

ACT ON THE PREPARATION FOR EARTHQUAKES AND VOLCANIC ERUPTIONS

Act No. 13442, Jul. 24, 2015

Article 1 (Purpose)

The purpose of this Act is to prescribe matters necessary for the observation of, prevention of, provision against, and action against earthquakes, tsunamis, and volcanoes, earthquake-proof measures, and research and technical development, etc. to reduce earthquake disasters and volcano disasters in order to protect the life and property of the people and major infrastructure from disasters due to earthquakes, tsunamis, and volcanoes. *<Amended by Act No. 13442, Jul. 24, 2015>*

Article 2 (Definitions)

The definitions of terms used in this Act shall be as follows: *<Amended by Act No. 13442, Jul. 24, 2015>*

1. The term "earthquake disasters" means direct damage by earthquake ground vibrations (namely, ground vibrations caused by earthquakes), which is caused by earthquakes or tsunamis defined in subparagraph 1 (a) of Article 3 of the Framework Act on the Management of Disasters and Safety, and fire, explosion, and disasters caused by other phenomena;
2. The term "volcano disasters" means direct damage by volcanic ash, pyroclastic flow, volcanic mud flow, volcanic gas, lava, volcanic earthquake and flood, etc., which is caused by volcanic activity defined in subparagraph 1 (a) of Article 3 of the Framework Act on the Management of Disasters and Safety, and fire, explosion, and disasters caused by other phenomena;
3. The term "prevention of earthquake disasters" means preventing earthquake disasters and taking measures to reduce damage when earthquake disasters have occurred;
4. The term "prevention of volcano disasters" means preventing volcano disasters and taking measures to reduce damage when volcano disasters have occurred;
5. The term "earthquake risk" means the degree of risk of earthquakes calculated by collectively analyzing the past record of earthquakes, geology, and characteristics of the ground or such, in order to establish earthquake zones which are the base of earthquake-proof design;
6. The term "measurement of seismic acceleration" means acts that a person who builds various structures or installs equipment or such (hereinafter referred to as "facilities") or manages them detects, by utilizing seismic accelerometer, moving characteristics (hereinafter referred to as "motion characteristics of earthquakes") of facilities in response to outside force due to earthquakes;

7. The term "earthquake-proof reinforcement" means all acts improving the durable performance of all facilities from earthquakes.

Article 3 (Responsibility of State and Agencies in Charge of Emergency Management)

(1) The State and local governments shall take responsibility for formulating and implementing a plan for observation of, prevention of, provision against, and action against earthquakes, tsunami, and volcanic activity, earthquake-proof measures, and research and technical development, etc., to reduce earthquake disasters and volcano disasters (hereinafter referred to as "earthquake and volcano disaster") in order to protect the life and property of the people and major infrastructure from earthquake and volcano disasters in accordance with the purposes of the Framework Act on the Management of Disasters and Safety and this Act, and shall provide financial and technical support for the performance thereof. *<Amended by Act No. 12001, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(2) The State and local governments shall endeavor to globally cooperate to prevent and reduce the damage of earthquake and volcano disasters, share technology and information relevant to earthquake and volcano disasters, and strengthen cooperation with international organizations and relevant states, including joint investigation and research and development, and shall provide necessary support therefor. *<Newly Inserted by Act No. 13442, Jul. 24, 2015>*

(3) The head of each agency in charge of emergency management defined in subparagraph 5 of Article 3 of the Framework Act on the Management of Disasters and Safety (hereinafter referred to as "agency in charge of emergency management") shall take necessary measures for matters under his/her jurisdiction, among the following affairs, to reduce earthquake and volcano disasters: *<Amended by Act No. 13442, Jul. 24, 2015>*

1. Prevention of and provision against earthquake and volcano disasters:

- (a) Taking measures for reducing earthquake and volcano disasters;
- (b) Formulating and performing an emergency plan for facilities under his/her jurisdiction;
- (c) Producing and utilizing coastal flooding forecast maps, flood trace maps, etc. of coastal regions due to tsunami;
- (d) Providing education, training, and publicity of the prevention of earthquake and volcano disasters;

2. Earthquake-proof measures:

- (a) Establishing the objectives of national earthquake-proof performance and the objectives of tolerable damage by facility;
- (b) Establishing standards for classification of earthquake-proof grades and producing and utilizing maps indicating earthquake risk (hereinafter referred to as "earthquake risk maps");
- (c) Establishing and operating earthquake-proof design standards and confirming the actual result of the application thereof;
- (d) Evaluating earthquake-proof performance of the existing facilities and formulating measures for reinforcement;

(e) Taking earthquake-proof measures for public facilities, low-rise buildings, etc.;

3. Observation, analysis, reporting, spread of warning, and action against earthquakes, tsunami, and volcanic activity:

(a) Building and managing observation facilities and equipment of earthquakes, tsunami, and volcanic activity;

(b) Observation and reporting of earthquakes, tsunami, and volcanic activity;

(c) Constructing the system for action against earthquake and volcano disasters and emergency support;

(d) Preparing and utilizing the outline for coping with earthquakes, tsunami, and volcanic activity;

(e) Research and technical development for reducing earthquake and volcano disasters;

(f) Conducting investigation and analysis of causes of earthquake and volcano disasters and risk assessment of damaged facilities;

4. Other matters deemed necessary by the head of an agency in charge of emergency management.

(4) The director of each City/Do emergency management headquarters or the director of each Si/Gun/Gu emergency management headquarters established under Article 16 of the Framework Act on the Management of Disasters and Safety (hereinafter referred to as "director of a regional management headquarters") shall determine the specific outlines for coping with emergencies in consideration of earthquake and volcano disasters and regional characteristics, and utilize it positively as material for education of and public relations with residents and relevant public officials. <Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>

Article 4 (Relationship with other Acts)

Matters not specifically prescribed by this Act, such as recovery from earthquake and volcano disasters, shall be in accordance with the Countermeasures against Natural Disasters Act. <Amended by Act No. 13442, Jul. 24, 2015>

