

## Indonesia Sustainable Infrastructure

AN MINISTER OF PUBLIC WORK AND PEOPLE'S HOUSING OF THE REPUBLIC OF INDONESIA

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CONCERNING

GENERAL GUIDELINES IMPLEMENTATION OF SUSTAINABLE CONSTRUCTION ON THE RELATIONSHIP OF THE INDONESIAN RELIGION, LAW OF THE REPUBLIC OF INDONESIA

Considering

a. that the implementation of infrastructure in the Field of Public Works and Settlements must meet the provisions of environmental management and support sustainable development by taking into account the principles of benefit, safety, balance, and harmony of infrastructure with the environment;

b. that in the framework of realizing as referred to in letter a above, a General Guideline for the Implementation of Sustainable Construction in the Implementation of Infrastructure in the Field of Public Works and Settlement is required;

c. that based on the considerations referred to in paragraphs a and b, it is necessary to stipulate a Ministerial Regulation concerning General Guidelines for the Implementation of Sustainable Construction in the Implementation of Infrastructure in the Field of Public Works and Settlements; JDIH Ministry of PUPR

Bearing in mind:

1. Law Number 32 of 2009 concerning Environmental Protection and Management (State Gazette of the Republic of Indonesia Number 140 of 2009, Supplement to the State Gazette of the Republic of Indonesia Number 5059);
2. Law Number 1 of 2011 concerning Housing and Settlement Areas (State Gazette of the Republic of Indonesia of 2011 Number 7, Supplement to the State Gazette of the Republic of Indonesia Number 5188);
3. Government Regulation Number 29 of 2000 concerning Implementation of Construction Services (State Gazette of the Republic of Indonesia of 2000 Number 64, Supplement to the State Gazette of the Republic of Indonesia Number 3956), as amended by Government Regulation Number 59 of 2010 (State Gazette of the Republic of Indonesia of 2010 Number 95);
4. Government Regulation Number 30 Year 2000 concerning Implementation of Construction Services Development (State Gazette of the Republic of Indonesia Year 2000 Number 65, Supplement to State Gazette of the Republic of Indonesia Number 3957);

5. Government Regulation Number 36 of 2005 concerning Implementation Regulations of Law Number 28 of 2002 concerning Building Buildings (State Gazette of the Republic of Indonesia Number 83 of 2005, Supplement to State Gazette Number 4532);
6. Government Regulation Number 15 of 2010 concerning Spatial Planning (State Gazette of the Republic of Indonesia of 2010 Number 21, Supplement to the State Gazette of the Republic of Indonesia Number 5103);
7. Government Regulation Number 27 of 2014 concerning State Property (State Gazette of the Republic of Indonesia of 2014 Number 92, Supplement to the State Gazette of the Republic of Indonesia Number 5533);
8. Presidential Regulation of the Republic of Indonesia Number 7 of 2015 concerning Organization of State Ministries (State Gazette of the Republic of Indonesia of 2015 Number 8);
9. Presidential Regulation No. 15/2015 concerning the Ministry of Public Works and Public Housing (Statute Book No. 16/2015);
10. Regulation of the Minister of Public Works No. 08 / PRT / M / 2010 concerning the Organization and Work Procedures of the Ministry of Public Works;
11. Regulation of the Minister of Public Works Number 21 / PRT / M / 2010 concerning Organization of Technical Implementing Units in the Ministry of Public Works, as amended by Regulation of the Minister of Public Works Number 09 / PRT / M / 2011; JDIH Ministry of PUPR HAS DECIDED: To stipulate: REGULATION OF THE MINISTER OF PUBLIC WORK AND COMMUNITY HOUSING CONCERNING GENERAL GUIDELINES FOR IMPLEMENTATION OF SUSTAINABLE CONSTRUCTION ON THE IMPLEMENTATION OF SUSTAINABLE INFRASTRUCTURE FOR PUBLIC WORK AND SETTLEMENT.

