LAW OF THE REPUBLIC OF INDONESIA
NUMBER 3 OF 2022
ON
NATIONAL CAPITAL

BY THE BLESSINGS OF ALMIGHTY GOD

THE PRESIDENT OF THE REPUBLIC OF INDONESIA,

Considering : a. that the Unitary State of the Republic of Indonesia has been established to realize the purposes of establishing a state as stated in the Preamble of the 1945 Constitution of the Republic of Indonesia under Pancasila;

b. that improving the management of the National Capital area is a part of the efforts to realize the purposes of establishing a state as referred to in point a, namely to protect all the people of Indonesia and all the independence and the land that has been struggled for, to improve public welfare, to educate the life of the nation and to participate toward the establishment of a world order based on freedom, perpetual peace and social justice;

c. that apart from serving to fulfill the needs of the people of Indonesia, the governance of the National Capital is aimed at creating a safe, modern, sustainable, and resilient National Capital and at serving as a model for the development and management of other areas in Indonesia;

d. that up to the present, no law specifically governing matters concerning the National Capital has been made;

e. that Law Number 29 of 2007 on Provincial Goverment of the Special Capital Region of Jakarta as the National Capital of the Unitary State of the Republic of Indonesia only provides for the designation on the Province of the Special Capital Region of Jakarta as the National Capital of the Unitary State of the Republic of Indonesia;

f. that based on the considerations as referred to in point a, point b, point c, point d, and point e, it is necessary to enact a Law on National Capital;

Observing : Article 4 section (1), Article 5 section (1), Article 18 section (1), Article 18B section (1), Article 20, and Article 22D section (2) of the 1945 Constitution of the Republic of Indonesia;

With the Joint Approval of
THE HOUSE OF REPRESENTATIVES
and
THE PRESIDENT OF THE REPUBLIC OF INDONESIA

HAS DECIDED:

To enact : LAW ON NATIONAL CAPITAL.

CHAPTER I
GENERAL PROVISIONS

Article 1

In this Law:

1. National Capital means the National Capital of the Unitary State of the Republic of Indonesia.
2. National Capital named Nusantara and hereinafter referred to as Nusantara Capital means a special regional government unit at the provincial level, the area of which constitutes the seat of the National Capital as designated and governed under this Law.
3. State Institutions mean the institutions conducting the executive, legislative and judicial functions at the national level and other institutions as determined by the 1945 Constitution of the Republic of Indonesia and the laws.
4. Central Government means the President of the Republic of Indonesia who holds the power of governing the State of the Republic of Indonesia assisted by the Vice President and the ministers as referred to in the 1945 Constitution of the Republic of Indonesia.
5. President means the President of the Republic of Indonesia as referred to in the 1945 Constitution of the Republic of Indonesia.
6. House of Representatives (Dewan Perwakilan Rakyat) of the Republic of Indonesia hereinafter abbreviated as the DPR means the House of Representatives as referred to in the 1945 Constitution of the Republic of Indonesia.
7. Regional Representative Council (Dewan Perwakilan Daerah) of the Republic of Indonesia hereinafter abbreviated as the DPD means the Regional Representative Council as referred to in the 1945 Constitution of the Republic of Indonesia.
8. Governance of the Special Region of Nusantara Capital means the special regional governance in charge of administering government affairs in the Nusantara Capital.
9. Government of the Special Region of Nusantara Capital hereinafter referred to as Nusantara Capital Authority means the executor in the preparation, development, and relocation of the National Capital and the administrator of Governance of the Special Region of the Nusantara Capital.
10. Chairperson of the Nusantara Capital Authority means the Chairperson of the Government of the Special Region of Nusantara Capital.

11. Vice Chairperson of the Nusantara Capital Authority means the Vice Chairperson of the Government of the Special Region of Nusantara Capital whose task is to assist in executing the duties and functions of the Chairperson of the Nusantara Capital Authority.
12. National Strategic Area (Kawasan Strategis Nasional) of the Nusantara Capital hereinafter abbreviated as KSN of the Nusantara Capital means a special territory which territorial scope and functions are determined and regulated under this Law.
13. Master Plan of the Nusantara Capital means an integrated planning document to which the preparation, development, and relocation of the National Capital as well as the administration of the Governance of the Special Region of Nusantara Capital refer to.
14. State-Owned Assets mean all assets purchased or acquired at the expense of the State Budget or derived from other legitimate sources.
15. Local-Owned Assets mean all assets purchased or acquired through Local Budget or derived from other legitimate sources.
16. Land means the earth surface in the form of land or those covered by water, including the space over the ground and under the ground within certain limit the use and utilization of which are directly and indirectly related to the use and utilization of the earth surface.
17. Land Right (Hak Atas Tanah) hereinafter abbreviated as HAT means the right obtained from legal relation between a right holder and the Land, including the above-ground space, and/or the underground space to possess, own, use, utilize and preserve the Land, the above-ground space, and/or the underground space.

Article 2

The Nusantara Capital has a vision to become a world class city for all that is developed and managed to:

a. become a sustainable city in the world;
b. become adriving force of Indonesia's economy in the future; and
c. become a symbol of national identity that represents ethnic diversity in Indonesia, under Pancasila and the 1945 Constitution of the Republic of Indonesia.

Article 3

(1) This Law is made and implemented based on the following principles:
    a. faith in God;
    b. protection;
    c. humanity;
    d. nationalism;
    e. archipelagic state;
    f. unity in diversity;
    g. justice;
    h. equality before the law and in governance;
    i. order and legal certainty;

j. balance, harmony, and concordance; and
k. effectiveness and efficiency in governance.

(2) The Nusantara Capital is built and developed based on the following principles:
a. equality;
b. ecological balance;
c. resilience;
d. sustainable development;
e. livability;
f. connectivity; and
g. smart city.

CHAPTER II
ESTABLISHMENT, SPECIAL NATURE, OFFICIAL SEAT, SCOPE OF AREA, AND MASTER PLAN

Part One
Establishment

Article 4

(1) By this Law, it is established:
a. The Nusantara Capital as the National Capital; and
b. The Nusantara Capital Authority as a ministerial-level institution administering the Governance of the Special Region of the Nusantara Capital.

(2) The transfer of theofficial seat, functions, and roles of the National Capital from the Province of the Special Capital Region of Jakarta to the Nusantara Capital is decided by a Presidential Decree.

(3) The Nusantara Capital Authority as referred to in section (1) point b is responsible for the preparation, development, and relocation of the National Capital and the administration of the Special Governance of the Special Region of the Nusantara Capital.

Part Two
Official Seat and Special Nature

Article 5

(1) The Nusantara Capital serves a function as the National Capital of the Unitary State of the Republic of Indonesia where the central government undertakes its activities as well as serves as the official seat for foreign missions and international organizations/institutions.

(2) As a regional governance unit with special nature, the Governance of the Special Region of the Nusantara Capital manages and administers government affairs on its own as designatedand regulated under this Law.

(3) In exception to other regional governance units, in the Nusantara Capital only a national-level general election may be conducted.

(4) The Chairperson of the Nusantara Capital Authority is the Chairperson of the Government of the Special Region of the Nusantara Capital, the status of which is of the same level as the minister, and is appointed,

installed, and dismissed by the President after consultation with the DPR.

(5) Governance of the Special Regionof the Nusantara Capital performs the functions and roles of the special regional governance regulated under this Law, except as determined by the legislation as central government affairs.

(6) The Nusantara Capital Authority is entitled to issue a regulation to administer the Governance of the Special Region of the Nusantara Capital and/or carry out the preparation, development, and relocation of the National Capital.

(7) Further provisions regarding the format and procedure for the administration of the Governance of the Special Region of the Nusantara Capital, the making of regulations of the Nusantara National Capital on matters other than taxes and other levies, as well as the implementation of the preparation, development, and relocation of the National Capital by the Nusantara Capital Authority are regulated in a Presidential Regulation.

Part Three
Scope of Area

Article 6

(1) The Nusantara Capital is geographically located on:
   a. the North, at 117° 0' 31.292" East Longitude and 0° 38' 44.912" South Latitude;
   b. the South, at 117° 11' 51.903" East Longitude and 1° 15' 25.260" South Latitude;
   c. the West, at 116° 31' 37.728" East Longitude and 0° 59' 22.510" South Latitude; and
   d. the East, at 117° 18' 28.084" East Longitude and 1° 6' 42.398" South Latitude;

(2) The Nusantara Capital covers a land area of approximately 256.142 ha (two hundred fifty-six thousand one hundred and forty-two hectares) and territorial waters approximately 68.189 ha (sixty-eight thousand one hundred and eighty-nine hectares), sharing borders with:
   a. the south bordering Penajam Sub-District of North Penajam Paser Regency, Balikpapan Bay, West Balikpapan Sub-District, North Balikpapan Sub-District, and East Balikpapan Sub-District of Balikpapan City;
   b. the west bordering Loa Kulu Sub-District of Kutai Kartanegara Regency and Sepaku Sub-District of North Penajam Paser Regency;
   c. the north bordering Loa Kulu Sub-District, Loa Janan Sub-District, and Sanga-Sanga Sub-District of Kutai Kartanegara Regency; and
   d. the east bordering the Makassar Strait.

