources;

dd) Make a regular report on evaluation of effectiveness in management, operation and protection of irrigation projects; draw up and conduct implementation of the plan for general

operation of irrigation projects and expansion of the scope of services to be rendered with a view to developing capacity of irrigation projects;

e) Establish and archive asset and financial management documents or records.

Article 21. Responsibilities for management of irrigation projects

1. Responsibilities for management of state-funded irrigation projects shall be subject to the following provisions:

a) The Ministry of Agriculture and Rural Development shall manage irrigation projects of special importance, those of which operation and protection involve at least 02 provinces;

b) The provincial-level People's Committee shall manage or vest the district-level People's Committee with the authority to manage irrigation projects located within its local jurisdiction, based on specific local conditions, unless otherwise prescribed by Point a of this Clause.

2. Organizations or individuals putting their own investment in irrigation projects shall be charged with managing these projects.

Article 22. Responsibilities assumed by owners or operators of irrigation projects

1. Responsibilities assumed by owners or operators of irrigation projects shall be prescribed as follows:

a) Exercise rights and responsibilities legally assigned to owners of irrigation projects;

b) Provide a sufficient amount of finances for maintenance, investment in improvement, construction, modernization of, and handling and correction of any failure or breakdown that may happen to, irrigation projects; marking of the boundary of irrigation projects for security purposes and solutions to increasing effectiveness in management and operation of irrigation projects.

2. Responsibilities assumed by managers of irrigation projects shall be prescribed as follows:

a) Manage operation and protection of irrigation projects where appropriate to their designed objectives and functions, potentials and advantages;

b) Select and contract organizations or individuals obtaining permission for operation of irrigation projects; monitor supply and use of irrigation products and services;

c) Take charge of investigation and assessment of effectiveness in management and operation of irrigation projects on a quinquennial or unscheduled basis; grant decisions under their delegated authority or request owners to make their decisions on improvement, construction, modernization and solutions to increasing effectiveness in management and operation of irrigation projects on the basis of results of such investigation and assessment;

d) Take on other duties as prescribed by applicable laws.

Article 23. Conduct and method of exploitation or utilization of irrigation projects

1. Hosts of exploitation or utilization of irrigation works or facilities shall comprise:

a) Enterprises;

b) Grassroots-level irrigation institutions;

c) Individuals.

2. Organizations or individuals obtaining permission for exploitation or utilization of irrigation projects shall satisfy regulatory conditions imposed by the Government.

3. Entities charged with managing irrigation projects, referred to in Clause 1 Article 21 hereof, shall decide the method for exploitation or utilization of state-funded irrigation projects as follows:

a) Authority to manage and exploit or utilize large-scale irrigation projects or those of special importance shall be accorded to state enterprises and shall be offered throughout the commissioning or duty assignment processes;

b) Authority to manage and exploit or utilize irrigation projects other than those stipulated by Point a of this Clause shall be offered throughout the procurement or commissioning processes.

4. Organizations or individuals putting their own investment in irrigation projects shall be entitled to decide which method of exploitation or utilization thereof is applied.

Section 2. OPERATION OF IRRIGATION PROJECTS AND HYDROPOWER RESERVOIRS FOR WATER USES

Article 24. Processes for operation of irrigation projects

1. Organizations or individuals obtaining permission for exploitation or utilization of irrigation projects shall operate these projects in compliance with processes approved by relevant regulatory authorities.

2. Responsibilities for establishing and revising processes for operation of irrigation projects shall be prescribed as follows:

a) The investor in irrigation projects shall establish operational processes and request relevant regulatory authorities for approval prior to commencement of operation;

b) With respect to irrigation projects that are currently exploited or utilized without operational processes, organizations or individuals obtaining permission for exploitation or utilization of

irrigation projects shall have the burden of preparing their operational processes for submission to relevant regulatory authorities to apply for approval of these processes;

c) With respect to irrigation projects that are currently exploited or utilized in conformity with outdated operational processes, individuals obtaining permission for exploitation or utilization of irrigation projects shall have the burden of revising their operational processes and submitting revised processes to relevant regulatory authorities to apply for their approval of these processes.

3. Authority to approve and publish the processes for operation of irrigation projects shall be subject to the following provisions:

a) The Ministry of Agriculture and Rural Development approves and releases the processes for operation of irrigation projects managed by itself;

b) The provincial-level People's Committee approves or vests the district-level People's Committee with delegated authority to approve or release the processes for operation of irrigation projects that fall under its remit, except those specified by Point a of this Clause and Clause 4 of this Article.

4. Organizations or individuals obtaining permission for direct exploitation or utilization small-scale irrigation projects shall have the burden of establishing and releasing operational processes on their own.

5. The Minister of Agriculture and Rural Development shall provide detailed regulations of this Article.

Article 25. Operation and utilization of irrigation projects for agricultural production purposes

1. Irrigation projects for the purpose of irrigation and water drainage for concentrated rice monocropping fields shall be operated proactively and in a manner that water volume and quality must be assured, and advanced, modern, cost-efficient and effective technical procedures for agricultural production must be applied.

2. Irrigation works or facilities for irrigation or water drainage of upland crops shall be operated in conformity with the following requirements:

a) Crop irrigation and water drainage are carried out in a proactive manner, water volume and quality are assured, and advanced, modern, cost-efficient and effective technical procedures for agricultural production are applied for concentrated cropping areas or cropping areas where rice cultivation fields are converted into upland crop cultivation fields;

b) High and advanced technologies are applied; irrigation technologies appropriate for specific crops are used for saving of water; advanced irrigation practices are duly combined with advanced cropping methods.