CHAPTER 1 GENERAL PROVISIONS Part One Understanding Article 1 In this Ministerial Regulation what is meant by:

1. Sustainable construction is an approach in carrying out a series of activities needed to create a physical facility that meets economic, social and environmental objectives at this time and in the period will come, and meet sustainable principles.
2. Infrastructure in the Field of Public Works and Settlements is physical facilities to support community activities in terms of water resources, roads and bridges, buildings, housing and residential areas.
3. Sustainable infrastructure is infrastructure in the field of public works and settlements organized using a sustainable construction approach.
4. Implementation of infrastructure is an activity that includes the stages of programming, technical planning, construction, utilization and demolition.
5. Programming is initial planning to set goals, strategies, steps to be taken, schedules, and resource requirements, especially funding, to realize infrastructure.
6. Technical planning is an activity in the form of a process of thought, creation, and engineering in order to realize infrastructure.
7. Construction implementation is a series of activities to realize physical infrastructure that has been determined in the technical planning stage.

8. Utilization is a series of use and management activities, as well as efforts to maintain the reliability of infrastructure through maintenance, maintenance and periodic checks to always be worthy of function.

9. Demolition is the activity of dismantling or tearing down all or part of the infrastructure along with its complementary buildings.

10. Sustainable procurement is a series of activities carried out to obtain goods / services through providers of goods / services that meet sustainable principles so as to provide benefits not only to users of goods / services but also to the community and economy by minimizing the impact of environmental damage.

11. Technical Organization Unit is the Echelon 1 Organizational Unit at the Ministry of Public Works and Public Housing which carries out sustainable infrastructure.

12. Minister is the Minister of Public Works and Public Housing. JDIH Ministry of PUPR Part

## Two Purpose, Objectives and Scope Article 2

(1) This Ministerial Regulation is intended as a reference for the organizers of Infrastructure in Public Works and Settlements in implementing sustainable construction approaches in the administration of Infrastructure in Public Works and Settlements.

(2) This Ministerial Regulation aims to encourage the realization of Infrastructure in Public Works and Settlements that meet the requirements of technical reliability and sustainable principles.

(3) The scope of this Ministerial Regulation covers the implementation of sustainable construction, the commission for the implementation of sustainable construction, and the fostering of the implementation of sustainable construction in the administration of Infrastructure for Public Works and Settlements.

## CHAPTER II IMPLEMENTATION OF SUSTAINABLE CONSTRUCTION ON THE IMPLEMENTATION OF INFRASTRUCTURE FOR PUBLIC WORK AND SETTLEMENT Part One General Article 3

(1) In accordance with the Sustainable Construction approach, sustainable principles, which include economic, social and environmental aspects, must be applied in the use of resources used at each stage of General Section Article 3 (1) infrastructure management.

(2) Sustainable principles as referred to in paragraph (1) include:

- a. common goals, understanding and action plans;
- b. reducing the use of resources, whether in the form of land, materials, water, natural resources or human resources (reduce);
- c. reduction of waste generation, both physical and non-physical;
- d. reuse of resources that have been used previously (reuse);
- e. use of recycled resources;
- f. protection and management of the environment through conservation efforts;
- g. mitigating safety, health, climate change and disaster risks;

- h. orientation to the life cycle;
- i. orientation to achieving the desired quality;
- j. technological innovation for continuous improvement; and
- K. institutional support, leadership and management in implementation.

(3) The resources referred to in paragraph (1) include:

- a. Land;
- b. Energy; JDIH Ministry of PUPR c. Water; d. Material; and e. The ecosystem.

(4) The stages of infrastructure implementation as referred to in paragraph (1) include:

- a. Programming;
- b. Technical planning;
- c. Construction execution;
- d. Utilization; and
- e. Demolition.

(5) Infrastructure in the field of Public Works and Settlements organized using the Sustainable Construction approach as referred to in paragraph (1) can be given the title of sustainable infrastructure.

#### Article 4

(1) The Technical Organization Unit at the Ministry of Public Works and Public Housing is required to carry out sustainable infrastructure in accordance with the stipulated strategic plan.

(2) Plans for the implementation of sustainable infrastructure as referred to in paragraph (1) are set forth in the strategic plan document of the Ministry of Public Works and Public Housing, and / or in other separate planning documents which constitute further elaboration of the strategic plan document.