(3) The land area of the Nusantara Capital as referred to in section (2) covers the following areas:

a. the Nusantara Capital area of approximately 56.180 ha (fifty-six thousand one hundred and eighty hectares); and
b. the development area of the Nusantara Capital of approximately 199.962 ha (one hundred ninety-nine thousand nine hundred and sixty-two hectares).

(4) The Nusantara Capital area as referred to in section (3) point a includes the core area of the central government with an area size referring to the Master Plan of the Nusantara Capital and the Spatial Plan for KSN of the Nusantara Capital.

(5) The scope and area borders as referred to in section (2) are listed in Annex I to Map of Delineation and Coordinates of the Nusantara Capital as an integral part of this Law and determined as the KSN of the Nusantara Capital.

Part Four
Master Plan of the Nusantara Capital

Article 7

(1) The Master Plan of the Nusantara Capital constitutes an integrated planning document that serves as reference for the Nusantara Capital Authority and/or the Central Government in carrying out the preparation, development, and relocation of the National Capital and administration of the Governance of the Special Region of Nusantara Capital.

(2) The development and relocation of the Nusantara Capital pursuant to the Master Plan of the Nusantara Capital as referred to in section (1) are carried out in stages.

(3) The Master Plan of the Nusantara Capital as referred to in section (1) at least contains the following information:
a. an introduction;
b. the vision, objectives, fundamental principles, and key performance indicators;
c. fundamental principles of development; and
d. development stages and financing schemes.
listed in Annex II as an integral part of this Law.

(4) Details of the Master Plan of the Nusantara Capital as referred to in section (1), section (2), and section (3) are regulated in a Presidential Regulation.

(5) The Nusantara Capital Authority may amend the Master Plan of the Nusantara Capital, provided that:
a. in the event of an amendment to the content materials of the Master Plan of the Nusantara Capital as referred to in section (3), the amendment is made after obtaining approval from the President and subject to consultation with the DPR.
b. in the event of an amendment to the details of the Master Plan of the Nusantara Capital as referred to in section (4), the amendment is made after obtaining approval from the President.

(6) The amendment to the Master Plan of the Nusantara Capital as referred to in section (5) is regulated in a Presidential Regulation.

CHAPTER III
FORM, STRUCTURE, AUTHORITY, AND GOVERNMENT AFFAIRS

Part One
Form and Structure of Governance

Article 8
The administrator of the Governance of the Special Region of Nusantara Capital is the Nusantara Capital Authority.

Article 9
(1) The Nusantara Capital Authority is led by the Chairperson of the Nusantara Capital Authority and assisted by the Vice Chairperson of the Nusantara Capital Authority, appointed, installed, and dismissed by the President after consultation with the DPR.
(2) The inauguration of the Chairperson of the Nusantara Capital Authority and the Vice Chairperson of the Nusantara Capital Authority as referred to in section (1) is conducted by the President.

Article 10
(1) The Chairperson of the Nusantara Capital Authority and the Vice Chairperson of the Nusantara Capital Authority as referred to in Article 9 hold office for a period of 5 (five) years of the date of inauguration and may be reappointed and reinstalled for the same term of office thereafter.
(2) The Chairperson of the Nusantara Capital Authority and the Vice Chairperson of the Nusantara Capital Authority as referred to in Article 9 may be dismissed at any time by the President before the term of office as referred to in section (1) concludes.
(3) For the first time the Chairperson of the Nusantara Capital Authority and the Vice Chairperson of the Nusantara Capital Authority are appointed and installed by the President at the latest 2 (two) months after this Law is promulgated.

Article 11
(1) Provisions regarding the organizational structure, duties, authority, and work procedures of the Nusantara Capital Authority are regulated in a Presidential Regulation.
(2) The organizational structure and the filling of the positions of the Nusantara Capital Authority take into consideration the stages of the preparation, development and relocation of the Nusantara Capital and the needs for the administration of Governance of the Special Region of Nusantara Capital.

Part Two
Authority and Government Affairs

Article 12

(1) The Nusantara Capital Authority as the administrator of the Governance of the Special Region of Nusantara Capital is granted special authority under this Law.
(2) The special authority as referred to in section (1) includes, the authority to grant an investment permit, provide ease of doing business, and grant a special facility to a party who supports financing for the preparation, development, and relocation of the Nusantara Capital, and the further development of the Nusantara Capital and partner regions.
(3) Further provisions regarding the special authority as referred to in section (1) and section (2) are regulated in a Government Regulation after consultation with the DPR.

Article 13

(1) Apart from the provisions of legislation on electoral districts for general elections, the Nusantara Capital may only hold the General Election of the President and the Vice President, a general election to select members of the DPR, and a general election to select members of the DPD.
(2) In the event that the provision as referred to in section (1) results in the change in the calculation of the seats of members of the Regional House of Representatives in an area directly bordering the Nusantara Capital, the number of seats of the the Regional House of Representatives in such region refers to the provisions of legislation.
(3) The preparation and determination of the electoral districts for members of the DPR and members of the DPD in the Nusantara Capital are carried out by the General Election Commission of the Republic of Indonesia in consultation with the Nusantara Capital Authority.

CHAPTER IV
AREA DIVISION

Article 14

(1) The area of the Governance of the Special Region of Nusantara Capital is divided into several areas, the form, number and structure of which are subject to the needs.
(2) Further provisions regarding the division of the area of the Nusantara Capital as referred to in section (1) are regulated in a Presidential Regulation.

CHAPTER V
SPATIAL PLANNING, LAND AFFAIRS AND ASSIGNMENT OF LAND RIGHTS, ENVIRONMENT, DISASTER MANAGEMENT, AND DEFENSE AND SECURITY

Part One
Spatial Planning

Article 15

(1) The spatial planning of the Nusantara Capital refers to:
   a. the National Spatial Plan;
   b. the Interregional Territory Zoning Plan of the Makassar Strait;
   c. the Kalimantan Island Spatial Plan;
   d. the Spatial Plan for the KSN of the Nusantara Capital; and
   e. the Detailed Spatial Plan of the Nusantara Capital .

(2) The provisions regarding the Spatial Plan for the KSN of the Nusantara Capital as referred to in section (1) point d are regulated in a Presidential Regulation.

(3) The Spatial Plan for the KSN of the Nusantara Capital as referred to in section (1) point d is developed in accordance with the depth of content of the City-Level Spatial Plan with a scale of 1:25.000.

(4) Provisions regarding the Detailed Spatial Plan of the Nusantara Capital as referred to in section (1) point e are regulated in a Regulation of the Chairperson of the Nusantara Capital Authority.

Part Two
Land Affairs and Assignment of Land Rights

Article 16

(1) The Land acquired by the Nusantara Capital Authority and/or the ministries/institutions in the Nusantara Capital is made through the mechanism of forest area release and the mechanism of Land acquisition in accordance with the provisions of legislation.

(2) The Land acquisition as referred to in section (1) is made by the mechanism of the Land acquisition as regulated under the legislation in the field of land acquisition for development in the public interest or direct land acquisition.

(3) Land for development in the public interest in the Nusantara Capital constitutes a type of land acquisition for development in the public interest.

(4) In the event that land acquisition is carried out by the mechanism of land acquisition for development in the public interest, preparations are made by the Nusantara Capital Authority.

(5) The decision on the Land acquisition location in the Nusantara Capital is issued by the Chairperson of the Nusantara Capital Authority.

(6) The Nusantara Capital Authority is granted the right to use and/or the right to manage the Land in accordance with the provisions of legislation.

(7) The Nusantara Capital Authority is authorized to enter into a HAT agreement with any individual or legal entity in the Nusantara Capital.
(8) The Nusantara Capital Authority may provide a guarantee on the extension and renewal of the HAT over the right to manage in accordance with the requirements as set forth in the agreement.
(9) Under certain conditions, the period of the agreement as referred to in section (7) is aligned with the needs.
(10) The HAT located in the Nusantara Capital is required to be utilized in accordance with the purpose of granting its right.
(11) The HAT granted and not utilized in accordance with its intended designation may be forfeited.
(12) Transfer of the HAT in the Nusantara Capital is subject to the approval from the Chairperson of the Nusantara Capital Authority.

Article 17

The Nusantara National Capital Authority has the right to be prioritized in the purchase of Land in the Nusantara Capital.

Part Three
Protection and Management of the Environment

Article 18

(1) The protection and management of the environment in the Nusantara Capital are carried out based on the Master Plan of the Nusantara Capital and the Spatial Plan for the KSN of the Nusantara Capital by considering the aspects of environmental supporting capacity and environmental carrying capacity in accordance with the provisions of legislation.
(2) The protection and management of the environment as referred to in section (1) are carried out by the Nusantara Capital Authority, including the monitoring, control, and evaluation of the quality of the environment in the Nusantara Capital in accordance with the provisions of legislation.
(3) The protection and management of the environment as referred to in section (1) include but not limited to:
    a. determining a green area that supports the environmental balance and biodiversity;
    b. applying renewable energy and energy efficiency;
    c. managing an environment-oriented urban functional area; and
    d. applying the garbage and waste management based on the principle of circular economy.