Article 5 (Installment, etc. of Facilities for Observing Seismic, Tsunami, or Volcanic Activity)

(1) The Administrator of the Korea Meteorological Administration shall formulate and promote a comprehensive plan for earthquake, tsunami, and volcanic activity observation network: Provided, That with respect to a comprehensive plan for tsunami observation network, he/she shall formulate and promote it jointly with the Minister of Oceans and Fisheries. <Amended by Act No. 11690, Mar. 23, 2013; Act No. 13442, Jul. 24, 2015>

(2) If the head of any of the following agencies (hereinafter referred to as "observation agency") intends to install facilities and equipment for observing earthquakes, tsunami, or volcanic activity, he/she shall formulate a plan for observation of seismic, tsunami, or volcanic activity. In such cases, the head of an agency, excluding the Administrator of the Korea Meteorological Administration, shall pre-consult with the Administrator of the Korea Meteorological Administration: <Amended by Act No. 11690, Mar. 23, 2013; Act No. 13442, Jul. 24, 2015>

1. The Korea Meteorological Administration;
2. The Korea Institute of Geoscience and Mineral Resources established under Article 8 of the Act on the Establishment, Operation and Fostering of Government-Funded Science and Technology Research Institutes, Etc.;
3. The Korea Institute of Nuclear Safety established under the Korea Institute of Nuclear Safety Act;
4. An agency which engages in research related to electric power under the control of the Korea Electric Power Corporation established under the Korea Electric Power Corporation Act;
5. An agency which engages in investigation and research related to the sea under the control of the Ministry of Oceans and Fisheries;
6. Other agencies prescribed by Presidential Decree as agencies and organizations, etc. conducting earthquakes, tsunami, or volcanic activity observation by installing facilities and equipment for observing earthquakes, tsunami, or volcanic activity.

(3) The following matters shall be included in a plan for observation of seismic, tsunami, or volcanic activity referred to in paragraph (2): <Amended by Act No. 13442, Jul. 24, 2015>

1. The purpose of seismic, tsunami, or volcanic observation and reasons for installation of observation equipment;
2. Location of installation, performance, and specifications of seismic, tsunami, or volcanic observation equipment;
3. Methods of acquiring, transmitting, and storing seismic, tsunami, or volcanic observation data;
4. A plan for utilization of the results of seismic, tsunami, or volcanic observation.

(4) Standards for installing facilities and equipment for observing seismic, tsunami, or volcanic activity under paragraph (2) shall be prescribed by Presidential Decree. <Amended by Act No. 13442, Jul. 24, 2015>

Article 6 (Measurement of Seismic Acceleration of Major Facilities)

(1) Each person who builds or manages major facilities apprehended to be damaged by earthquakes shall measure seismic acceleration of such facilities.

(2) Standards for facilities, scale, etc. subject to measurement of seismic acceleration referred to in paragraph (1) shall be prescribed by Presidential Decree among facilities, the standards of earthquake-proof design of which are determined under Article 14.

(3) Any person who measures seismic acceleration under paragraph (1) shall submit the data of measurement, including the following matters, to the Minister of Public Safety and Security. In such cases, standards for time, method, etc. of the presentation of data shall be prescribed by Ordinance of the Prime Minister: <Amended by Act No. 11690, Mar. 23, 2013; Act No. 12844, Nov. 19, 2014>

1. The date and time of the acquisition of data;
2. A manufacturing company, serial number, and location of seismic acceleration measuring equipment by which the data of measurement have been acquired;
3. Extraordinary matters at the time of the acquisition of data;

4. Information on ground conditions;
5. Information on the location of measurement;
6. Information on facilities, etc.

(4) Where a relevant central administrative agency requires data submitted pursuant to paragraph (3), the Minister of Public Safety and Security shall provide such agency with the data. *<Amended by Act No. 12844, Nov. 19, 2014>*

Article 7 (Measurement of Seismic Acceleration and Management thereof)

(1) Each person who measures seismic acceleration pursuant to Article 6 (1) shall manage a seismic acceleration measuring instrument to function normally at all times.

(2) Standards for measurement of seismic acceleration and management thereof, etc. under paragraph (1) shall be prescribed by Ordinance of the Prime Minister. *<Amended by Act No. 11690, Mar. 23, 2013; Act No. 12844, Nov. 19, 2014>*

Article 8 (Reporting on Observation Results, etc. of Seismic, Tsunami, and Volcanic Activities)

(1) The Administrator of the Korea Meteorological Administration shall report the forecast and results of observation of seismic, tsunami, or volcanic activities (hereinafter referred to as "observation result, etc.") both in Korea and abroad to the director of the central emergency management headquarters established under Article 14 of the Framework Act on the Management of Disasters and Safety (hereinafter referred to as "director of the central management headquarters"). *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(2) Deleted. *<by Act No. 13442, Jul. 24, 2015>*

(3) Matters necessary for reporting on the observation results, etc. shall be prescribed by Presidential Decree. *<Amended by Act No. 13442, Jul. 24, 2015>*

Article 9 (Organization, etc. of Council of Agencies for Observing Seismic, Tsunami, and Volcanic Activities)

(1) The Administrator of the Korea Meteorological Administration may establish a council of agencies for observing seismic, tsunami, and volcanic activities (hereinafter referred to as "council of observation agencies") in which observation agencies participate for the operation of observation networks of seismic, tsunami, and volcanic activities, intensification of collaboration among observation agencies, installation of facilities and equipment for observing seismic, tsunami, and volcanic activity under Article 5, business cooperation necessary for sharing and reporting on the observation results, etc. *<Amended by Act No. 13442, Jul. 24, 2015>*

(2) Matters necessary for the organization, function, and operation of a council of observation agencies shall be prescribed by Presidential Decree. *<Amended by Act No. 13442, Jul. 24, 2015>*

(3) When the Administrator of the Korea Meteorological Administration establishes a council of observation agencies, he/she shall report the details thereof to the director of the central management headquarters. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

Article 9-2 (Formulation, Implementation, etc. of Comprehensive Plans for Preventing Earthquake Disasters)

(1) In order to protect the life and property of the people and the major infrastructure from earthquake disasters and to continuously develop the affairs of preventing earthquake disasters, the director of central management headquarters shall formulate a comprehensive plan on a five-year basis to prevent earthquake disasters, including the following matters (hereinafter referred to as “comprehensive plan”) and shall report to the Central Safety Management Committee under Article 9 of the Framework Act on the Management of Disasters and Safety:

1. Matters concerning basic direction-setting for policies for preventing earthquake disasters;
2. Matters concerning systematic development of the affairs of preventing earthquake disasters;
3. Matters concerning promotion of research and development to prevent earthquake disasters;
4. Matters concerning cooperation between domestic and overseas authorities relevant to the affairs of preventing earthquake disasters;
5. Other matters that the director of central management headquarters deems necessary for policies for preventing earthquake disasters.