(3) In the event that the implementation of sustainable infrastructure as referred to in paragraph (1) has not been stated in the strategic plan document, and / or in the elaboration document, no later than the second year since the enactment of this Ministerial Regulation, the Technical Organization Unit must determine at least 1 (one) sustainable infrastructure implementation activities in the work unit.

#### Article 5

(1) Technical instructions in the implementation of sustainable infrastructure at each stage of operation refer to the technical requirements and technical requirements of sustainable infrastructure that must be determined by each Technical Organization Unit.

(2) The technical guidelines referred to in paragraph (1) contain technical requirements, technical requirements of sustainable infrastructure, general targets for minimizing carbon emissions, and rating criteria.

(3) In the event that the Technical Organization Unit does not yet have regulations on the sustainable infrastructure technical requirements as referred to in paragraph (1), the Technical Organization Unit can be guided by the regulations and practices of the implementation of sustainable infrastructure that already exists (best practices), until the technical requirements for sustainable infrastructure are established. JDIH Ministry of PUPR

(4) In the event that the Technical Organization Unit already has technical requirements for sustainable infrastructure as referred to in paragraph (1) before this Ministerial Regulation comes into force, the technical requirements must be adjusted to this Ministerial Regulation.

## Article 6

The implementation of infrastructure that has been or is being implemented, after being determined by the Minister, can be upgraded its function / performance into sustainable infrastructure based on this Ministerial Regulation.

## Part Two Programming Phase

## Article 7

(1) Programming of sustainable infrastructure must be carried out from the beginning by the Technical Organization Unit to ensure the availability, sustainability and sustainability of fulfilling resources in achieving the objectives at a later stage.

(2) The phase of sustainable infrastructure programming includes the following activities:

- a. The Technical Organization Unit determines sustainable infrastructure objects that will be held with reference to the Ministry of Public Works and Public Housing strategic plan documents and / or in other planning documents;
- b. determine the level of achievement of the implementation of sustainable infrastructure based on needs;
- c. identify the parties interested in programming, and build cooperation starting from the beginning of the stage;
- d. equating the vision of sustainability to all interested parties;
- e. determine the method of project delivery (project delivery system) in accordance with the complexity of sustainable infrastructure and capabilities;
- f. establish initial technical conceptions, choose technologies and plan financing for the implementation of sustainable infrastructure at all stages using the life cycle cost approach;
- g. reviewing compliance with the Spatial Plan, the Master Plan, and the feasibility of implementing sustainable infrastructure in terms of technical, economic, social, and its impact on the environment;
- h. if the initial technical conception, feasibility study, and / or other study at the programming stage is carried out by the service provider, the service provider selection process is based on the quality of the service provider that can accommodate the needs of the initial sustainable infrastructure assessment or refers to the applicable sustainable procurement process;

i. carry out programming of all stages of the implementation of sustainable infrastructure with clarity of scope, funding, and schedule in the form of work packages and risk management in their implementation; and JDIH Ministry of PUPR

j. prepare a final report on the programming stages containing the objectives, scope, funding, schedule, initial technical conception, feasibility, risk management, and methods for implementing sustainable infrastructure.

(3) The results of the programming stage activities are the programming documents.

(4) Steps and management techniques that must be carried out at the programming stage as referred to in paragraph (2) are listed in the appendix which is an inseparable part of this regulation.

### Part Three

#### Technical Planning Stage

#### Article 8

(1) Technical planning for sustainable infrastructure must be carried out in accordance with the technical requirements and technical requirements of sustainable infrastructure to ensure construction at the stage of construction implementation and infrastructure performance at the stage of utilization and demolition.

(2) The technical infrastructure planning phase includes the following activities:

a. identify interested parties, and involve them in technical planning activities;

b. if technical planning is carried out by the service provider, the service provider selection process is carried out based on the quality of the service provider with selection criteria that consider the relevant knowledge, expertise, and experience in the technical infrastructure sustainable planning or refer to the applicable sustainable procurement process;

c. re-communicating the objectives, scope, and targets of the implementation of sustainable infrastructure to all parties involved in technical planning;

d. establish sustainable infrastructure design criteria with reference to relevant technical and administrative requirements;

e. process integrated technical planning with all parties involved to achieve sustainable infrastructure goals;

f. ensure the quality of the results of technical planning by reviewing both internally the team and using independent parties if necessary; and

g. prepare the final report of the technical planning stage in the form of a technical plan report, drawing documents, specification documents, and estimated life cycle costs of implementing sustainable infrastructure.