Part Four
Disaster Management

Article 19

Disaster management in the Nusantara Capital is carried out by the Nusantara Capital Authority by referring to the Master Plan of the Nusantara Capital and the Spatial Plan for the KSN of the Nusantara Capital.

Part Five
Defense and Security

Article 20

Defense and security in the Nusantara Capital are implemented based on the defense and security system and strategy integrated with the Master Plan of the Nusantara Capital and the Spatial Plan for the KSN of the Nusantara Capital.

Article 21

The spatial planning, land affairs and transfer of land rights, the environment, disaster management, as well as defense and security as referred to in Article 15 to Article 20 are implemented by considering and providing the protection of individual rights and communal rights of the *adat* communities and cultural values that reflect local wisdom.

CHAPTER VI
RELOCATION OF SEATS OF STATE INSTITUTIONS, STATE CIVIL APPARATUS, FOREIGN MISSIONS, AND REPRESENTATIONS OF INTERNATIONAL ORGANIZATIONS/INSTITUTIONS

Article 22

(1) State Institutions relocate their seats and implement their duties, functions, and roles in stages in the Nusantara Capital.
(2) The relocation of the seats of the State Institutions in stages as referred to in section (1) is carried out based on the Master Plan of the Nusantara Capital.
(3) The Central Government determines Non-ministerial Government Institutions, Non-structural Institutions, other government institutions, and state civil apparatus not relocated to the Nusantara National Capital.
(4) Foreign missions and representations of international organizations/institutions will be seated in the Nusantara Capital subject to their respective readiness.
(5) Further provisions regarding the relocation of State Institutions, state civil apparatus, foreign missions and representations of international organizations/institutions as referred to in section (1), section (2), section (3), and section (4) are regulated in a Presidential Regulation.

CHAPTER VII
FUNDING AND MANAGEMENT OF STATE BUDGET

Part One
Funding

Article 23

(1) In the context of the preparation, development, and relocation of the Nusantara Capital, and the

administration of Governance of the Special Region of Nusantara Capital, the President's authority as the administrator of the state finance is delegated to the Chairperson of the Nusantara Capital Authority.

(2) The Chairperson of the Nusantara Capital Authority as referred to in section (1) acts in his/her as the budget user/asset user for the Nusantara Capital.

Article 24

(1) Funding for the preparation, development, and relocation of the Nusantara Capital, and the administration of Governance of the Special Region of Nusantara Capital is derived from:
   a. the State Budget; and/or
   b. other legitimate sources in accordance with the provisions of legislation.

(2) The funding allocation as referred to in section (1) refers to:
   a. the Master Plan of the Nusantara Capital and/or the Medium-Term Development Plan; and
   b. the provisions of legislation governing the State Budget and/or other legitimate sources.

(3) The preparation, development, and relocation of the Nusantara Capital as referred to in section (1) are determined as a national priority program for a minimum period of 10 (ten) years in the government's work plan as of the entry into force of this Law or at least up to the completion of stage 3 (three) in the stages of development of the Nusantara Capital as specified in the Master Plan of the Nusantara Capital.

(4) In the context of funding for the administration of the Governance of the Special Region of the Nusantara National Capital as referred to in section (1), the Nusantara Capital Authority may impose special taxes and/or special levies in the Nusantara Capital.

(5) The regional taxes and regional levies as regulated in the provisions of legislation apply mutatis mutandis as special taxes and special levies as referred to in section (4).

(6) The imposition of special taxes and/or special levies in the Nusantara Capital as referred to in section (5) is based on the regulation issued by the Nusantara Capital Authority after approval from the DPR has been obtained.

(7) Further provisions regarding the funding as referred to in section (1), section (4), section (5), and section (6) are regulated in a Government Regulation.

Part Two

Preparation of Work Plan, Implementation, and Accountability of the State Budget of the Nusantara Capital

Article 25

(1) The Chairperson of the Nusantara Capital Authority in his/her as the budget user/assets user as referred to in Article 23 section (2) prepares a work plan and budget of the Nusantara Capital.

(2) In the event that the Nusantara Capital Authority earns revenues from other legitimate sources as referred to in Article 24 section (1) point b and/or revenues from special taxes and/or special levies as referred to in Article 24 section (4), the Chairperson of the Nusantara Capital Authority will develop a revenue plan of the Nusantara Capital.
(3) Further provisions regarding the preparation of the work plan and budget of the Nusantara Capital are regulated in a Government Regulation.

Article 26

(1) The implementation and accountability of the budget of the Nusantara Capital as referred to in Article 25 are carried out in accordance with the budget management of the Nusantara Capital.
(2) The procedure for the implementation and accountability of the budget of the Nusantara Capital as referred to in section (1) is regulated in a Government Regulation.

Part Three
Management of State-Owned Assets

Article 27

In the context of the relocation of the National Capital, the management of State-Owned Assets previously used by the Ministries/Institutions in the Province of the Special Region of Jakarta and /or other provinces is required to be transferred to the minister in charge of administering government affairs in the field of finance.

Article 28

(1) In the context of development in the Nusantara Capital and the implementation of the Governance of the Special Region of the Nusantara Capital, State-Owned Assets are managed by the minister in charge of administering government affairs in the field of finance.
(2) The management of State-Owned Assets as referred to in Article 27 and section (1) may be carried out by:
    a. transfer; and/or
    b. utilization.
(3) Transfer of State-Owned Assets carried out in the manner as referred to in section (2) point a may not be made against any asset that has the following criteria of:
    a. being a cultural heritage;
    b. having a special meaning for history, science, education, religion, and/or culture; and
    c. having a cultural value for the strengthening of the nation's character.

Article 29

(1) In the context of the transfer as referred to in Article 28 section (2) point a, the business enterprise selection may be made by way of:

a. appointment of a business entity which capital is fully or partially owned by the state; and/or
b. tender.

(2) Transfer of State-Owned Assets as referred to in Article 28 section (2) point a with a value up to Rp100,000,000,000.00 (one hundred billion rupiah) is made with the approval of the minister administering government affairs in the field of finance.

(3) Transfer of State-Owned Assets as referred to in Article 28 section (2) point a with a value exceeding Rp100,000,000,000.00 (one hundred billion rupiah) is made with the approval of the President.

(4) Transfer of State-Owned Assets as referred to in Article 28 section (2) point a with a value up to Rp100,000,000,000.00 (one hundred billion rupiah) is reported to the DPR in accordance with the mechanism of state financial accountability.

(5) In the context of the utilization as referred to in Article 28 section (2) point b, the business entity selection may be made by way of:
a. appointment of a business entity whose capital is fully or partially owned by the state; and/or
b. tender.

Article 30

(1) Land in the Nusantara Capital is determined as:
a. State-Owned Assets; and/or
b. an asset in the possession of the Nusantara Capital Authority.

(2) The Land determined as the State-Owned Assets as referred to in section (1) point a is the Land that is related to the administration of governance and has been given the right to use.

(3) The Land determined as an asset in the possession of the Nusantara Capital Authority as referred to in section (1) point b is the Land that is not related to the administration of governance.

Article 31

State-Owned Assets required by the Nusantara Capital Authority to support the administration of the Governance of the Special Region of the Nusantara Capital are provided through:
a. the State Budget; and/or
b. other legitimate sources in accordance with the legislation.

Article 32

Local-Owned Assets existing in the Nusantara Capital are transferred to the Central Government and determined as:
a. State-Owned Assets; and/or
b. an asset in the possession of the Nusantara Capital Authority.

Article 33

The Chairperson of the Nusantara Capital Authority constitutes the asset user of the State-Owned Assets and the asset in the possession existing under his/her management.

Article 34

The minister administering government affairs in the field of finance develops a plan for the utilization of State-Owned Assets as referred to in Article 28 section (2) point b.

Article 35

Further provisions regarding the management of State-Owned Assets and assets in the possession as referred to in Article 27 to Article 34 are regulated in a Government Regulation.

Article 36

(1) The Nusantara Capital Authority starts operating at the latest at the end of the year 2022.
(2) The ministries/institutions conduct the preparation and/development of the Nusantara Capital pursuant to their respective duties and functions by referring to the Master Plan of the Nusantara Capital until the commencement of the operation of the Nusantara Capital Authority as referred to in section (1).
(3) When the Nusantara Capital Authority has commenced operations as referred to section (1), the preparation and/or development carried out by the ministries/institutions as referred to in section (2) are under the coordination of the Nusantara Capital Authority.
(4) Beginning in 2023, the preparation and/or development of the Nusantara Capital that have previously been carried out by the ministries/institutions may be transferred to the Nusantara Capital Authority or continued by the ministries/institutions concerned.
(5) State-Owned Assets produced by the ministries/institutions in the context of development in the Nusantara National Capital as referred to in section (3) and section (4) are transferred to the Nusantara National Capital Authority commencing in 2023, unless otherwise determined by the minister administering government affairs in the field of finance.
(6) Management of the State-Owned Assets transferred to the Nusantara Capital Authority as referred to in section (5) becomes the right and obligation of the Nusantara National Capital Authority as the asset user as of the transfer.
(7) Further provisions regarding the transfer as referred to in section (4) to section (6) are regulated in a Government Regulation.