(2) Where the director of central management headquarters intends to formulate a comprehensive plan, he/she shall first consult with the heads of relevant central administrative agencies and the directors of regional management headquarters; and where the comprehensive plan is formulated, he/she shall, without delay, notify it to the heads of relevant central administrative agencies and the directors of regional management headquarters.

(3) Where the director of central management headquarters deems necessary to formulate a comprehensive plan, he/she may request the head of a relevant central administrative agency and the director of regional management headquarters to submit relevant data. In such cases, the head of the relevant central administrative agency and the director of regional management headquarters upon receipt of such request shall comply therewith, except in extenuating circumstances.

(4) The head of the relevant central administrative agency and the director of regional management headquarters shall formulate and promote necessary implementation plans pursuant to the comprehensive plan, and report or notify the status of promotion and implementation thereof to the director of central management headquarters.

(5) Other matters necessary for formulation, promotion, etc. of comprehensive plans and implementation plans shall be prescribed by Presidential Decree.

Article 9-3 (Deliberative Council for Earthquake and Volcano Disasters Prevention Policy)

(1) To review the following matters concerning policies for preventing earthquake and volcano disasters, a deliberative council for earthquake and volcano disasters prevention policy (hereafter in this Article, referred to as the “council”) shall be established under the director of the central management headquarters: *<Amended by Act No. 13442, Jul. 24, 2015>*

1. Comprehensive plans;
2. Matters to be commonly applied to the goals of State earthquake-proof performance and the standards for earthquake-proof design prescribed in Article 14 (4);
3. Master plans for earthquake-proof reinforcement of existing facilities prescribed in Article 15;
4. Other matters prescribed by Presidential Decree, relevant to policies for preventing earthquake and volcano disasters.

(2) The affairs of the council shall be conducted by the Ministry of Public Safety and Security. *<Amended by Act No. 12844, Nov. 19, 2014>*

(3) The council shall be comprised of not exceeding 20 members prescribed by Presidential Decree, including one chairperson and one deputy chairperson. *<Amended by Act No. 13442, Jul. 24, 2015>*

(4) Other matters necessary for composition, operation, etc. of the council shall be prescribed by Presidential Decree.

Article 10 (Production, Utilization, etc. of Coastal Flooding Forecast Maps)

(1) The director of central management headquarters and the director of regional management headquarters shall produce and utilize flooding forecast maps (hereinafter referred to as "coastal flooding forecast maps") which forecast the range of flooding of coastal regions due to tsunami, for reducing earthquake disasters and promptly evacuating residents. *<Amended by Act No. 11994, Aug. 6, 2013>*

(2) In order to produce coastal flooding forecast maps, the director of central management headquarters and the director of regional management headquarters may request agencies producing and managing land topographical maps, marine charts, etc. to provide related maps, etc. In such cases, agencies so requested shall provide such related maps, etc. except in extenuating circumstances.

(3) Where a coastal region suffers flood damage due to tsunami, the director of regional management headquarters shall investigate such traces of damage (hereinafter referred to as "flood traces"), prepare and keep flood trace maps, and indicate and manage flood traces on the actual spots. *<Amended by Act No. 11994, Aug. 6, 2013>*

(4) The head of the relevant administrative agency shall utilize coastal flooding forecast maps under paragraph (1) and flood trace maps under paragraph (3) for prior examination and consultation of disaster impact under Article 4 of the Countermeasures against Natural Disasters Act, designation of areas to be improved for dealing with natural disaster risks under Article 12 of the same Act, formulation of a rearrangement plan for areas to be improved for dealing with natural disaster risks under Article 13 of the same Act, formulation of a rearrangement project plan for areas to be improved for dealing with natural disaster risks under Article 14 of the same Act, formulation of a comprehensive plan for mitigation of damage from storms and floods under Article 16 of the same Act. *<Amended by Act No. 11495, Oct. 12, 2012>*

(5) Other detailed matters concerning the preparation, keeping, and utilization of coastal flooding forecast maps under paragraph (1) and of flood trace maps under paragraph (3), the location of installation, method of indication, and maintenance and management of flood traces, etc. shall be prescribed by Presidential

Decree.

Article 10-2 (Formulation, etc. of Resident Evacuation Plans against Tsunami)

(1) In order to minimize loss of human lives caused by tsunami, the director of regional management headquarters shall formulate and implement a resident evacuation plan against tsunami (hereinafter referred to as “resident evacuation plan against tsunami”), including designating resident evacuation areas and maintaining evacuation shelters and routes.

(2) Where a resident evacuation plan against tsunami is formulated, the director of regional management headquarters shall submit it to the director of central management headquarters.

(3) Where the director of central management headquarters deems necessary to supplement certain portion of the resident evacuation plan against tsunami formulated by the director of regional management headquarters, he/she may request the director of the relevant regional management headquarters to supplement the evacuation plan. In such cases, the director of the relevant regional management headquarters in receipt of such request shall comply therewith, except in extenuating circumstances.

(4) To efficiently implement a resident evacuation plan against tsunami, the director of central management headquarters may take necessary administrative or financial measures, such as distributing guidelines for drafting evacuation plans and evaluating, examining, rewarding, etc. relevant facilities and readiness against tsunami.