3. Irrigation works or facilities for supply and drainage of water for aquacultural production purposes shall be operated in conformity with the following requirements:

a) Water supply and drainage systems get ready for use and meet advanced and modern technical procedures for aquacultural production at intensive aquaculture concentrated areas;

b) Volume and quality of water supplies meet regulations applied for intensive aquaculture concentrated areas;

c) High and advanced technologies are applied for supply and utilization of water for aquacultural production purposes.

4. Operation and utilization of irrigation projects for crop irrigation, supply and drainage of water for other agricultural production purposes shall conform to requirements that water volume and quality must be assured, water must be used in an efficient and effective manner, and demands of different classes of water consumers must be satisfied.

Article 26. Operation of irrigation projects in case of drought, water shortage, saltwater intrusion, flood, inundation or waterlogging

1. Managers of irrigation projects shall be responsible for establishing the plan for response to drought, water shortage, saltwater intrusion, flood, inundation or waterlogging that may occur within localities where these projects are located.

2. In case of drought, water shortage, saltwater intrusion, flood, inundation or waterlogging that may occur, irrigation projects shall be operated subject to the following provisions:

a) Operate under the decision issued by relevant competent authorities in charge of irrigation;

b) In case of drought or water shortage emergencies, supply of water for personal and domestic uses and urgent agricultural demands shall be prioritized;

c) In case of saltwater intrusion emergency, solutions to mitigating adverse impacts on human activities or to satisfying urgent production needs or environmental requirements shall be adopted;

d) In case of flood, inundation or waterlogging emergencies, safety for irrigation projects during their operation shall be assured, and other actions to respond to such emergencies must be taken to mitigate loss of life and property.

Article 27. Operation of dams and reservoirs

1. Organizations or individuals obtaining permission for exploitation of dams and reservoirs shall assume the following responsibilities:

- a) Operate them in conformity with reservoir or inter-reservoir operation processes approved by relevant regulatory authorities;
 - b) Consult hydro-meteorological forecasts, specialized hydro-meteorological observation data and other relevant information to predict and operate reservoirs in response to practical situations to match water consumption and dam safety demands;
 - c) Regularly make an inventory of water resources retained in reservoirs, and a forecast of drought, water shortage and saltwater intrusion for water retention and storage; at the end of the rainy season, make an inventory of water resources remaining in reservoirs and irrigation systems with the aim of establishing the plan for regulation, supply and consumption of water;
 - d) In case of drought, water shortage, saltwater intrusion, flood, inundation or waterlogging emergencies, operate single reservoirs or interconnected multiple reservoirs under the decision issued by state regulatory authorities having competency in irrigation issues.
2. Managers of dams or reservoirs shall be responsible for directing, conducting inspection and supervision of, and compliance with reservoir or inter-reservoir operational processes approved by state regulatory authorities.

Article 28. Operation of hydropower reservoirs or operation of interconnected multiple reservoirs for water uses

1. Processes for operation of hydropower reservoirs or operation of interconnected multiple reservoirs for water uses shall comply with other laws on water resources and the following requirements:
 - a) Cope with water consumption demands arising downstream of reservoirs; prefer supplying water for personal, domestic uses and agricultural production purposes;
 - b) Proactively make a projection about water supply capacity and develop approaches to regulating water under normal or abnormal weather conditions with due account taken of the climate change factor.
2. Single reservoir or interconnected multiple reservoirs for water uses shall be operated in conformity with operational processes approved by state regulatory authorities and the following requirements:
 - a) Regularly make an inventory of water retained in reservoirs and a forecast of drought, water shortage and saltwater intrusion in order to establish the plan for retention, storage, regulation and distribution of water used for meeting water consumption demands of downstream of reservoirs;
 - b) In case of drought or water shortage emergency, the residual volume of water inside reservoirs shall be used to meet personal, domestic, agricultural production and other pressing demands;

- c) Consult hydro-meteorological forecasts, specialized hydro-meteorological observation data and other relevant information to predict and operate reservoirs where relevant to practical situations to match water consumption demands and downstream currents;
 - d) In case of drought, water shortage, saltwater intrusion, flood, inundation or waterlogging emergencies, operate single reservoirs or interconnected multiple reservoirs under the decision issued by state regulatory authorities.
3. Operation of hydropower reservoirs that are run under the day-based regulating system shall ensure normal operation of irrigation projects located downstream thereof.
 4. Prior to carrying out water release, organizations or individuals shall take responsibility for notifying local and other relevant authorities in conformity with the operational processes approved by state regulatory authorities.

Chapter V

IRRIGATION SERVICES OR UTILITIES

Article 29. Irrigation service activities

1. Irrigation service refers to provision and use of irrigation products and services between organizations or individuals supplying irrigation products or services and those obtaining permission for consumption of irrigation products or services.
2. Participants in irrigation service activities are managers of irrigation projects; organizations or individuals obtaining permission for exploitation and utilization of irrigation projects; grassroots-level irrigation institutions; organizations or individuals obtaining permission for use of irrigation products or services.
3. Supply and consumption of irrigation products or services shall take the following forms:
 - a) An agreement is entered into between organizations or individuals supplying irrigation products or services and those consuming irrigation products or services;
 - b) Grassroots-level irrigation institutions directly supply irrigation products or services to meet demands of their members or other organizations or individuals.

Article 30. Classification of irrigation products or services

1. Irrigation products or services shall include public irrigation products or utilities and other products or services.
2. Public irrigation products or utilities shall include the following activities:
 - a) Crop irrigation and supply of water for the salt, aquaculture and livestock production industry;

b) Drainage of water for agricultural production, rural and metropolitan areas, except for urban areas;

c) Flood proofing, escape and prevention, high tide control, saltwater intrusion prevention, saltwater pushback, water desalinization, counter-acidification and freshwater protection.