CHAPTER VIII
PUBLIC PARTICIPATION

Article 37

(1) The public may participate in the process of the preparation, development, relocation, and management of the National Capital.
(2) The public participation as referred to in section (1) may be conducted in the form of:
    a. public consultation;
    b. deliberation to reach consensus;
    c. partnership;
    d. dissemination of aspirations;
    e. other engagements in accordance with the legislation.

CHAPTER IX
MONITORING AND REVIEW

Article 38

The DPR through its organ in charge of legislation affairs may monitor and review the implementation of this Law under the mechanism of law on legislation-making.

CHAPTER X
TRANSITIONAL PROVISIONS

Article 39

(1) The seat, function, and role of the National Capital remain in the Province of the Special Region of Jakarta until the date of the relocation of the National Capital from the Special Administrative Region of Jakarta to the Nusantara Capital has been determined by virtue of a Presidential Decree.
(2) The Nusantara Capital Authority starts administering the Governance of the Special Region of the Nusantara Capital as of the date of determination of the relocation of the Capital as referred to in section (1).
(3) The Local Government of the Province of East Kalimantan, the Local Government of Kutai Kartanegara Regency, and the Local Government of the Regency of North remain to administer the local government affairs in the region in accordance with the provisions of legislation, except for any authority and permits in relation to the preparation, development, and relocation of the National Capital, until the date of determination of the relocation of the National Capital as referred to in section (1).
(4) The Local Government of the Province of East Kalimantan, the Local Government of Kutai Kartanegara Regency, and the Local Government of the Regency North Penajam Paser remain to impose regional taxes and levies in accordance with the provisions of legislation until the determination of relocation of the National Capital as referred to in section (1).

CHAPTER XI
CLOSING PROVISIONS

Article 40

(1) At the time this Law comes into force, provisions of:
   a. Article 1 point 3 of Law Number 25 of 1956 on the Establishment of Autonomous Regions of the West Kalimantan, South Kalimantan, and East Kalimantan Provinces (State Gazette of the Republic of Indonesia of 1956 Number 65, Supplement to the State Gazette of the Republic of Indonesia Number 1106);
   b. Article 5 and Article 6 of Law Number 47 of 1999 on the Establishment of Nunukan Regency, Malinau Regency, West Kutai Regency,East Kutai Regency, and Bontang City (State Gazette of the Republic of Indonesia of 1999 Number 175, Supplement to the State Gazette of the Republic of Indonesia Number 3896); and
   c. Article 3 and Article 5 of Law Number 7 of 2002 on the Establishment of North Penajam Paser Regency in the Province of East Kalimantan (State Gazette of the Republic of Indonesia of 2002 Number 20 Supplement to the State Gazette of the Republic of Indonesia Number 4182),

   are amended in accordance with the provisions of this Law.
(2) The provisions as referred to in section (1) apply for a maximum period of 2 (two) years as of the promulgation of this Law.

Article 41

(1) With the issuance of the Presidential Decree as referred to in Article 39 section (1), the provisions of Article 3, Article 4 except the function as an autonomous region, and Article 5 of Law Number 29 of 2007 on the Provincial Governance of the Special Capital Region of Jakarta as the National Capital of the Unitary State of the Republic of Indonesia are repealed and declared ineffective.
(2) Within a maximum period of 2 (two) years as of the promulgation of this Law, Law Number 29 of 2007 on the Provincial Governance of the Special Capital Region of Jakarta as the National Capital of the Unitary State of the Republic of Indonesia is amended in accordance with the provisions of this Law.
(3) The amendment to the law as referred to in section (2) applies when the Presidential Decree on the relocation of the National Capital from the Province of the Special Capital Region of Jakarta to the Nusantara Capital as referred to in Article 39 section (1) is issued.
(4) The amendment to the law as referred to in section (2) regulates the special nature of Jakarta.

Article 42

At the time this Law comes into force:

a. all provisions of the legislation in contradiction to the provisions specifically regulated in this Law; and
b. the legislation governing provisions on regional governance,

are declared ineffective in the event of the preparation, development, and relocation of the National Capital and the administration of the Governance of the Special Region of the Nusantara National Capital.

Article 43

The implementing regulations as referred to in Article 5 section (7) specifically in respect of the preparation, development, and relocation of the National Capital by the Nusantara Capital Authority, Article 7 section (4), Article 11 section (1) specifically in respect of the organizational structure and the filling of the positions in the Nusantara Capital Authority in the implementation of the preparation, development, and relocation of the National Capital, Article 15 section (2), Article 24 section (7), Article 25 section (3), Article 26 section (2), and Article 35 are required to be issued within a maximum period of 2 (two) months as of the promulgation of this Law.

Article 44

This law comes into force on the date of its promulgation.

In order that every person may know hereof, it is ordered to promulgate this Law by its placement in the State Gazette of the Republic of Indonesia.

Enacted in Jakarta
15 February 2022

PRESIDENT OF THE REPUBLIC OF INDONESIA,

signed

JOKO WIDODO

Promulgated in Jakarta
15 February 2022

MINISTER OF LAW AND HUMAN RIGHTS
OF THE REPUBLIC OF INDONESIA,

signed

YASONA H. LAOLY

STATE GAZETTE OF THE REPUBLIC OF INDONESIA OF 2022 NUMBER 41

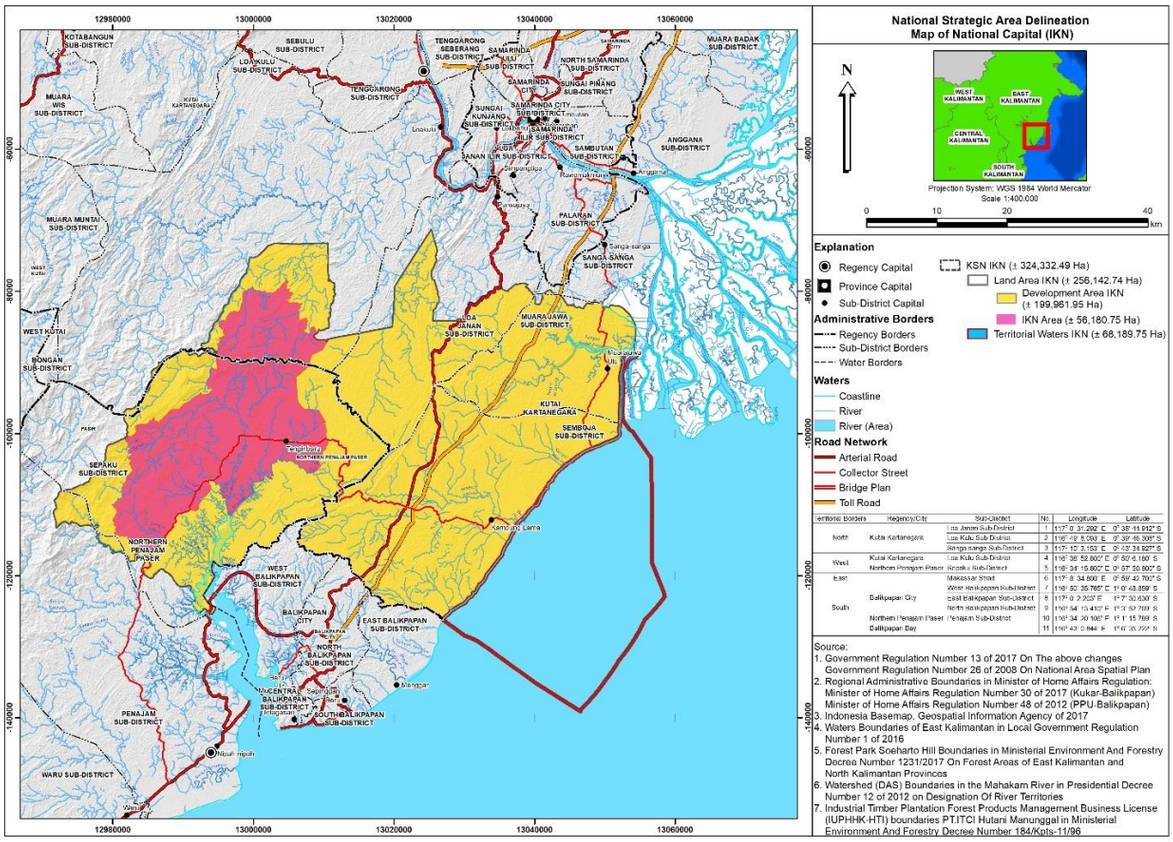
Jakarta, 28 July 2023
Has been translated as an Official Translation
on behalf of the Minister of Law and Human Rights
of the Republic of Indonesia
DIRECTOR GENERAL OF LEGISLATION,

DIREKTUR JENDERAL
KEMENTERIAN HUKUM DAN HAK ASASI MANUSIA RI
PERATURAN PERUNDANG-UNDANGAN
PENGAYOMAN

ASEP N. MULYANA

ANNEX I TO
LAW OF THE REPUBLIC OF INDONESIA
NUMBER 3 OF 2022
ON
NATIONAL CAPITAL

NATIONAL STRATEGIC AREA DELINEATION MAP OF NATIONAL CAPITAL



PRESIDENT OF THE REPUBLIC OF INDONESIA

Signed

JOKO WIDODO

ANNEX II TO
LAW OF THE REPUBLIC OF INDONESIA
NUMBER 3 OF 2022
ON
NATIONAL CAPITAL

NATIONAL CAPITAL MASTER PLAN

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CHAPTER I
INTRODUCTION

A. BACKGROUND

Indonesia has set the goal to become the top five economies of the world and a high-income per capita country in 2045. The goal is founded on the four main pillars of the Indonesian Vision 2045, namely human development and mastery of science and technology (IPTEK), sustainable economic development, equitable development, and strengthening national resilience and governance. The relocation of the National Capital is carried out as one of the strategies to realize Indonesia's 2045 economic target, namely more inclusive and equitable economic growth through accelerated development of Eastern Indonesia.