(5) Other matters necessary for efficiently implementing resident evacuation plans against tsunami shall be prescribed by Presidential Decree.

Article 11 (Education, Training, and Publicity of Prevention of Earthquake and Volcano Disasters)

(1) The head of each central administrative agency and the director of each regional management headquarters shall have educational institutions under their control conduct education of the prevention of earthquake and volcano disasters on the guidelines for necessary action at home and work in order to protect the life and property of an individual and protect facilities and equipment at his/her work from earthquake and volcano disasters. <Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>

(2) The director of the central management headquarters and the director of a regional management headquarters may establish a place of education for experiencing earthquake and volcanic activity, and for providing education and training on the guidelines for necessary action, etc. in the event of an earthquake and volcanic activity, hold a relevant event for technical development in the prevention of earthquake and volcano disasters, or provide administrative or financial support necessary to hold the relevant event. <Amended by Act Nos. 11994 & 12001, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>

(3) The director of each regional management headquarters shall conduct education and publicity of the prevention of earthquake and volcano disasters for residents of a district under his/her jurisdiction. <Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>

(4) The head of each agency in charge of emergency management shall educate persons engaging in affairs related to earthquake and volcano disasters about the prevention of earthquake and volcano disasters. <Amended by Act No. 13442, Jul. 24, 2015>

Article 11-2 (Comprehensive Measures for Reducing Damage from Volcanic Ash)

(1) In preparation for the occurrence of damage caused by volcanic ash, the head of each agency in charge of emergency management shall formulate the following measures for matters under his/her jurisdiction to reduce damage from volcanic ash, and shall take measures necessary for the implementation thereof:

1. Measures for transportation, such as aviation, railroad, and road;
2. Measures for collecting and handling volcanic ash;
3. Measures for preventing water pollution of water supply source and river;
4. Measures for reducing damage from volcanic ash in electricity and communication facilities;
5. Measures for reducing damage from volcanic ash in agricultural, livestock, and fishery products and the relevant facilities;
6. Other matters prescribed by Presidential Decree for reducing damage from volcanic ash.

(2) When necessary for the promotion of policies to reduce damage from volcanic ash for matters under his/her jurisdiction, the head of an agency in charge of emergency management may request a cooperation from the heads of other agencies in charge of emergency management. In such cases, the heads of such other agencies in charge of emergency management in receipt of a request for cooperation shall comply therewith, except in extenuating circumstances.

(3) When the head of an agency in charge of emergency management formulates or modifies measures for matters under his/her jurisdiction to reduce damage from volcanic ash, he/she shall submit such measures to the director of the central management headquarters.

(4) When necessary, the director of the central management headquarters may request the head of the relevant agency in charge of emergency management to complement the measures to reduce damage from volcanic ash submitted pursuant to paragraph (3).

(5) The director of the central management headquarters may formulate comprehensive measures to reduce damage from volcanic ash by gathering measures to reduce damage from volcanic ash submitted by the heads of agencies in charge of emergency management.

(6) The director of the central management headquarters may determine the standards for managing volcanic ash by area, such as environment and industry, in consultation with the heads of the relevant central administrative agencies to utilize them in the comprehensive measures to reduce damages from volcanic ash, etc.

Article 12 (Production, Utilization, etc. of National Earthquake Risk Maps)

(1) The director of central management headquarters may produce and publish earthquake risk maps (hereinafter referred to as "national earthquake risk maps") which designate nationwide seismic areas in order to utilize them in earthquake-proof design, etc. <Amended by Act No. 11994, Aug. 6, 2013>

(2) The director of central management headquarters shall examine the appropriateness of national earthquake risk maps every five years from the date they are published and may modify them, if necessary. <Amended by Act No. 11994, Aug. 6, 2013>

(3) If the director of central management headquarters intends to produce or modify a national earthquake risk map under paragraphs (1) and (2), he/she shall consult with the head of the relevant central administrative agency. Where a national earthquake risk map is produced or modified, such fact shall be notified to the head of the relevant central administrative agency.

(4) The head of the relevant central administrative agency shall utilize national earthquake risk maps under paragraph (1) in the reduction of earthquake disasters, such as earthquake-proof design.

(5) The director of regional management headquarters may produce and utilize regional earthquake risk maps on a district under his/her jurisdiction. *<Amended by Act No. 11994, Aug. 6, 2013>*

Article 13 (Accumulation, Management, etc. of Geological and Ground Survey Data)

(1) The director of the central management headquarters may integrate and manage geological and ground survey data (including drilling surveys and physical investigation, geological surveying of the surface of the earth, excavation surveying of the foundation, etc.) in order to utilize them in preparation of earthquake risk maps prescribed in Article 12 and construction of a system to cope with earthquake and volcano disasters prescribed in Article 18. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(2) Geological and ground data surveyed in connection with investigation, research, formulation of various plans, implementation of projects, etc. promoted by the head of each agency in charge of emergency management shall be submitted to agencies designated by the Minister of Public Safety and Security, and the following matters shall be included therein: *<Amended by Act No. 12844, Nov. 19, 2014>*

1. The location, purpose, and date of geological and ground survey;
2. An investigator and the method of survey;
3. Geological and ground survey data;
4. Other matters determined and publicly announced by the Minister of Public Safety and Security.