(3) The results of the activities of the technical planning phase are technical planning documents.

(4) Steps and management techniques that must be carried out at the technical planning stage as referred to in paragraph (2) are listed in the appendix which is an integral part of this regulation. JDIH Ministry of PUPR

#### Fourth Section

## Stage of Construction Implementation

### Article 9

(1) Implementation of sustainable infrastructure construction must be carried out using a green construction approach and taking into account social and economic aspects at the site.

(2) The implementation phase of sustainable infrastructure construction includes the following activities:

- a. identify stakeholders, and involve them at the construction stage;
- b. selecting a professional construction service provider is carried out based on the quality of the service provider with evaluation criteria that consider the relevant knowledge, expertise and experience in the implementation of sustainable infrastructure construction or refer to the applicable sustainable procurement process.
- c. requiring professional construction implementers to carry out construction work in the field by adopting a green construction approach that includes green behavior and practices, the green construction process, and the green supply chain;
- d. carry out a series of construction activities by taking into account:
  1. the common goals of each party involved;
  2. the role of each party involved;
  3. agreed cooperation contracts; and
  4. setting realistic performance targets;
- e. ensure results from the construction implementation stage can be utilized by managers or users by involving prospective managers or users in receiving work results and training in the use of sustainable infrastructure; and
- f. submit results of construction implementation to prospective managers or users along with documentation or final reports on construction implementation in the form of work drawings (shop drawings), drawings built (asbuilt drawings), as well as manuals for the utilization and maintenance of sustainable infrastructure accompanied by a statement of the feasibility of utilization by the competent authority.

(3) The results of the activities of the construction implementation stage are construction implementation documents.

(4) Steps and management techniques that must be carried out at the stage of construction implementation as referred to in paragraph (2) are listed in the appendix which is an integral part of this regulation.

### Part Five

#### Utilization Stage

### Article 10

(1) Sustainable infrastructure must be utilized optimally and maintained so that its performance can be maintained in accordance with service life so that it can contribute to the achievement of objectives with the asset management approach. JDIH Ministry of PUPR

(2) Phase of sustainable infrastructure utilization includes the following activities:

- a. make plans for the use of sustainable infrastructure for the service life;
- b. disseminating, promoting and educating users to support the sustainable use of infrastructure;

- c. implement utilization in accordance with the pre-determined sustainable infrastructure design in accordance with sustainable principles;
  - d. manage a range of utilization activities, including monitoring and evaluating the condition of sustainable infrastructure components;
  - e. conduct a continuous infrastructure feasibility test periodically and after approaching the end of the service period;
  - f. improve the function or transfer the function of sustainable infrastructure but must be done at the request of the owner based on the results of the latest feasibility test;
  - g. conduct procurement of professional construction service providers based on the quality of service providers with evaluation criteria that consider the relevant knowledge, expertise and experience in activities related to the utilization and / or maintenance of sustainable infrastructure or refer to the applicable sustainable procurement process; and
  - h. conduct orderly documentation of all processes and results of a series of sustainable infrastructure utilization activities in the form of asset management reports, physical condition reports, and feasibility reports on the function of sustainable infrastructure.
- (3) The results of the utilization phase activities are utilization documents.
- (4) Steps and management techniques that must be carried out at the utilization stage as referred to in paragraph (2) are listed in the appendix which is an integral part of this regulation.