The Nusantara National Capital, hereinafter referred to as IKN, has a central function and becomes a symbol of a state that represents the identity of the nation and state. Therefore, the relocation and development of the new capital needs to be based on state-of-the-art urban development principles and the long-term needs and vision of the nation. The planning paradigms and principles of IKN development are laid down as important considerations in the development of the new location.

The selection of the new location of IKN is based on the technical feasibility study conducted in 2018-2019. The relocation of the IKN to Kalimantan is based on several considerations of regional advantages. First, the location is very strategic because it is positioned in the center of the Indonesian territory traversed by the Indonesian archipelagic sea lane (*alur laut kepulauan Indonesia,* ALKI) II of the Makassar Strait which is also the main national and regional sea lane. Second, it has relatively complete infrastructure, namely decent airports, sea ports and toll roads as well as other infrastructures, such as sufficient energy and drinking water networks. Third, IKN is located within close proximity to two well-developed supporting cities, namely Balikpapan City and Samarinda City. Fourth, the availability of adequate amount of government-controlled land needed for the development of the IKN. Fifth, it has minimum risk of natural disaster. The relocation of the IKN to Kalimantan is in line with the vision to develop a new economic 'center of gravity' in the center of Nusantara. In addition, the planning of IKN is prepared based on recommendations from the results of the Rapid Assessment of the Strategic Environmental Assessment (*Kajian Lingkungan Hidup Strategis, KLHS*) by the Ministry of Environment and Forestry in 2019, and is enhanced further with the IKN Master Plan KLHS conducted by the Ministry of National Development Planning/National Development Planning Agency in 2020.

The selected location is planned to be able to provide ample opportunities for regions outside Java to develop and contribute to equitable development. The IKN to be developed is also a IKN that represents:

a. the national identity: an activity center that represents the identity, social character, unity, and greatness of the nation. In other words, IKN is planned to reflect the uniqueness and diversity of the Indonesian nation;
b. smart, green, and sustainable city: a city that manages its resources efficiently and provides effective services. This is achieved through efficient use of water and energy resources, waste treatment, integrated transportation modes, a healthy environment, and a synergy between the natural and artificial environments;
c. modern city with international standards: progressive, innovative, and competitive in terms of technology, architecture, urban planning, and social issues, as well as equipped with world-class infrastructure, and connected to various other urban centers on a global level;
d. effective and efficient governance: the relocation of the central government institutions with new ways of working can increase the capacity and potential of the state civil apparatuses; and
e. equitable economic distribution in the Eastern Region by developing clean and high-tech industries, as well as encouraging an economic sector that is globally competitive.

The construction and development of IKN is planned to be gradually implemented until 2045. The initial stage of the development takes place in the period of 2022-2024, and in 2024 the initial relocation is targeted to be carried out. In order to prepare for this, a Master Plan is needed as a reference for the planning preparation and implementation of the development and relocation of IKN.

B. GOALS AND OBJECTIVES OF IKN MASTER PLAN DEVELOPMENT

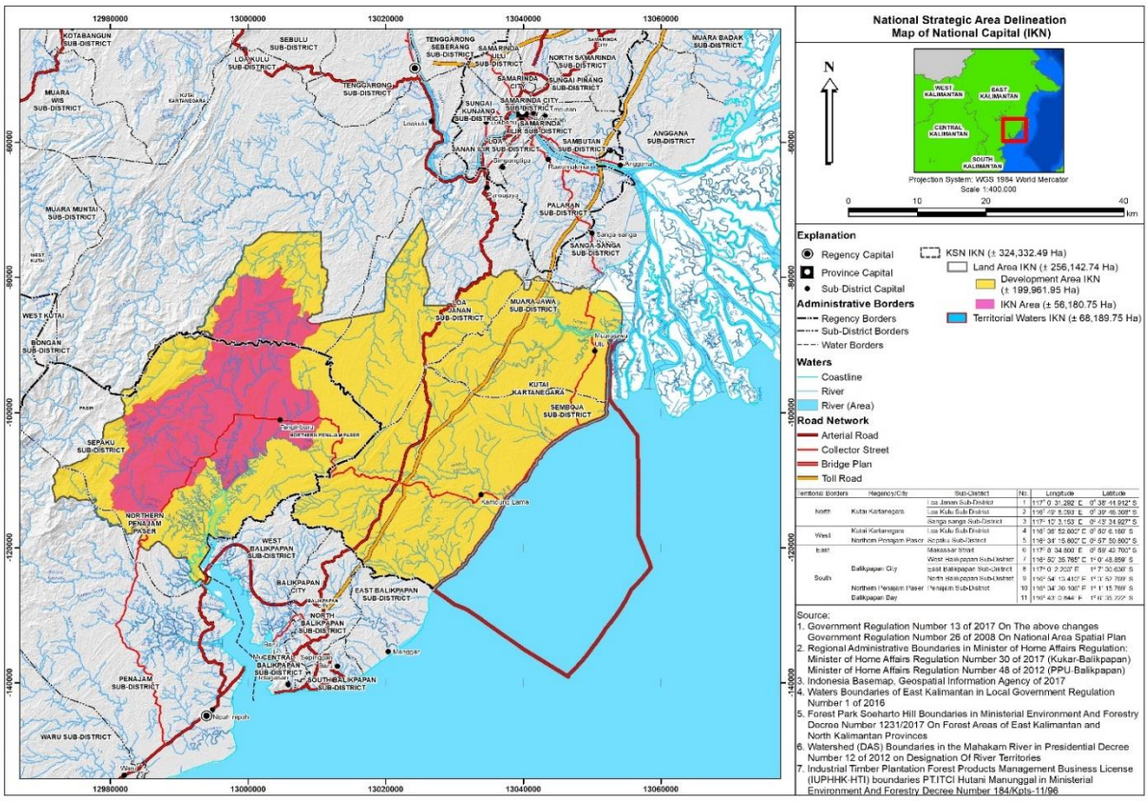
The goals of preparing the Master Plan are to provide a guideline for the preparation, development, relocation, and operation of IKN. The targets for the IKN Master Plan preparation are as a reference for::

a. Delineation of arrangement and use of spaces and Areas in the IKN;
b. Development of Area and economy;
c. Social development;
d. Land management;
e. Environmental protection and management along with disaster management;
f. Defense and security system development;
g. Basic and supporting facilities and infrastructure development;
h. Central government administration and governance improvement; and
i. Processes, development and relocation stages, as well as funding schemes which will be utilized..

C. SCOPE OF AREA

The IKN territory is located in the north of Balikpapan City and to the south of Samarinda City with a land area of 256,142 hectares and territorial waters area of approximately 68,189 hectares as shown in Figure 1-1.

Figure 1-1 IKN Area Map and Existing Regency Boundaries



Source: Geospatial Information Agency, 2020

Administratively, the present day IKN territory is located between two regencies, namely North Penajam Paser Regency (Penajam and Sepaku Sub-district) and Kutai Kartanegara Regency (Loa Kule Sub-District, Loa Janan Sub-District, Muara Lawa Sub-District, and Samboja Sub-District) and is bordered by:

a. Northern Part: Loa Kulu Sub-District, Loa Janan Sub-District, and Sanga-Sanga Sub-District, Kutai Kartanegara Regency;
b. Southern Part: Penajam Sub-District, North Penajam Paser Regency, Balikpapan Bay, West Balikpapan Sub-District, North Balikpapan Sub-District, and East Balikpapan Sub-District of Balikpapan City;
c. Eastern Part: Makassar Strait; And
d. Western Part: Loa Kulu Sub-District of Kutai Kartanegara Regency and Sepaku Sub-District of North Penajam Paser Regency.