(3) An agency designated by the Minister of Public Safety and Security under paragraph (2) shall manage geological and ground survey data conscientiously, and where the relevant central administrative agency or relevant research institutions, organizations, schools, etc. request the relevant data, it shall provide them with such data, except in extenuating circumstances. *<Amended by Act No. 12844, Nov. 19, 2014>*

Article 14 (Establishment of Standards of Earthquake-Proof Design)

(1) The head of the relevant central administrative agency shall determine the standards for earthquake-proof design by the relevant Acts and subordinate statutes, etc. for facilities prescribed by Presidential Decree among the following facilities apprehended to suffer from a disaster in the event of an earthquake, and shall take necessary measures for the implementation thereof: *<Amended by Act No. 9636, Apr. 22, 2009; Act No. 10754, May 30, 2011; Act No. 10911, Jul. 25, 2011; Act No. 12001, Aug. 6, 2013>*

1. Buildings prescribed by the Building Act;
2. Floodgates built and managed under the relevant Acts and subordinate statutes, such as the Public Waters Management Reclamation Act and the Tide Embankment Management Act;

3. Airport facilities prescribed by the Aviation Act;
4. Sluice gates of national rivers prescribed by the River Act;
5. Agricultural production infrastructure prescribed by the Rearrangement of Agricultural and Fishing Villages Act;
6. Multi-purpose dams prescribed by the Act on Construction of Dams and Assistance, etc. to their Environs;
7. Dams prescribed by Acts, other than the Act on Construction of Dams and Assistance, etc. to their Environs;
8. Road facilities established pursuant to the Road Act;
9. Gas supply facilities established pursuant to the Urban Gas Business Act, high-pressure gas storing places established pursuant to the High-Pressure Gas Safety Control Act, and liquefied petroleum gas storing facilities established pursuant to the Safety Control and Business of Liquefied Petroleum Gas Act;
10. Urban railroads prescribed by the Urban Railroad Act;
11. Pressure vessels, cranes, and lifts prescribed by the Occupational Safety and Health Act;
12. Petroleum refineries, petroleum reservoirs, and petroleum storing facilities prescribed by the Petroleum and Petroleum Substitute Fuel Business Act;
13. Oil pipelines prescribed by the Oil Pipeline Safety Control Act;
14. Wastewater treatment facilities of industrial complexes among wastewater treatment facilities prescribed by the Water Quality and Aquatic Ecosystem Conservation Act;
15. Water supply and waterworks prescribed by the Water Supply and Waterworks Installation Act;
16. Fishery harbors prescribed by the Fishing Villages and Fishery Harbors Act;
17. Nuclear reactors and related facilities prescribed by the Nuclear Safety Act;
18. Hydraulic power facilities and thermal power facilities for the production of electric power, power transmission facilities, power distribution facilities, and power transformation facilities prescribed by the Electric Utility Act;
19. Railroad facilities prescribed by the Framework Act on Railroad Industry Development;
20. Reclamation facilities prescribed by the Wastes Control Act;
21. Public sewage treatment plants prescribed by the Sewerage Act;
22. High-speed railroads prescribed by the Railroad Construction Act;
23. Harbor facilities prescribed by the Harbor Act;
24. Utility-pipe conduits prescribed by the National Land Planning and Utilization Act;
25. School facilities prescribed by the School Facilities Projects Promotion Act;
26. Tramways prescribed by the Tramway Transportation Act;
27. Amusement facilities prescribed by the Tourism Promotion Act;
28. General hospitals, hospitals, and intermediate care hospitals prescribed by the Medical Service Act;

29. Telecommunications facilities prescribed by the Framework Act on Telecommunications;

30. Other facilities prescribed by Presidential Decree.

(2) The head of the relevant central administrative agency who has determined standards for earthquake-proof design under paragraph (1) shall notify the director of the central management headquarters thereof, and the director of the central management headquarters may require the head of the relevant central administrative agency to complement them, if necessary. *<Amended by Act No. 11994, Aug. 6, 2013>*

(3) Where the head of a local government grants permission, etc. for facilities subject to earthquake-proof design under paragraph (1), he/she shall ascertain whether they are designed to be earthquake-proof.

(4) The director of central management headquarters may determine the design ground motions which commonly apply to the goals of State earthquake-proof performance, each standard of earthquake-proof design, and other matters prescribed by Presidential Decree, after consulting with the relevant central administrative agency, to utilize them for the standards for earthquake-proof design under paragraph (1) or other affairs. *<Newly Inserted by Act No. 12001, Aug. 6, 2013>*

(5) Where the head of a relevant central administrative agency deems necessary considering the characteristics, etc. of the relevant facilities, he/she may determine separate standards after consulting with the director of central management headquarters, notwithstanding the matters to be commonly applied to standards for earthquake-proof design under paragraph (4). *<Newly Inserted by Act No. 12001, Aug. 6, 2013>*

Article 15 (Formulation, etc. of Master Plans for Earthquake-Proof Reinforcement of Existing Facilities)

(1) The director of central management headquarters shall formulate a master plan for earthquake-proof reinforcement of existing facilities (hereinafter referred to as "master plan"), on a five-year basis, for the improvement in earthquake-proof performance of public facilities built before the relevant Acts and subordinate statutes are enacted or public facilities, the standards for earthquake-proof design of which have been intensified after the relevant Acts and subordinate statutes are enacted (hereinafter referred to as "existing facilities") among facilities subject to earthquake-proof design under Article 14, and report it to the central safety supervision committee under Article 9 of the Framework Act on the Management of Disasters and Safety. *<Amended by Act No. 11994, Aug. 6, 2013>*

(2) The following matters shall be included in a master plan:

1. Basic direction-setting concerning measures for earthquake-proof reinforcement;
2. Matters concerning evaluation of earthquake-proof performance;
3. Matters concerning a mid-term and long-term plan of earthquake-proof reinforcement;
4. Matters concerning the promotion of earthquake-proof reinforcement projects;
5. Research and development of technologies necessary for measures for earthquake-proof reinforcement;
6. Other matters prescribed by Presidential Decree concerning measures for earthquake-proof reinforcement.

(3) Where the director of central management headquarters intends to formulate a master plan, he/she shall consult with the heads of the relevant central administrative agencies, and where he/she formulates a master plan, he/she shall notify the heads of the relevant central administrative agencies and the heads of local governments. <Amended by Act No. 11994, Aug. 6, 2013>

(4) Where the director of central management headquarters deems necessary to formulate a master plan, he/she may request the head of the relevant central administrative agency and the head of a local government to submit related material. <Amended by Act No. 11994, Aug. 6, 2013>

(5) Paragraphs (1) through (4) shall apply mutatis mutandis where a master plan is amended.