3. Other irrigation products or services shall include the following activities:

a) Supply of water for domestic and industrial consumption purposes;

b) Drainage of water for industrial parks, export processing zones, economic zones and high technology parks;

c) Electricity generation;

d) Business, tourism and other recreational and entertainment activities;

dd) Reservoir aquaculture;

e) Transportation.

4. The Government shall make a decision on supplementary types of public irrigation products and utilities, and other products and services, where relevant to socio-economic situations over time periods.

Article 31. Bases for supply and use of irrigation products or services

1. Functions of irrigation projects.

2. Capability of supplying irrigation products or services.

3. Production plans of organizations or individuals obtaining permission for use of irrigation products and services.

Article 32. Contracts for supply of irrigation products or services

1. Contract for supply of irrigation products or services refers to a fixed-term civil agreement expressed in writing, including the following main contents:

a) Contracting parties;

b) Purposes of irrigation products or services;

c) Standards, quantity and quality of irrigation products and services;

d) Rights and obligations of contracting parties;

dd) Duration, location and method of execution of contracts;

e) Contract value, method and duration of payment;

g) Contract termination terms and conditions;

h) Liabilities for breach of contract;

i) Methods of dispute resolution.

2. Based on agreed supply capability, purposes of and demands for these products and services, the supplier and consumer of irrigation products and services shall conclude and execute contracts in accordance with applicable laws.

Article 33. Point of delivery and reception of irrigation products or services

1. Point of delivery and reception of irrigation products and services refers to a position where an irrigation product and service is transferred from organizations or individuals supplying irrigation products or services to those obtaining permission for use or consumption of irrigation products or services.

2. Supplying organizations or individuals and consuming ones shall agree on the point of delivery and reception of irrigation products and services where compliant with regulations on delegation of authority over irrigation projects by competent authorities.

3. The Minister of Agriculture and Rural Development shall provide detailed regulations of this Article.

Article 34. Rules and bases for valuing irrigation products or services

1. The Government shall determine value of irrigation product or service.

2. Valuation of irrigation product or service shall be carried out in accordance with price laws and the following provisions:

a) Price of irrigation product or service shall be composed of operation and maintenance cost, amortization cost, other reasonable actual costs and profit relevant to the market price. Over periods of time, depending on socio-economic situations, the Minister of Finance shall decide the amortization cost charged for state-funded irrigation projects;

b) Price of irrigation product or service shall be adjusted promptly when factors in price formation are changed.

3. Bases for valuation of irrigation products or services shall include:

- a) Cost and quality of irrigation product or service; profit level; schedule of adjustment in price of irrigation product or service approved by competent regulatory authorities;
- b) Capability of making payment by irrigation product or service consumers;
- c) Capability of supplying irrigation products or services;
- d) Features and types of irrigation project;
- dd) Socio-economic norms for management, operation, maintenance and investment in development of irrigation projects, adopted by competent regulatory authorities.

Article 35. Authority to decide the price of irrigation product and service

1. The price of irrigation product or service shall be composed of price of public irrigation product or utility and price of other irrigation product or service, subject to regulations set forth herein and other relevant legislation.

2. Authority to decide the price of irrigation product or service provided by state-funded irrigation projects shall be subject to the following regulations:

a) Public irrigation products or utilities:

The Minister of Finance shall have authority to decide the maximum price of public irrigation products or utilities;

The Minister of Agriculture and Rural Development shall have authority to decide the detailed price of public irrigation products and services within his/her jurisdiction, based on the maximum price thereof decided by the Minister of Finance;

The provincial-level People's Committee shall decide the detailed price of public irrigation products and services within its jurisdiction after obtaining approval granted by the same-level People's Council on the basis of the maximum price thereof decided by the Minister of Finance.

b) Other irrigation products or services:

The Minister of Finance shall have authority to decide the price range of other irrigation products and services;

The Minister of Agriculture and Rural Development shall have authority to decide the detailed price of other irrigation products and services within his/her jurisdiction, based on the price range thereof decided by the Minister of Finance;

The provincial-level People's Committee shall decide the detailed price of other irrigation products and services within its jurisdiction after obtaining approval granted by the same-level People's Council on the basis of the price range thereof decided by the Minister of Finance.

3. With respect to irrigation projects financed under the public - private partnership agreement and those that are not financed by the non-state fund, the price of irrigation product and service shall be determined under terms and conditions of an agreement between contracting parties, based on the maximum price of public resource products and utilities and the price range of other irrigation products and services, which are decided by the Minister of Finance.

4. The Government shall specifically decide the price of irrigation product or service and schedule of implementation of the price of irrigation product and service.

Article 36. Financial support for use of public irrigation products or utilities

1. Over periods of time, based on the availability of state budget, the Government shall provide financial support for use of public irrigation products and utilities, irrespective of the source of financing for investment in irrigation projects.

2. Subsidies for use of public irrigation products and utilities shall be covered by the state budget and comply with applicable legislation on the state budget.

3. The Government shall decide subjects, scope, rate of and method for granting financial support for use of public irrigation products or utilities.

Article 37. Financial aspects of management, operation and utilization of irrigation projects

1. Sources of financing for management, operation and utilization of irrigation projects shall include the followings:

a) Revenue generated from supply of irrigation products and services;

b) Grants or aids derived from the state budget;

c) Other legal funds.

2. Organizations obtaining permission to collect payments for irrigation products and services shall include:

a) Managers of irrigation projects;

b) Organizations obtaining permission for exploitation and utilization of irrigation projects.