IKN planning is divided into three planning territories, namely as follows:
a. IKN Development Area (KPIKN) with an area of approximately 199,962 hectares;

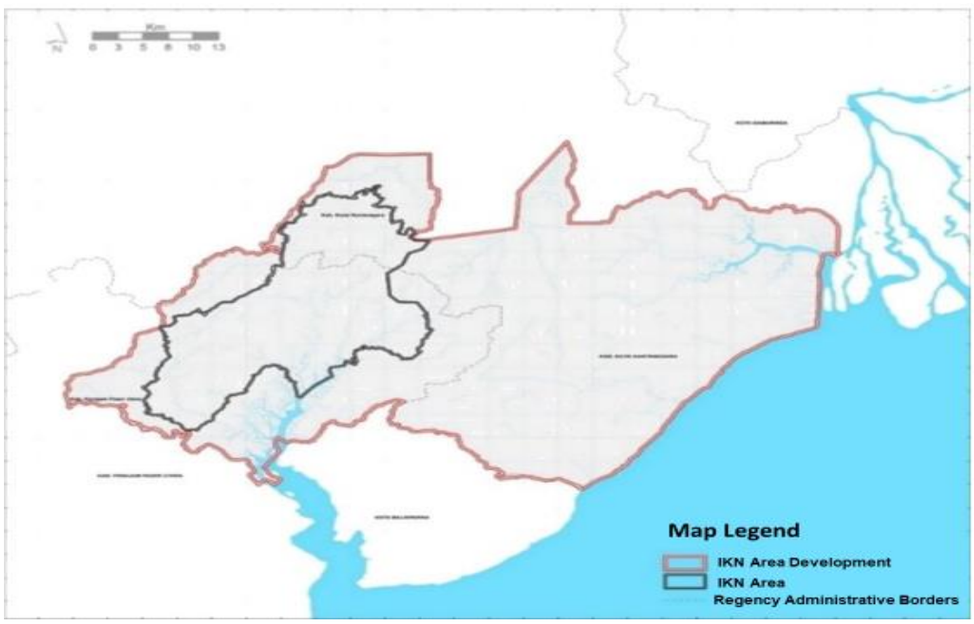
b. IKN Area (KIKN) with an area of approximately 56,180 hectares; and
c. The Governmental Core Area (KIPP), which is part of the KIKN, with an area of approximately 6,671 hectares.

C. 1 Territorial Coverage

C. 1. 1 IKN Territory

The IKN territory will be a catalyst for Kalimantan by utilizing the advantages of Balikpapan City and Samarinda City. The IKN territory encompasses approximately 256,142 hectares, consisting of 51 administrative areas at the rural/urban villageslevels, the majority of which are within the IKN territory with the following details of 15 rural/urban villages in Sepaku Sub-District, 21 rural/urban villages in Samboja Sub-District, 5 rural/urban villages in Loa Janan Sub-District, 2 rural/urban villages in Loa Kulu Sub-District, 7 rural/urban villages in Muara Jawa Sub-District, and 1 rural/urban village in Penajam Sub-District.

Figure 1-2 Map of IKN Territorial Coverage



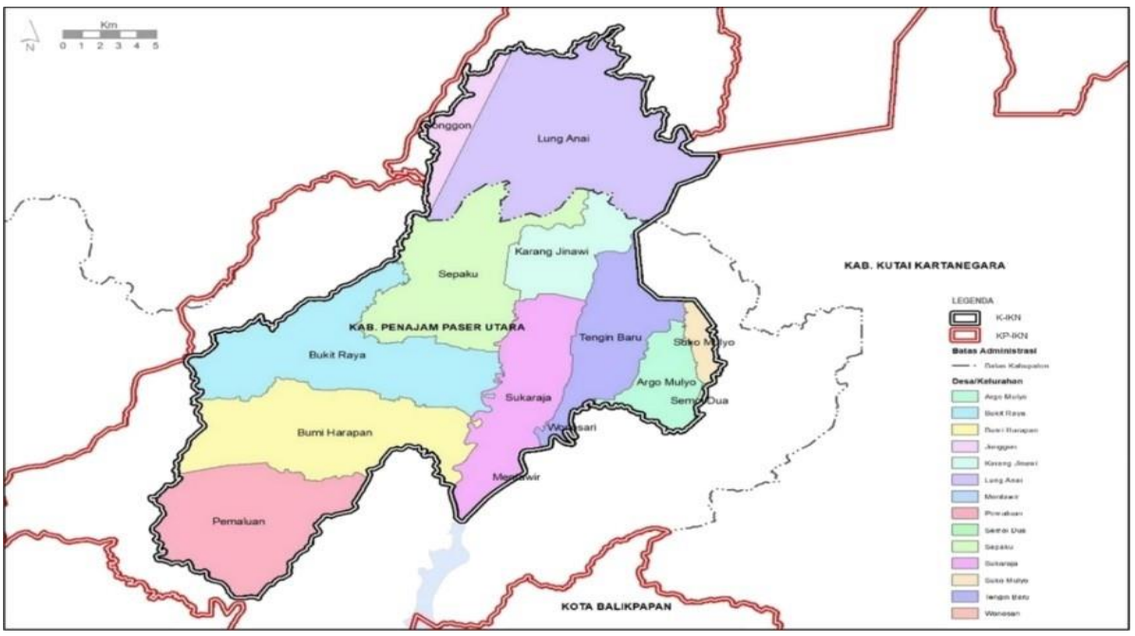
Source: Ministry of National Development Planning/National Development Planning Agency, 2020

C.1.2 IKN Area (KIKN)

The KIKN territory with an area of approximately 56,180 hectares is located in two regencies, namely North Penajam Paser Regency and Kutai Kartanegara Regency. The IKN area intersects with two sub-districts), namely Sepaku Sub-District and Loa Kulu Sub-District. There are six existing villages whose areas are partially or completely delineated in the KIKN, namely Sukaraja, Tengin Baru, Karang Jinawi, Argomulyo, Sukomulyo, and Semoi Dua.

The village areas in the two sub-districts that intersect with the IKN Area can be seen in Figure 1-3 below.

Figure 1-3 Map of the Existing Administrative Boundaries of IKN Territory



Source: Ministry of National Development Planning/National Development Planning Agency, 2020

C.1.3 Governmental Core Area (KIPP)

The Governmental Core Area (KIPP) with an area of approximately 6,671 hectares is currently located in Sepaku Sub-District, North Penajam Paser Regency, East Kalimantan Province. The KIPP area is located on the southern side of KIKN. The villages whose areas intersect within the KIPP area are the villages that are located in the Sepaku Sub-District, namely Pemaluan Village, Bumi Harapan Village, and Bukit Raya Village.

C.2 Scope of Substance

The IKN Master Plan becomes a reference for the spatial planning and sectoral planning in order to become a comprehensive and integrated planning unit.

The IKN Master Plan as an annex to Law on National Capital consists of four chapters, namely:

a. Chapter 1 Introduction

   This chapter consists of the background, goals and objectives of the preparation ofthe IKN Master Planand the and Scope of territory and substance.

b. Chapter 2 Vision, Goals, and Basic Principles of the National Capital

   This chapter consists of an explanation of the foundation for IKN development, the vision and objectives of IKN development, and the key performance indicators (KPI) principles of IKN.

c. Chapter 3 Basic Principles for the Development of the National Capital

This chapter discusses the basic principles of the various aspects or sectors of development of the National Capital which include the sectors of regional development, economy, social and human resources (HR), land, environment, infrastructure, transfer of state civil apparatuses (ASN), foreign missions/representations of international organizations, and defense and security.

d. Chapter 4 Development Staging Plan and Funding Schemes for the National Capital

This chapter contains an explanation of the five stages of IKN development (Stage 1, 2022-2024; Stage 2, 2025-2029; Stage 3, 2030-2034; Stage 4, 2035-2039; and Stage 5, 2040-2045), as well as funding schemes for IKN.

CHAPTER II
VISION, GOALS AND FUNDAMENTAL PRINCIPLES OF THE NATIONAL CAPITAL

A. VISION AND GOALS

A.1. IKN Development Foundation

The IKN development vision is established on the following great framework:

a. **National Identity:** An activity hub that manifests the nation's identity, social character, unity, and eminence of a nation which also reflects the uniqueness of Indonesia.
b. **Smart, Green, Beautiful, and Sustainable**: A city that manages resources efficiently and provides effective services through efficient use of water and energy resources, sustainable waste management, integrated transportation modes, a healthy environment, and synergized natural and built by environment. The planning of IKN is based on the concept of forest city, to ensure the environmental resilience dedicating at least 50 percent of its land for green areas. The IKN plan will be supported by a reliable Master Plan concept that has minimal risk to the existing natural ecology, built environment, and social system.
c. **Modern with International Standards**: Progressive, innovative, and competitive in various aspects, such as technology, architecture, urban planning, and social issues. In addition, IKN will also be equipped with world class infrastructure and be connected to various other international urban centers.
d. **Effective and Efficient Governance**: Relocation of central government institutions and agencies, decentralization of the State Civil Apparatuses (ASN), and increasing the capacity and potential of ASN through interconnected areas.
e. **As a Driving Force of Economic Equality for Eastern Indonesia**: One of the main goals is to develop clean and high-tech industries as well as encourage a globally competitive economic sector.

The benefits of the National Capital relocation are as follows:

a. providing more equitable access for the entire territory of the Unitary State of the Republic of Indonesia (NKRI);
b. encouraging the development of the eastern part of Indonesia for regional equitability which will:
   1) increase real national GDP (Gross Domestic Product);
   2) increase job opportunities; and
   3) reduce poverty and income group disparities.
c. changing the orientation of development from Java-centric to Indonesia-centric;
d. availability of a large area of land with the green area that is more dominant than the built area; and
e. reducing the burden of Java Island and Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek) Urban Area.