Article 16 (Promotion, etc. of Earthquake-Proof Reinforcement of Existing Facilities)

(1) The head of the relevant central administrative agency and the head of each local government shall formulate and promote measures for earthquake-proof reinforcement on facilities under his/her jurisdiction in accordance with a master plan, and notify or report to the director of the central management headquarters of the promotion conditions, etc. <Amended by Act No. 11994, Aug. 6, 2013>

(2) The head of the relevant central administrative agency shall instruct the head of the agency in charge of emergency management who manages facilities under his/her jurisdiction to take measures for earthquake-proof reinforcement formulated pursuant to paragraph (1), and take measures necessary for the implementation thereof.

(3) The head of the agency in charge of emergency management shall promote earthquake-proof reinforcement, etc. in accordance with measures for earthquake-proof reinforcement instructed pursuant to paragraph (2).

(4) The director of the central management headquarters may inspect or evaluate the promotion conditions of measures for earthquake-proof reinforcement prescribed in paragraphs (1) through (3). <Amended by Act No. 11994, Aug. 6, 2013>

(5) Matters necessary for facilities subject to formulation of measures for earthquake-proof reinforcement prescribed in paragraph (1) and methods thereof, etc. shall be prescribed by Presidential Decree.

(6) The director of the central management headquarters shall publicly announce the results of promoting measures for earthquake-proof reinforcement, as prescribed by Presidential Decree. <Newly Inserted by Act No. 10754, May 30, 2011; Act No. 11994, Aug. 6, 2013>

Article 16-2 (Support for Earthquake-Proof Reinforcement of Privately-Owned Buildings)

(1) In order to encourage earthquake-proof reinforcement of existing privately-owned buildings that are not earthquake-proof, the head of a local government may grant a tax reduction or exemption, as prescribed by the Restriction of Special Local Taxation Act, and an insurance-related entity, institution, etc. prescribed by Presidential Decree may apply differential insurance premium rates in relation to earthquake disasters.

(2) Procedures, etc. for providing support for earthquake-proof reinforcement under paragraph (1) shall be prescribed by Ordinance of the Prime Minister. <Amended by Act No. 11690, Mar. 23, 2013; Act No. 12844, Nov. 19, 2014>>

(3) Details of support referred to in paragraph (1) may apply to buildings that adopt an earthquake-proof design at the time of initial construction, among buildings prescribed in the Building Act which are not subject to the standards for earthquake-proof design determined under Article 14 (1).

Article 17 (Earthquake-Proof Measures of Regional Disaster and Safety Measure Headquarters and General Situation Room)

(1) The head of a local government shall establish a regional disaster and safety measure headquarters under Article 16 of the Framework Act on the Management of Disasters and Safety (hereinafter referred to as "regional measure headquarters") and a disaster and safety management room under Article 18 of the same Act in facilities which have been earthquake-proof designed under Article 14 or for which earthquake-proof reinforcement has been finished under Article 16. *<Amended by Act No. 11994, Aug. 6, 2013>*

(2) The head of a local government shall prepare for earthquakes, etc. by taking earthquake-proof measures for related facilities, such as electric power and telecommunications, to maintain functions of the regional measure headquarters and the general situation room.

Article 18 (Construction of System to Cope with Earthquake and Volcano Disasters)

(1) The director of the central management headquarters and the directors of regional management headquarters shall construct and operate a system to cope with earthquake and volcano disasters (hereinafter referred to as "system to cope with earthquake and volcano disasters") for the prompt initial action, such as forecast of areas to be damaged and degree of damage, etc. through the prompt collection and analysis of seismic and volcanic information, emergency rescue and aid, and extinguishment of a fire, in order to reduce damage when earthquake and volcano disasters occur. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(2) The council of observation agencies shall construct a system for real-time sharing of observation data of earthquake and volcanic activity and provide the director of the central management headquarters and the directors of regional management headquarters referred to in paragraph (1) with such data. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(3) Where the director of the central management headquarters and the directors of regional management headquarters construct and operate a system to cope with earthquake and volcano disasters under paragraph (1), except where he/she cannot entrust the relevant project to the private sector or judges the development and operation of the relevant project by an administrative agency to be remarkably excellent in the aspects of economy, effectiveness, or security, he/she may entrust the private sector with the development and operation of the relevant project. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(4) Detailed matters of the system to cope with earthquake and volcanic disasters, such as the scope of construction, procedures for operation, and a utilization plan, shall be prescribed by Ordinance of the Prime Minister. *<Amended by Act No. 11690, Mar. 23, 2013; Act No. 12844, Nov. 19, 2014; Act No. 13442, Jul. 24, 2015>*

Article 19 (Construction of Emergency Support System)

Where the head of a central administrative agency, the director of a regional management headquarters, or the head of an agency in charge of emergency management having jurisdiction over the whole or part of a City/Do and Si/Gun/Gu formulates an emergency support plan under Articles 35 and 36 of the Countermeasures against Natural Disasters Act, he/she shall formulate such emergency support plan by utilizing the system to cope with earthquake and volcano disasters. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

Article 20 (Investigation and Analysis of Causes of Earthquake and Volcano Disasters and Organization, Operation, etc. of Committees for Investigating Causes of Earthquake and Volcano Disaster)

(1) If necessary, the director of the central management headquarters and the director of a regional management headquarters may investigate, analyze, and evaluate causes and response procedure of earthquake and volcano disasters in areas where earthquake and volcano disasters occurred. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(2) The director of the central management headquarters may organize and operate a central committee for investigating causes of earthquake disaster and a central committee for investigating causes of volcano disaster, including experts in fields related to earthquake and volcano, for the professional investigation, analysis, and evaluation on earthquake and volcano disasters. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(3) If earthquake and volcano disasters on a large scale occur in a foreign country, the director of the central management headquarters may dispatch an overseas committee for investigating causes of earthquake disaster and overseas committee for investigating causes of volcano disaster comprised of experts in fields related to earthquake and volcano, to the actual place. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(4) Detailed matters necessary for the organization and operation of the central committee for investigating causes of earthquake disaster, the central committee for investigating causes of volcano disaster, the overseas committee for investigating causes of earthquake disaster, and the overseas committee for investigating causes of volcano disaster referred to in paragraphs (2) and (3) shall be prescribed by Presidential Decree. *<Amended by Act No. 13442, Jul. 24, 2015>*