Article 38. Use of financial sources for management, operation and utilization of irrigation projects

1. State funds for management, operation and utilization of irrigation projects shall be used for the following purposes:

- a) Carry out tasks of management, operation and utilization of irrigation projects, specified by Article 20 hereof;
 - b) Carry out maintenance, investment in improvement, construction, modernization of, handling and correction of any failure or breakdown that may happen to, and marking of the boundary for security of, irrigation projects as well as solutions to increasing effectiveness in management and operation of irrigation projects;
 - c) Fulfill other purposes prescribed by applicable laws.
2. The Minister of Finance shall provide detailed regulations of this Article.

Article 39. Distribution of revenue from supply of irrigation products or services

1. Rate of distribution of revenue from supply of irrigation products or services between organizations or individuals jointly supplying irrigation products and services within the same system of irrigation projects shall vary depending on management and operational costs paid by each organization or individual involved in operation of that system.
2. Rate of distribution of revenue from supply of irrigation products or services between organizations or individuals contributing their capital to investing in development and operation of irrigation products and services within the same system of irrigation projects shall vary depending on costs of management and operation of these irrigation projects paid by each organization or individual involved in giving capital contributions to developing and operating that system.
3. Organizations or individuals making their capital contributions to investing in development of irrigation projects shall pay for use of products or services of these projects.

Chapter VI

PROTECTION AND ASSURANCE OF SAFETY FOR IRRIGATION PROJECTS

Article 40. Protected zone of irrigation project

1. Protected zone of irrigation project shall cover main facilities and proximity thereto.
2. Activities carried out within the protected zone of an irrigation project shall not hinder operation and safety of that irrigation project; internal security streets and grounds for maintenance and emergency response shall be built within such protected zone.
3. Proximity to a reservoir, including areas in close proximity to dams and those in close proximity to reservoir beds, shall be subject to the following provisions:

- a) Proximity to a dam extends from the foot of the dam outwards. Proximity to a special-grade, grade-I, grade-II, grade-III and grade-IV dam shall extend at least 300 meters, 200 meters, 100 meters, 50 meters and 20 meters, respectively;
- b) Proximity to a reservoir bed shall extend from the reservoir margin with its elevation equal to the upper-end elevation downwards.
4. Proximity to a canal shall be subject to the following provisions:
- a) With respect to canals with the flow volume ranging from $02 \text{ m}^3/\text{s}$ to $10 \text{ m}^3/\text{s}$, the protected zone of compacted soil or concrete canals shall extend 02 m - 03 m or 01 m - 02 m from the bottom of external side slope outwards, respectively;
- b) With respect to canals with the flow volume ranging from $02 \text{ m}^3/\text{s}$ to $10 \text{ m}^3/\text{s}$, the protected zone of compacted soil or concrete canals shall extend 02 m - 03 m or 01 m - 02 m from the bottom of external side slope outwards, respectively.
5. Proximity to a river sluice gate shall extend 50 meters from the first gate from both left and right river bank.
6. Any change in scale and purposes of a irrigation project shall entail a change in proximity to that project where conformable to regulations set forth in this Article; the entity having competence in approval of the plan for protection of irrigation projects shall be vested with power to approve change in the distance of proximity for protection of the project.
7. The provincial-level People's Committee shall provide detailed distances of proximity for protection of other irrigation projects located within its jurisdiction.

Article 41. Plan for protection of irrigation projects

1. Organizations obtaining permission for exploitation and utilization of irrigation projects shall be responsible for setting up the plan for protection of these irrigation projects.
2. The plan for protection of irrigation projects shall be comprised of the following information:
- a) Geographical characteristics, design parameters, floor plans and boundary lines for protection of security for construction projects;
- b) Review of management, operation and utilization of irrigation projects;
- c) Reporting, regular, periodic or spontaneous audit mechanism;
- d) Regulations on restriction or prohibition of heavy vehicles operating inside the protected zone of irrigation projects; fire prevention and safety regulations; regulations on protection of document storage facilities and vaults for safekeeping of explosives, inflammables and hazardous substances;

- dd) Personnel structure and assignment of project security duties;
- e) Conduct of screening and inspection of people and equipment or vehicles entering or leaving irrigation projects;
- g) Prevention, discovery and termination of any encroachment or damage of irrigation projects and proximity thereof;
- h) Protection and action against any emergency or risks of emergency that may happen to irrigation projects.

3. Authority to approve the plan for protection of irrigation projects shall be prescribed as follows:

- a) The Ministry of Agriculture and Rural Development approves the plan for protection of irrigation projects managed by itself;
- b) The provincial-level People's Committee approves or vests the district-level People's Committee with delegated authority to approve the plan for protection of irrigation projects that fall within its jurisdiction, except those specified by Point a of this Clause and Clause 4 of this Article.

4. Organizations or individuals obtaining permission for exploitation and utilization of small-scale irrigation projects shall have authority to decide the plan for protection of these projects.

Article 42. Responsibilities for protection of irrigation projects

1. In case of discovering any acts or natural impacts likely to cause harms or threats to safety of an irrigation projects, organizations or individuals shall promptly notify organizations or individuals obtaining permission for exploitation and utilization of that project or the nearest People's Committee.

2. Organizations or individuals obtaining permission for exploitation and utilization of an irrigation project shall assume the following responsibilities:

- a) Carry out the plan for protection of that irrigation project;
- b) Conduct regular inspection and audit of that irrigation project;
- c) Discover and take immediate action and propose sanctions against violations of laws within the protected zone of that irrigation project;
- d) Examine compliance with requirements of the license granted to organizations or individuals obtaining permission to operate within the protected zone of that irrigation project;

dd) In case of emergency or potential risks of emergency, actions shall be taken and reports shall be submitted to the provincial-level People's Committee and the Ministry of Agriculture and Rural Development;

e) Manage dedicated supplies available for prevention and control of natural disasters;

g) Encourage different organizations and individuals to get involved in protection of irrigation projects.