## Part Six

### Disassembly Stage

#### Article 11

- (1) Sustainable infrastructure can be demolished at the end of the service period with a deconstruction approach in order to achieve the objective of carrying out sustainable infrastructure in its entirety.
- (2) Implementation of the stages of dismantling sustainable infrastructure includes the following activities:
- a. obtain a permit from the authorized official based on a sustainable infrastructure feasibility test report;
  - b. make the dismantling plan by considering the dismantling method that is environmentally friendly and material or infrastructure components that can still be reused (reuse) and to get new material through the process of recycling (recycle); JDIH Ministry of PUPR
  - c. determine the service provider for the demolition carried out based on the level of reuse and recycle rate proposed by the prospective executor of the demolition or refers to the applicable sustainable procurement process;
  - d. undertake the demolition process in accordance with the demolition plan as referred to in letter b; and e. conduct orderly documentation of demolition activities related to processes and materials which can be reused and recycled.
- (3) The results of the demolition stage activities are the demolition documents.
- (4) Steps and management techniques that must be carried out at the demolition stage as referred to in paragraph (2) are listed in the appendix which is an integral part of this regulation.

## CHAPTER III



## COMMISSION FOR IMPLEMENTATION OF SUSTAINABLE CONSTRUCTION

### Article 12

(1) To support the implementation of Sustainable Construction in the administration of infrastructure in the field of public works and settlements, the Minister forms the Commission for the Implementation of Sustainable Construction, which consists of Echelon I Organizational Unit Organizations within the Ministry of Public Works and Public Housing.

(2) The Commission for the Implementation of Sustainable Construction as referred to in paragraph (1), has the duty to direct the implementation of sustainable infrastructure from the beginning to the end of the implementation stage.

(3) In carrying out the tasks referred to in paragraph (2), the Commission for the Implementation of Sustainable Construction has the following functions:

- a. Determine the activities of implementing sustainable infrastructure and integrating every stage of implementing sustainable infrastructure;
- b. provide general direction and techniques, criteria / targets, and criteria for rating (rating tools) in order to ensure the implementation of sustainable infrastructure;
- c. provide input for process improvement at each stage of the implementation of sustainable infrastructure based on the results of monitoring and evaluation reports; and
- D. report the results of the implementation of integrated infrastructure in an integrated manner

(4) The Commission for the Implementation of Sustainable Construction is assisted by a Permanent Secretariat located in the Echelon I Unit that conducts construction guidance.

(5) The Commission for the Implementation of Sustainable Construction as referred to in paragraph (1) shall be determined by a Ministerial Decree.

## CHAPTER IV

### Fostering IMPLEMENTATION OF SUSTAINABLE CONSTRUCTION ON INFRASTRUCTURE MANAGEMENT

### Article 13

(1) The Minister shall foster the implementation of sustainable construction in the administration of infrastructure.

(2) The implementation of fostering the implementation of sustainable construction in the implementation of sustainable infrastructure as referred to in paragraph (1), is carried out by the Echelon I Unit that carries out construction fostering.

(3) Guidance is carried out to organizational units in the Ministry of Public Works and Public Housing, provincial / district / city governments, service users, service providers, professional associations, and construction company associations as stakeholders in the implementation of sustainable infrastructure.

(4) Coaching as referred to in paragraph (1) includes:

- a. facilitate the harmonization of regulations related to the implementation of sustainable construction in the administration of infrastructure in the Ministry of Public Works and Public Housing;

- b. disseminating laws and regulations and implementing guidelines for sustainable construction in infrastructure management;
- c. facilitate assistance in the preparation of guidelines and technical standards for sustainable infrastructure;
- d. developing an incentive system to encourage the implementation of sustainable construction implementation in infrastructure management;
- e. encourage technological innovation, research and development, and technology verification in the context of implementing sustainable construction in infrastructure management;
- f. managing information systems, monitoring, and evaluating the implementation of sustainable construction in infrastructure management;
- g. supervise the implementation of sustainable construction in the administration of infrastructure in the Ministry of Public Works and Public Housing, together with the Organization Unit Echelon I; and
- h. organizing capacity building for human resources in the context of implementing sustainable construction in infrastructure, together with the Echelon I Organizational Unit.

## CHAPTER V

### CLOSING PROVISIONS

#### Article 14

This Ministerial Regulation shall come into force on the date of promulgation.

For public cognizance, Regulation shall be promulgated this Ministerial by placing it in the State Gazette of the Republic of Indonesia.