(5) The director of a City/DO management headquarters may organize and operate a regional committee for investigating causes of earthquake disaster, for investigation, analysis, and evaluation of causes of earthquake disasters in a region under his/her jurisdiction under paragraph (1), and detailed matters necessary therefor shall be prescribed by municipal ordinance. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

Article 21 (Risk Assessment of Damaged Facilities)

(1) Where damage has occurred from an earthquake, the director of regional management headquarters shall assess risk (hereinafter referred to as "risk assessment") on whether facilities can be used. *<Amended*

by Act No. 11994, Aug. 6, 2013>

(2) The director of regional management headquarters shall operate a risk assessment team of damaged facilities comprised of experts in related fields residing in a region under his/her jurisdiction for the prompt risk assessment under paragraph (1): Provided, That where experts in related fields residing in a region under his/her jurisdiction are insufficient, the risk assessment team may be comprised, including residents of a neighboring City/Do or Si/Gun/Gu.

(3) Detailed matters necessary for the organization, operation, etc. of a risk assessment team of damaged facilities in a region under paragraph (2) shall be prescribed by municipal ordinance.

Article 22 (Research and Technical Development for Reducing Earthquake and Volcano Disasters)

(1) The director of the central management headquarters and the head of each agency in charge of emergency management prescribed by Presidential Decree shall conduct investigations, technical development, and research on matters under his/her jurisdiction prescribed in Article 3 (3) to conduct research on earthquakes and volcanic activity and reduce earthquake and volcano disasters, and may pursue an international joint research project on the technology, system, etc. for preventing earthquake and volcano disasters. *<Amended by Act Nos. 11994 & 12001, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(2) The director of the central management headquarters shall set the earthquake-proof performance targets at the State level and conduct research and technical development on the classification, etc. of earthquake-proof grades. *<Amended by Act No. 11994, Aug. 6, 2013>*

(3) If necessary to conduct research on measures for preventing earthquake and volcano disasters and to reduce earthquake and volcano disasters, the director of the central management headquarters and the head of a relevant central administrative agency may request the head of a relevant administrative agency or the head of an observation agency to provide related data or cooperation for necessary matters. In such cases, the head of the relevant administrative agency or the head of the relevant observation agency shall comply with such request, except in extenuating circumstances. *<Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>*

(4) The director of the central management headquarters and the head of a relevant central administrative agency may provide administrative and financial support (including contributions to an institution or organization conducting research pursuant to Article 14 (1) of the Basic Research Promotion and Technology Development Support Act) for research and technical development by the head of an agency in charge of emergency management referred to in paragraph (1). *<Amended by Act No. 10445, Mar. 9, 2011; Act No. 11994, Aug. 6, 2013>*

(5) Matters necessary for administrative and financial support prescribed in paragraph (4) shall be prescribed by Presidential Decree.

Article 23 (Investigation and Research of Active Faults and Preparation, etc. of Active Fault Maps)

(1) The director of the central management headquarters shall conduct an investigation and research on seismically capable faults (hereinafter referred to as "active faults") to ensure the safety of the ground for cities, industrial complexes defined in subparagraph 8 of Article 2 of the Industrial Sites and Development

Act, and infrastructure facilities defined in subparagraph 1 of Article 2 of the Act on Public-Private Partnerships in Infrastructure. <Amended by Act No. 11020, Aug. 4, 2011; Act No. 11994, Aug. 6, 2013>

(2) The director of the central management headquarters shall build and manage a database on active faults investigated pursuant to paragraph (1), and may prepare and publish active fault maps. <Amended by Act No. 11994, Aug. 6, 2013>

(3) The director of the central management headquarters may advise complementation or reinforcement of existing facilities in areas with active faults under paragraph (2) in consultation with the head of a relevant central administrative agency, and when new facilities are built, he/she may advise that such new facilities be built in compliance with earthquake-proof standards established considering active faults. <Amended by Act No. 11994, Aug. 6, 2013>

Article 24 (Access to Land, etc.)

(1) If necessary for the production and utilization of coastal flooding forecast maps and flood trace maps, production and utilization of earthquake risk maps, accumulation and management of geological and ground survey data, investigation into and analysis of causes of earthquake and volcano disasters, risk assessment of damaged facilities, etc., investigation and research into active faults, and preparation of active fault maps, the director of the central management headquarters, the head of a regional management headquarters, or a person who was ordered, delegated, or entrusted by the director of the central management headquarters or the head of a regional management headquarters may access a third person's land or temporarily use a third person's land, and if particularly necessary, he/she may alter or remove trees, soil, stones, or other obstacles. <Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>

(2) Each person who intends to access a third person's land, temporarily use a third person's land, or alter or remove trees, soil, stones, or other obstacles pursuant to paragraph (1), shall first obtain consent from the owner, occupant, or manager (hereafter in this Article, referred to as "interested parties") of the relevant land or obstacles: Provided, That when interested parties are not in a site or their domicile or residence are unclear, and it is impossible to obtain consent therefrom, he/she shall obtain permission from the head of the competent Si/Gun/Gu.

(3) Each person who intends to perform any act under paragraph (1) shall carry a certificate evidencing his/her authority and produce it to interested parties.

Article 25 (Compensation for Losses)

(1) The State or local governments shall compensate for losses incurred by measures under Article 24 (1).

(2) With respect to compensation for losses under paragraph (1), a person who was incurred losses and the head of a central administrative agency, Mayor/Do Governor or head of a Si/Gun/Gu who took such measure shall consult.

(3) Where consultation under paragraph (2) is not effected, parties concerned may file an application for decision with the competent land expropriation committee under Article 51 of the Act on Acquisition of and Compensation for Land, etc. for Public Works Projects, as prescribed by Presidential Decree.

(4) Articles 83 through 86 of the Act on Acquisition of and Compensation for Land, etc. for Public Works Projects shall apply mutatis mutandis to a decision under paragraph (3).