3. The People's Committees at all levels shall bear the following responsibilities:

a) Direct and conduct implementation of the plan for protection of irrigation projects that fall within their remits;

b) Mobilize personnel, supplies or equipment for protection of irrigation projects in case of emergencies or risks of emergencies;

c) Prevent and take prompt action against violations of irrigation laws that may be committed within the protected zone of irrigation project, and manage irrigation projects within their respective jurisdictions;

d) Carry out audit of compliance with laws on protection of irrigation projects.

4. The Ministry of Agriculture and Rural Development shall be responsible for directing and cooperating with the provincial-level People's Committees in protection of irrigation projects managed by itself.

5. The plan for protection of irrigation projects of special importance for national security shall be conducted in accordance with this Law and legislation on protection of irrigation projects of special importance for national security.

Article 43. Marking of the boundary of the protected zone of a irrigation project

1. The project investor shall be responsible for marking the boundary of the protected zone of an irrigation project. Boundary marking funds shall be derived from total investment outlay.

2. Organizations obtaining permission for exploitation and utilization of irrigation projects shall be responsible for marking the boundaries of currently active irrigation projects for their safety. Boundary marking funds shall be derived from sources of financing for management and operation of irrigation projects and other legitimate capital.

3. The Minister of Agriculture and Rural Development shall provide detailed regulations of this Article.

Article 44. Allowed activities carried out within the protected zone of irrigation project

1. Regulatory authorities shall grant the license in order for the following activities to be carried out within the protected zone of an irrigation project:

- a) Development of new irrigation projects;
- b) Construction of stations or grounds for handling of raw materials, fuels, supplies and equipment;
- c) Drilling, boring or excavation for geological survey purposes, exploration, extraction or quarrying of minerals, building materials and exploitation of groundwater;
- d) Discharge of wastewater into water bodies at irrigation projects, except for small-scale wastewater discharge, or discharge of wastewater that does not contain hazardous or radioactive substances;
- dd) Cultivation of perennial crops;
- e) Tourism, sports, scientific research, business and service activities;
- g) Activities of inland waterway equipment or motor vehicles, except for motorcycles, mopeds or non-motorized inland watercraft;
- h) Fish farming and aquaculture;
- i) Blasting and other blasting activities;
- k) Construction of underground structures.

2. The Ministry of Agriculture and Rural Development and the provincial-level People's Committee shall be responsible for considering granting the license for activities carried out within the protected zone of irrigation project.

3. The Government shall adopt regulations on authority, processes and procedures for issuance, re-issuance, revision, suspension or revocation of the license referred to in this Article.

Article 45. Safety of dams and reservoirs in the management or operation aspect

1. Safety for dams and reservoirs shall be given top priority during the process of management and operation thereof.

2. Organizations or individuals obtaining permission for exploitation and utilization of dams and reservoirs shall meet competence requirements defined by laws and assume the following responsibilities:

- a) Operate and exploit dams and reservoirs in a safe manner and make effective use of irrigation project;

b) Carry out procedures for registration of safety for dams and reservoirs; take charge of preparing and revising the processes for operation of reservoirs and the processes for operation of interconnected multiple reservoirs; conduct dam observations and hydro-meteorological activities; examine current conditions, inspect and assess safety for dams and reservoirs; provide maintenance, repair, improvement and modernization of dams; protect and assure security for irrigation projects, downstream of dams and reservoirs; keep safe custody of documentation in accordance with laws;

c) As for dams or reservoirs built with regulating gates, based on hydro-meteorological forecasts, they shall take proactive approaches to regulating and reducing flood peak and flow to ensure safety for dams and downstream thereof; prior to opening of the first sluice gate for water release, they shall give a notification or provide information in conformity with the processes for operation of reservoirs or the processes for operation of interconnected multiple reservoirs which have been approved by competent regulatory authorities;

d) In case of operation in emergency situations or impossibility of complying with the reservoir or inter-reservoir operation processes, they shall promptly notify natural disaster prevention and control authorities and regulatory authorities having competence in approval of these processes;

dd) In case any risk to dam safety arises, they shall take urgent action to rescue dams and report to competent state authorities, natural disaster prevention and control authorities and entities concerned for their timely support, rescue and direction of response to such risk;

e) Before the rainy season each year, conduct review of current conditions of dams, report to managers of dams and reservoirs.

3. Managers of dams and reservoirs shall assume the following responsibilities:

a) Monitor, inspect and encourage compliance of organizations or individuals obtaining permission for exploitation and utilization of dams and reservoirs with regulations on management of dam safety set out in Point b Clause 2 of this Article and other regulations of related laws;

b) Send a review report on results of assessment of current conditions of the dam that is made by organizations or individuals charged with management and operation of the dam to the People's Committee of the province where the dam is situated, and the Ministry of Agriculture and Rural Development;

c) Request owners of dams and reservoirs to cover dam and reservoir safety costs;

d) Make a decision within their jurisdiction or petition competent regulatory authorities to make a decision on mobilization of personnel, equipment and supplies, and mitigation of consequences of dam or reservoir failure or breakdown.

4. Owners of dams and reservoirs shall assume the following responsibilities:

a) Conduct regular, spontaneous and periodic inspection and evaluation of dams or reservoirs in accordance with laws and regulations;

b) Provide funds to cover dam and reservoir safety costs.