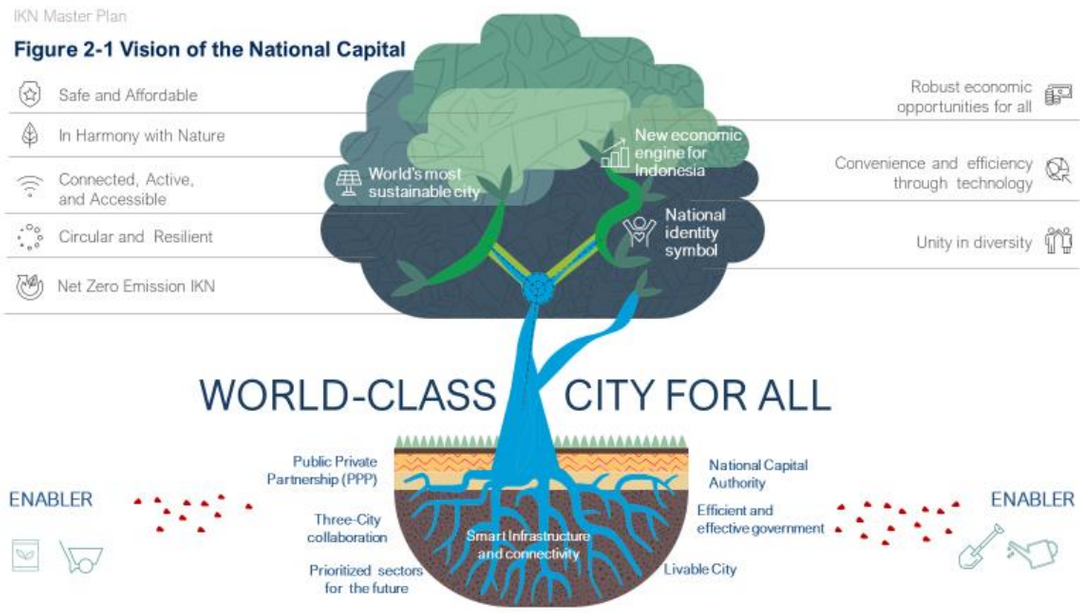
A.2 Vision and Goals of IKN Development

IKN will become the economic engine for Kalimantan and trigger the strengthening of domestic value chains throughout Eastern Indonesia. The development of IKN establishes Indonesia in a more strategic position in world trade routes, investment flows, and technological innovation. Furthermore, IKN will also become a model for the development of a green and sustainable city driven by the application of the latest technology. The vision "A World City for all" not only describes the community that will reside in IKN in the future, but also describes the environmental condition that will be restored and maintained.

The vision is translated into three main objectives, namely:

a. a symbol of national identity: a city that embodies the identity, social character, unity, and eminence of a nation;
b. a sustainable city in the world: a city that manages resources efficiently and provides services effectively with efficient use of water and energy resources, waste management, integrated transportation modes, livable and healthy environment, a synergy of the natural environment and the built environment; and
c. driving force of Indonesia's future economy : progressive, innovative, and competitive in terms of technology, architecture, urban planning, and social. A super hub economic strategy approach to ensure the most productive synergies between workforce, infrastructure, resources and networks and to maximize opportunities for all.

Figure 2-1 Vision of the National Capital



Source: Ministry of National Development Planning/National Development Planning Agency, 2019

B. IKN KEY PERFORMANCE INDICATOR (KPI) PRINCIPLES

IKN requires a long-term direction that serves as a guideline for its development and management as it develops. To meet the requirement, Key Performance Indicators for IKN, referred to as KPIs, are an effective way for the city to manage challenges in directing the decision-making from time to time. KPI is a results-focused assessment approach, ensuring that the framework has the flexibility and adaptability and does not lock in solution-focused innovation. In addition, the KPI framework also enables decentralized decision-making and provides coordination between institutions (public and private sectors) to realize the vision.

B.1 IKN KPI Framework

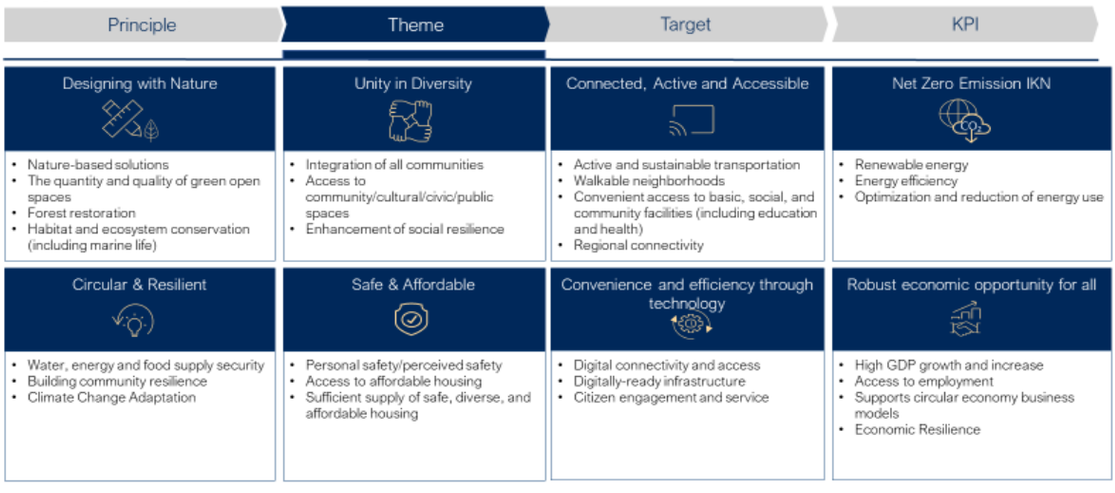
KPI is used in the planning, development, implementation, and management stages. KPS is a tool of assessment that:

a. enhances the vision through the targets of IKN KPI;
b. indicates the effectiveness of the IKN Master Plan Design;
c. provides an assessment framework to consider an alternative design proposed by other parties in the future.
d. highlights design elements underlining the element design that have the potential to hinder the achievement of the IKN's KPIs; and
e. identifies target areas that may need mitigation strategies.

B.2 IKN KPI PRINCIPLES

The eight KPI principles are built on top-down and bottom-up techniques. In general, the top- down includes analysis on a global and national scale, whereas the bottom-up involves analysis at the local government level. Such principles are developed through these multidimensional processes, and every principle has statements of the outcome. These principles are translated into themes that contain measurable outcomes of each principle.

Figure 2-2 Principle-Based Themes of IKN KPI



Source: Ministry of National Development Planning/National Development Planning Agency, 2020

The themes developed on the basis of the IKN KPI principles become the basis for setting the targets for each theme. There are 24 KPI targets -- with three derived targets per principle developed following the developed themes. Targets are set by combining the bottom-up and bottom-down perspectives and the government commitment.

Figure 2-3 Summary of KPI Targets

Source: Ministry of National Development Planning/National Development Planning Agency, 2020

B.3 KPI IKN TARGETS

Considering the time frame and the stages which were required to develop a new city, planning is conducted in different detail for the different area scales. to consider the time frame and the stages required to develop a new city. The development of KIPP is directed has a to the more detailed development plan than in comparation with the entire IKN territory in approximately of 256,142 hectares which include including KIKN and KPIKN. To ensure the achievement of the IKN vision, KPI targets are implemented explained in different area scales, including KPIKN, IKKN, and KIPP, to ensure the realization of the IKN vision.

Table 2-1 IKN Key Performance Indicators Targets by Area

Principle	Description of KPIs		KPIKN 2045	KIKN 2045	KIPP 2045	Reasons for Targeting
1. In harmony with Nature	1.1	**>75%** of 256.000 hectare area for green space (65% protected area and 10% food production)	75%	50%	50%	Green space targets (forests, ecology and animals, roof gardens, subsistence agriculture, ecotourism, and botanical gardens) of 75% and 50% in KPIKN, KIKN in 2045 with rehabilitation and reforestation of 50% of oil palm land and mines whose concessions expire
	1.2	**100%**	Strategic	100%	100%	*a capital expenditure (capex)* analysis for financial feasibility
	1.3	**100%** green space replacement for every institutional, commercial, and residential high-rise building (buildings >4 floors)	Strategic	100%	100%	Singapore has a mandate and achieves 100% green space turnover to realize the vision of *city in nature*
2. Bhinneka Tunggal Ika	2.1	**100%** integration of the entire population - existing and new	100%	100%	100%	In accordance with global best practices on social safeguards policies, such as Target No.11 sustainable development goals (TPB)

	2.2	**100%** of residents can access social/community services within 10 minutes	Strategic	100%	100%		The City of Paris targets a 15-minute environment with the integration of land use and mobility for physical feasibility, and the results of *a capital expenditure (capex)* analysis for financial feasibility
	2.3	**100%** of public spaces are designed using the principles of universal access, local wisdom, and designs that are gender responsive and inclusive	Strategic	100%	100%		Universal access is considered a human right by leading global organizations
3. Connected, active and accessible	3.1	**80%** of trips by public transport or active mobility	Strategic	100%	80%		Better target than Jakarta (29%) and Singapore (68%); comparable to Tokyo (88%)
	3.2	**10 minutes** to important facilities and public transport links	Strategic	100%	100%		*a capital expenditure (capex)* analysis for financial feasibility
	3.3	**< 50 minutes** Connection transit express from KIPP to Strategic airport in 2030	N/A	< 50 minutes	< 50 minutes		Comparable to Singapore in the 40-minute public transportation journey from *the Central Business District* (CBD) area to the airport