Article 26 (Government Subsidies, etc.)

If necessary to smoothly promote the prevention of, provision against, action against, and recovery from earthquake and volcano disasters, the State may fully or partially bear expenses incurred therein (including expenses incurred in formulating and implementing measures for earthquake-proof reinforcement under Article 16 and compensation for losses under Article 25) or subsidize such expenses to agencies in charge of emergency management, such as local governments. <Amended by Act No. 12001, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>

Article 27 (Delegation and Entrustment of Authority)

(1) The director of the central management headquarters and the director of a regional management headquarters may delegate affairs, such as inspection of facilities, etc., investigation into and analysis of causes of earthquake and volcano disasters, and risk assessment of damaged facilities referred to in Article 24 (1), to the head of an agency under his/her control or the head of a local government, as prescribed by Presidential Decree. <Amended by Act No. 11994, Aug. 6, 2013; Act No. 13442, Jul. 24, 2015>

(2) The director of the central management headquarters and the director of a regional management headquarters may entrust affairs concerning Article 24 (1) to an expert, specialized institution, etc., as prescribed by Presidential Decree. <Amended by Act No. 11994, Aug. 6, 2013>

Article 28 (Penal Provisions)

Any person who refuses or interferes with access to land, temporary use thereof or alteration or removal of obstacles under Article 24 without justifiable grounds shall be punished by a fine not exceeding two million won.

Article 29 (Fines for Negligence)

(1) Any of the following persons shall be punished by a fine for negligence not exceeding three million won:

1. Any person who fails to measure seismic acceleration of major facilities, in violation of Article 6 (1);
2. Any person who interferes with investigation of flood traces, etc. or destroys an indication of flood traces without permission under Article 10 (3);
3. Any person who refuses the presentation of geological and ground survey data under Article 13 (2) or presents false data.

(2) Fines for negligence under paragraph (1) shall be imposed and collected by the Minister of Public Safety and Security, Mayor/Do Governor, or head of a Si/Gun/Gu (hereinafter referred to as "imposing agency"), as prescribed by Presidential Decree. <Amended by Act No. 12844, Nov. 19, 2014>

(3) Any person who is dissatisfied with a disposition of a fine for negligence under paragraph (2) may raise an objection to the imposing agency within 30 days from the date he/she has received a notice of such disposition.

(4) If any person subject to a disposition of a fine for negligence under paragraph (2) raises an objection under paragraph (3), the imposing agency shall notify the competent court of such fact, without delay, and the competent court, which, in turn, shall proceed to a trial on a fine for negligence pursuant to the Non-Contentious Case Litigation Procedure Act.

(5) If neither objection is raised nor is a fine for negligence paid within the period under paragraph (3), the fine for negligence shall be collected in the same manner as delinquent national or local taxes are collected.

ADDENDA

(1) (Enforcement Date) This Act shall enter into force on the date prescribed by Presidential Decree, but in any event, within one year after the date of its promulgation.

(2) Omitted.

ADDENDA <Act No. 9636, Apr. 22, 2009>

Article 1 (Enforcement Date)

This Act shall enter into force six months after the day of its promulgation.

Articles 2 through 8 Omitted.

ADDENDA <Act No. 10445, Mar. 9, 2011>

Article 1 (Enforcement Date)

This Act shall enter into force three months after the date of its promulgation.

Articles 2 through 4 Omitted.

ADDENDUM <Act No. 10754, May 30, 2011>

This Act shall enter into force six months after the date of its promulgation: Provided, That the amended provisions of Article 14 (1) 21 shall enter into force on the date of its promulgation.

ADDENDA <Act No. 10911, Jul. 25, 2011>

Article 1 (Enforcement Date)

This Act shall enter into force three months after the date of its promulgation.

Articles 2 through 5 Omitted.

ADDENDA <Act No. 11020, Aug. 4, 2011>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation. (Proviso Omitted.)

Articles 2 through 11 Omitted.

ADDENDA <Act No. 11495, Oct. 22, 2012>

Article 1 (Enforcement Date)

This Act shall enter into force six months after the date of its promulgation.

Articles 2 through 5 Omitted.

ADDENDA <Act No. 11690, Mar. 23, 2013>

Article 1 (Enforcement Date)

(1) This Act shall enter into force on the date of its promulgation.

(2) Omitted.

Articles 2 through 7 Omitted.

ADDENDA <Act No. 11994, Aug. 6, 2013>

Article 1 (Enforcement Date)

This Act shall enter into force six months after the date of its promulgation. (Proviso Omitted.)

Article 2 Omitted.

ADDENDUM <Act No. 12001, Aug. 6, 2013>

This Act shall enter into force one year after the date of its promulgation.

ADDENDA <Act No. 12844, Nov. 19, 2014>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation: Provided, That, among the Acts to be amended pursuant to Article 6 of the Addenda, each amended provision of an Act promulgated before this Act enters into force, but the date on which they are to enter into force, has not yet arrived, shall enter into force on the date the relevant Act enters into force, respectively.

Articles 2 through 7 Omitted.

ADDENDA <Act No. 13442, Jul. 24, 2015>

Article 1 (Enforcement Date)

This Act shall enter into force six months after its promulgation: Provided, That, the amended provisions of Article 8 (2) shall enter into force on the date of its promulgation.

Article 2 (Preparation for Enforcement of this Act)

The director of the central management headquarters, the directors of regional management headquarters, the Administrator of the Korea Meteorological Administration, etc. may make preparation necessary for installing observation facilities and equipment and formulating a plan for observation pursuant to the amended provisions of Article 5, providing education, training, and publicity of the

prevention of earthquake and volcano disasters pursuant to the amended provisions of Article 11, formulating comprehensive measures to reduce damage from volcanic ash pursuant to the amended provisions of Article 11-2, constructing a system to cope with earthquake and volcano disasters pursuant to the amended provisions of Article 18, and investigating and analyzing causes of earthquake and volcano disasters and organizing, operating, etc. committees for investigating disaster causes pursuant to the amended provisions of Article 20, before this Act enters into force.

Article 3 Omitted.