5. Before the rainy season each year, the Ministry of Agriculture and Rural Development and the provincial-level People's Committee shall conduct assessment of safety of dams and reservoirs; make a decision on the plan for retention and storage of water for reservoirs and solutions to assuring safety for dams or reservoirs within their jurisdiction.

6. The Government shall provide detailed regulations of this Article.

Article 46. Protection of the quality of water inside an irrigation project

1. Organizations or individuals shall be responsible for protecting the quality of water inside an irrigation project.

2. Organizations or individuals licensed to provide irrigation products or services shall have the burden of directly protecting the quality of water inside an irrigation project and controlling discharge of wastewater into that irrigation project.

3. Organizations or individuals obtaining permission to use irrigation products or services shall be responsible for protecting the quality of water during the process of consumption of water.

Article 47. Change of purposes of irrigation projects

1. Change of purposes of existing irrigation projects shall require consent from the authority that has granted approval of investment in such projects and conformity with the approved irrigation plan.

2. The authority granting approval of change of purposes of an irrigation project shall decide measures to assure mutual interest between parties concerned due to change of purposes of such irrigation project.

3. Project investors making change of purposes of irrigation projects shall be responsible for compensating organizations or individuals incurring any loss due to change of purposes of irrigation projects.

Article 48. Measures to deal with existing facilities inside the protected zone of irrigation project

1. If existing facilities inside the protected zone of irrigation project do not harm safety and capacity of irrigation projects, continued use of these facilities shall be allowed, but expansion of their scale or change of their structure shall not be allowed.

2. If existing facilities inside the protected zone of irrigation project cause any harm to safety and capacity of irrigation projects, mitigation measures shall be required; in case of impossibility of taking such measures, they shall be demolished or relocated.

3. The provincial-level People's Committee shall direct the district-level People's Committees, commune-level People's Committees and other organizations or individuals obtaining permission for exploitation and utilization of irrigation projects to prepare the plan and carry out demolition or relocation of these facilities as prescribed by Clause 2 of this Article.

Chapter VII

SMALL-SCALE AND INTER-FIELD IRRIGATION PROJECTS

Article 49. Requirements concerning development of small-scale and inter-field irrigation projects

1. Align with irrigation and related plans which have been approved.
2. Ensure that infrastructure facilities of small-scale and inter-field irrigation projects meet requirements that irrigation and drainage technologies are advanced, modern, synchronous, closed and match a variety of agricultural demands; proactive actions are taken to drain water for production and domestic purposes.
3. Apply advanced and water-efficient technologies and technical solutions, and prevent any water loss occurring during the process of construction, management and operation of irrigation projects.
4. Organizations or individuals obtaining permission for use of irrigation products or services shall be charged with investing in development of small-scale and inter-field irrigation projects.

Article 50. Management, operation and utilization of small-scale and inter-field irrigation projects

1. Grassroots-level irrigation institutions obtaining permission for management and operation and utilization of small-scale and inter-field irrigation projects shall include:
 - a) Cooperatives;
 - b) Artels.
2. Grassroots-level irrigation institutions referred to in Clause 1 of this Article shall be authorized to establish and operate in accordance with laws and regulations on cooperatives, civil laws and rules or statutes ratified by majority of an organization, and certification by the commune-level People's Committee; all of consumers of irrigation products or services shall be members of grassroots-level irrigation institutions.

3. Grassroots-level irrigation institutions shall be given options of either directly managing, operating, exploiting, or designating other organizations or individuals to manage, operate or exploit small-scale and inter-field irrigation projects.

4. If grassroots-level irrigation institutions have sound competence, unions of grassroots-level irrigation institutions shall be established to acquire transferred authority over the water channeling and transfer system connected to the system of inter-field irrigation projects.

5. The People's Committees of communes where grassroots-level irrigation institutions, referred to in Clause 1 of this Article, have not been established yet, shall take over responsibilities assigned these grassroots-level irrigation institutions.

6. The Minister of Agriculture and Rural Development shall provide detailed regulations of this Article.

Article 51. Budget for operation of small-scale and inter-field irrigation projects

1. The budget for operation of small-scale and inter-field irrigation projects shall be constituted by:

a) Contributions given by organizations or individuals obtaining permission for use of irrigation products and services;

b) Subsidies from the Government;

c) Investments put by other organizations or individuals.

2. The Government's subsidies, referred to in Point b Clause 1 of this Article, shall be disbursed through grassroots-level irrigation institutions.

3. Members of a grassroots-level irrigation institution shall approve the level of contribution to that institution according to the majority rule and the principle of calculation of correct and sufficient funds.

4. The Government shall provide regulations on development of small-scale and inter-field irrigation projects.

Article 52. Transfer and withholding of the right to manage and operate state-invested small-scale and inter-field irrigation projects

1. Transfer and withholding of the right to manage and operate state-invested small-scale and inter-field irrigation projects shall be decided by owners of these projects and ensure compliance with laws and regulations on management and use of public assets.

2. Grassroots-level irrigation institutions as transferees of the right to manage and operate state-invested small-scale and inter-field irrigation projects shall implement rights and obligations

subject to decisions issued by owners of these projects or under contracts with competent regulatory authorities.

3. Transfer of the right to manage and operate state-invested small-scale and inter-field irrigation projects to grassroots-level irrigation institutions shall be preferred.

Chapter VIII

RIGHTS AND RESPONSIBILITIES OF ORGANIZATIONS OR INDIVIDUALS FOR IRRIGATION OPERATIONS

Article 53. Rights and responsibilities of organizations or individuals for irrigation operations

1. Consume irrigation products or services under the provisions of this Law and other relevant legislation.
2. Contribute opinions on irrigation operations in accordance with laws.
3. Invest in development, construction, management, operation, utilization and protection of irrigation works or facilities.
4. Take part in oversight of irrigation operations carried out by authorities, entities or individuals.
5. Participate in programs for dissemination, communication and promotion of awareness of legal knowledge about irrigation matters.
6. Get involved in dealing with any failure or breakdown that may happen to irrigation projects due to consequences of natural disasters under the personnel arrangement decision granted by competent regulatory authorities.
7. Protect the quality of water inside irrigation projects.

Article 54. Rights and responsibilities of organizations or individuals obtaining permission for operation and utilization of irrigation projects

1. Have rights and responsibilities specified in Article 53 hereof.
2. Use assigned resources to increase capability of supplying irrigation products and services in accordance with laws; hold the right to collect payments for supply of irrigation products and services as agreed upon in contracts.
3. Decide, at their discretion, the portion of profit earned from supply of other irrigation products and services after discharge of tax obligations to the State Budget.

4. Draw up and conduct implementation of business plans and plans for supply of irrigation products and services. It is obligatory for them to conduct an opinion poll on, and notify organizations or individuals obtaining permission for use of irrigation products and services of, the plan for supply of irrigation products and services.
5. Carry out tasks of management, operation and utilization of irrigation projects as specified by Article 20 hereof.
6. Manage and utilize land pieces that belong to the protected zone of irrigation project in accordance with laws.
7. Operate irrigation works or facilities according to assigned duties and operational processes approved by competent state authorities.
8. Protect irrigation projects; prevent and take action against any encroachment upon or damage to irrigation projects.
9. Carry out abstraction of water inside irrigation projects.
10. Make a request to relevant competent authorities to grant their approval and execute the plan for response to natural disasters and the plan for protection of irrigation projects in accordance with this Law.
11. Petition the People's Committees at all levels governing local jurisdictions where irrigation projects are located to take necessary action to protect and assure safety for these projects in the event that any encroachment or emergency risk arises.
12. Request owners of irrigation projects to provide funds for maintenance, improvement, construction, modernization and handling of failures or breakdowns of irrigation projects in accordance with this Law and other regulations of relevant laws.
13. Send a petition to competent state authorities or file a lawsuit to the Court to deal with failure of organizations or individuals to pay for their use of irrigation products and services, and resolve any contract-related disputes.
14. Guide, strengthen and develop grassroots-level irrigation institutions; create opportunities for consumers of irrigation products and services to get involved in drawing up the plan for management and operation and the plan for protection of irrigation project.
15. Provide support for consumers of irrigation products and services for conversion into cultivation of crops of high economic value, and use of advanced and water-efficient irrigation technologies.
16. Unilaterally terminate supply of irrigation products and services in case there is any risk to safety of irrigation projects or water does not meet required standard; consumers of irrigation

products or services do not pay for use of these products or services, or commit any violation against other contractual terms and conditions, or as decided by competent regulatory authorities.

17. File a petition, bring an action and pay compensation for any loss or damage arising in accordance with laws.

Article 55. Rights and responsibilities of organizations or individuals obtaining permission for use of irrigation products and services

1. Have rights and responsibilities specified in Article 53 hereof.
2. Enter into irrigation service contracts and implement contractual terms and conditions; use water economically, effectively and efficiently.
3. Request organizations or individuals obtaining permission for management and operation of irrigation projects to publish the plan for supply of irrigation products or services.
4. Get involved in drawing up the plan for operation and the plan for protection of irrigation works or facilities.
5. Engage in protection of irrigation projects and water quality during the process of using irrigation products or services.
6. Get involved in actions to respond to and correct any failure or breakdown that may happen to irrigation projects under the decision issued by competent authorities.
7. Mitigate consequences upon the request of organizations or individuals providing irrigation products or services in case any failure or breakdown or water pollution occurs.
8. File a petition, bring an action and pay compensation for any loss or damage arising in accordance with laws.

Chapter IX

RESPONSIBILITIES FOR STATE IRRIGATION MANAGEMENT

Article 56. Responsibilities of the Government, Ministries and Ministry-level agencies

1. The Government shall establish a consistent structure of state irrigation management across the nation.
2. The Ministry of Agriculture and Rural Development shall play a central role in assisting the Government in carrying out state irrigation management and assume the following responsibilities:

- a) Release within its jurisdiction or request competent authorities to release and conduct implementation of strategies, plans, proposals and regulatory policies and legislative documents relating to irrigation matters;
- b) Establish national standards, release national technical regulations, and socio-economic norms for irrigation operations; take charge of establishing and approving the processes for operation of irrigation projects within its jurisdiction;
- c) Direct regulation and distribution of water and conduct formulation of plans for use of water within the system of irrigation projects for domestic, agricultural production and other economic activity purposes; lead and cooperate with the Ministry of Industry and Trade in regulation of water within hydropower reservoirs for water uses in case of drought, water shortage or saltwater intrusion;
- d) Contribute opinions on strategies and plans for development of national industries and other proposals related to irrigation operations;
- dd) Direct, provide guidance on and inspect conformity with requirements concerning prevention, control and mitigation of consequences resulting from droughts, water shortages, saltwater intrusions, desertification, floods, inundation and waterlogging;
- e) Conduct dedicated hydro-meteorological observations, forecasts and warnings of drought, water shortage, saltwater intrusion, desertification, flood, inundation, aggradation, soil corrosion or landslide affecting irrigation works and facilities, river banks or seacoasts; volume and quality of water inside irrigation projects for agricultural production, personal and domestic and other economic activity purposes;
- g) Issue, re-issue, renew, revise, suspend and revoke licenses to carry out activities within protected zones of irrigation projects;
- h) Manage maintenance, investment in improvement, construction or modernization of irrigation projects;
- i) Coordinate the management, exploitation, operation and protection of irrigation projects within its jurisdiction; manage safety for dams and reservoirs;
- k) Organize the statistics, establishment and management of irrigation database; short-term, long-term and medium-term forecast of water used for irrigation operations and other water uses;
- l) Organize the inventory of water inside irrigation projects and a forecast of drought, water shortage and saltwater intrusion in order to set up the plan for retention, storage, regulation, distribution and use of water;
- m) Coordinate the scientific research and application of advanced water technologies; provide training sessions and professional and skill development courses for participants in irrigation operations;

n) Administer and distribute subsidies for use of public irrigation products or utilities to organizations or individuals obtaining permission for operation and utilization of irrigation projects that fall under its authority;

o) Organize the dissemination, communication and promotion of public awareness of irrigation matters;

p) Audit and take action against violations of laws, and handle any complaint or accusation related to irrigation matters;

r) Act as a focal point of international cooperation in irrigation operations.

3. Ministries and Ministry-level agencies shall, within their assigned duties and jurisdictions, take responsibility for cooperating with the Ministry of Agriculture and Rural Development in carrying out state management of irrigation operations.

Article 57. Responsibilities of the People's Committees at all levels

1. The provincial-level People's Committees shall, within their assigned duties and powers, bear the following responsibilities:

a) Release within its jurisdiction or request competent authorities to release legislative documents relating to irrigation matters;

b) Coordinate the establishment, approval, release and implementation of irrigation plans; approve and coordinate the implementation of plans and projects for construction of irrigation works or facilities;

c) Coordinate the management, operation and utilization of irrigation projects;

d) Assure sufficient budget for investment in development, construction, management, operation, utilization and protection of irrigation works or facilities;

dd) Administer and distribute subsidies for use of public irrigation products or utilities to organizations or individuals obtaining permission for operation and utilization of irrigation projects that fall under its authority;

e) Coordinate the statistics, establishment and management of the irrigation database; a forecast of water used for irrigation and other demands; an inventory of water inside irrigation projects and a forecast of drought, water shortage and saltwater intrusion in order to draw up the plan for regulation and distribution of water for personal, domestic and agricultural production purposes within provinces;

g) Coordinate the public communication and promotion of public awareness of irrigation laws;

h) Issue, re-issue, renew, revise, suspend and revoke licenses or permissions to carry out activities within protected zones of water resource projects;

i) Audit and take action against violations of laws, and resolve any irrigation-related complaint or accusation;

k) Send a periodic review report on irrigation operations to the Minister of Agriculture and Rural Development.

2. The district-level People's Committees shall, within their assigned duties and powers, bear the following responsibilities:

a) Coordinate the execution of legislative documents on irrigation;

b) Coordinate the implementation of irrigation development plans and schemes;

c) Direct activities performed by organizations or individuals obtaining permission for management, operation or exploitation of irrigation projects;

d) Conduct the statistics, establishment and management of irrigation database;

dd) Coordinate the public communication and promotion of public awareness of irrigation laws;

e) Direct competent authorities to collaborate in inspection of compliance with activity requirements specified in licenses or permissions to carry out activities within protected zones of irrigation projects;

g) Make periodic and spontaneous reports on irrigation operations carried out within districts;

h) Audit and take action against violations of laws, and resolve any irrigation-related complaint or accusation.

3. The commune-level People's Committees shall, within their assigned duties and powers, bear the following responsibilities:

a) Coordinate the irrigation development under irrigation plans approved by competent authorities;

b) Coordinate the performance of duties assigned grassroots-level irrigation institutions in case they have not been established yet;

c) Mobilize resources available within communes to take necessary action in case of emergencies occurring within irrigation projects in accordance with laws;

- d) Cooperate with specialized affiliations of the district-level People's Committees in directing activities performed by organizations or individuals obtaining permission for management, operation and protection of irrigation projects located within communes;
- dd) Carry out the public communication of and the education about irrigation laws;
- e) Inspect compliance with activity requirements specified in licenses or permissions to carry out activities within protected zones of irrigation projects;
- g) Make periodic and spontaneous reports on irrigation operations carried out within communes;
- h) Investigate and resolve any irrigation-related complaint or accusation, and prevent and take action against violations of irrigation laws.

Chapter X

IMPLEMENTARY PROVISIONS

Article 58. Revision and supplementation of Clause 1 Article 73 of the Law on Water Resources No. 17/2012/QH13

Clause 1 Article 73 of the Law on Water Resources No. 17/2012/QH13 shall be revised and supplemented as follows:

“1. The Ministry of Natural Resources and Environment and the provincial-level People’s Committees shall issue, re-issue, renew, revise, suspend and revoke water resource licenses or permissions, except for discharge of wastewater that will be subject to regulations of the Law on Irrigation.”

Article 59. Entry into force

1. This Law shall commence on July 1, 2018.
2. The Ordinance on Exploitation and Protection of Irrigation Projects No. 32/2001/PL-UBTVQH10 shall terminate on the date of entry into force of this Law.

Article 60. Transitional provision

Use of licenses or permissions in the irrigation field already granted prior to the date of this Law's entry into force and remaining unexpired shall be continued until expiration.

This Law is passed at the 3rd plenum of the XIVth-tenure National Assembly of the Socialist Republic of Vietnam on June 19, 2017.

THE NATIONAL ASSEMBLY'S CHAIR

Nguyen Thi Kim Ngan

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