4. IKN with *net zero emissions*	4.1	The installation of renewable energy capacity will meet **100%** of IKN's energy needs	100%	100%	100%		Renewable energy capacity installation will meet 100% of IKN's energy needs; Recent technical analysis shows its technical feasibility and commerciality
	4.2	**60%** energy savings for energy conservation in buildings	Strategic	70%	70%		In accordance with government directives through PUPR Ministerial Regulation No. 2 of 2015
	4.3	***Net zero emission*** for IKN (when operating) in 2045 in an area of 256K Ha	*Net-Zero*	Strategic	Strategic		In line with Indonesia's commitment to Target No. 13 SDGs and the Paris Agreement
5. Circular and resilient	5.1	**>10%** of the 256.000 Hectare land is available for food production	>10%	Strategic	Strategic		The food strategy identifies a potential area of 11,3% for East Kalimantan
	5.2	**60%** recycled all embossing	Strategic	60%	60%		The aspiration to be the best in the world is better than the best countries, Germany and Austria by recycling up to 56% of waste
	5.3	**100%** of wastewater will be treated through a treatment system	Strategic	100%	100%		Aspiration to be the best in the world and better than the best city, Aqaba, Jordan (90% waste water recycling)

		by 2035					
6.Safe and Affordable	6.1	***Top-10 EIU Liveable Cities*** in the world in 2045	Strategic	Top 10	Strategic		Level with the 10 best cities in 2019, for example Vienna, Melbourne, Osaka
	6.2	Existing and planned settlements in 256K areas **have access to critical infrastructure** in 2045	0	0	0		The Government of Indonesia has made significant policy and financial commitments to ensure good quality housing for all citizens
	6.3	**Decent, safe and affordable housing that meets a balanced occupancy ratio of 1:2:3** for luxury, medium and simple types	100%	100%	100%		Provision of housing that is integrated with proper infrastructure, facilities and utilities and is supported by an efficient housing finance system
7.Convenience and efficiency through technology	7.1	Realizing a **very high ranking** in *E-Government Development Index* (EGDI) by United Nations (UN)	-	Very high	Very high		Indonesia is currently in the "*High* – H3" category and can try to get into the best category
	7.2	**100%** digital connectivity and information and communication	Strategic	100%	100%		To be comparable to top cities like Singapore, Hong Kong, South Korea

		technology (ICT) for all residents and businesses					
	7.3	**>75%** Business Satisfaction with a Digital Services rating	Strategic	Strategic	Strategic		In 2019, Singapore successfully achieved a business satisfaction rate of around 69% for its digital services rating. During its development period, IKN can provide better services for business people
8. Economic opportunity for all	8.1	**0%** poverty in the IKN population in 2035	0%	Strategic	Strategic		In 2018, Malaysia is a country with a poverty rate of 0,4%
	8.2	**Gross regional domestic income (GRDP) per capita** is equivalent to a high-income economy	Strategic	Strategic	Strategic		East Kalimantan's GRDP per capita is the second largest in Indonesia, which is already on par with high-income economies, and will continue to be increased
	8.3	**Gini ratio** in Indonesia in 2045	The lowest in Indonesia	Strategic	Strategic		IKN can be better than Indonesian cities with the lowest Gini Ratio

Source: Ministry of National Development Planning/National Development Planning Agency, 2020

Information:

Target Setting Approach

Top-down reference

Achievable bottom-up estimation

Government Commitment

Strategic Adjust to conditions at that time of year

CHAPTER III
BASIC FUNDAMENTAL PRINCIPLES FOR THE DEVELOPMENT OF THE NATIONAL CAPITAL

A. THE FUNDAMENTAL PRINCIPLES OF REGIONAL DEVELOPMENT

The development of IKN follows The Fundamental Principle of the regional development of IKN based on the eight principles of IKN development that prioritize nature, technology, and environmental sustainability. Sustainability concepts are used in the IKN planning to balance the natural ecology, the built environment, and the social system in a harmonious way. In addition to that, the development of IKN also considers the possible adverse effects of urbanization and extreme weather that can increase the risk of disasters, such as floods and shortages of raw water. Therefore, the development of IKN will combine three urban development concepts, namely forest city, sponge city, and smart city.

The development of IKN with its three urban development concepts cannot be separated from and will not work without the support of the nearby partner cities. Consequently, the application of IKN as a forest city, sponge city, and smart city must encourage a harmonious cooperation with the surrounding partner cities.

A.1 Forest City

IKN is located in and surrounded by forest areas that have a rich biodiversity. Therefore, its planning and development must be focused on the efforts to maintain and restore the forest. The application of the forest city concept does not mean reforestation of the built environment with the provision of open green spaces (RTH). This definition remains consistent with the planned features, such as domination of forest vegetation and extensive tree cover because they are relevant to the condition and needs of the IKN development. Therefore, a more appropriate definition of a forest city that aligned with the development plan of new cities in the IKN Region are as follows:

“A forest city with an integrated landscape approach dominated by forest structured landscapes or open green spaces (RTH) that function as ecosystem services, such as forest, and aim at creating a life that coexist with nature.”

The city will be designed in harmony with the natural condition to create a life that coexists with nature with the aim of supporting sustainable development, in particular maximizing carbon sequestration and biodiversity conservation, as well as supporting environmental management to improve the quality of the environment.

A forest city is principally a city that can maintain the ecological function of the forest and development of other forest city concepts such as carbon sequestration, biodiversity conservation, and environmental management to improve the quality of the environment. The Ministry of Environment and Forestry (KLHK) has formulated several forest city principles to be used in the planning of IKN based on the Strategic Environmental Studies Rapid Assessment it conducted in 2019. These principles are:

a. based on watershed management;
b. having a network of structured green spaces;
c. utilizing around 50 percent of the area for development;
d. highly efficient water consumption;
e. low burden of fulfilling the population's consumption;
f. having good air quality and cool average temperature;
g. having good quality surface water;
h. animal habitat protection; and
i. having good land cover quality and a revitalized “Tropical Rain Forest” landscape.

Several forest city principles for IKN area of approximately 56,180 hectares are as follows:

Principle 1. Conservation of Natural Resources and Animal Habitats

Urban development should minimize damage to natural ecosystems that exist or maintain the natural ecosystem (including the natural habitats of animals or vegetation) and ensuring forest sustainability by protecting or restoring the forest ecosystem to improve the environmental quality. Considering the majority of IKN’s land is located in a forest area, it is necessary to create a city that is built within the forest to assure that IKN can still support Kalimantan's role as the lungs of the world.

Principle 2. Connected with Nature

Essentially, this principle attempts to create urban development that accommodates human interaction or connection with nature (connected with nature) and forests in and around cities. This principle can be implemented by providing green open spaces RTH and green corridors in urban areas. Connected with nature can also be realized by creating dominant green vegetation landscapes in between the buildings, i.e. integrated green zones for living and recreational purposes.

Principle 3. Low-Carbon Development

This principle is meant to support the national policy regarding green gas emission reduction and maximize the role of green open spaces or forests in carbon absorption along with improving air quality that must be supported through the use of new and renewable energy.

Principle 4. Holistic, Integrated and Sustainable Water Resources Management

Water resources management follows the holistic, integrated, and sustainable principle. Water resources management must adhere to two fundamental premises. First, watersheds and water sources need to be maintained and conserved to preserve water quantity and quality. Second, the allocation of water resources must consider the environmental conservation needs, especially the preservation of vegetation, and the social and economic needs in relation to water availability in a watershed unit.

Principle 5. Anti-Sprawl Development

The IKN area is an area that has a sensitive ecosystem, thus control is required in its development. The development of compact settlement can reduce dependence on private vehicles and can provide protection to IKN partner areas, green areas, and water catchments. It can also prevent the development of settlements in disaster-prone zones and provide better access to the city's facilities and services. The creation of a green belt around the city is aimed at limiting the expansion of the city, especially into the center of biodiversity (biodiversity hot spot), and to maintain the supporting capacity and the environmental quality.

Principle 6. Community Engagement

Forests and the environment provide considerable benefits to the community. The sustainability of forests and the environment is very susceptible to human and community activities. The wisdom of the local wisdom community, which can also represent the nation's identity, is adopted in the utilization of forest resources. Additionally, the community can take part in the creation of the forest city by becoming citizen foresters who are involved in the planting, management, and monitoring of the trees in the city.

A.2 Sponge City

The "sponge city" concept and its elements are comprehensively implemented in IKN with a particular view towards restoring natural hydrological cycles that have been disrupted by development. This concept's implementation offers the benefit of water harvesting for both improved water supply and flood mitigation, in addition to other benefits such as water purification and ecological conservation, resource system efficiency, and public recreation opportunities.

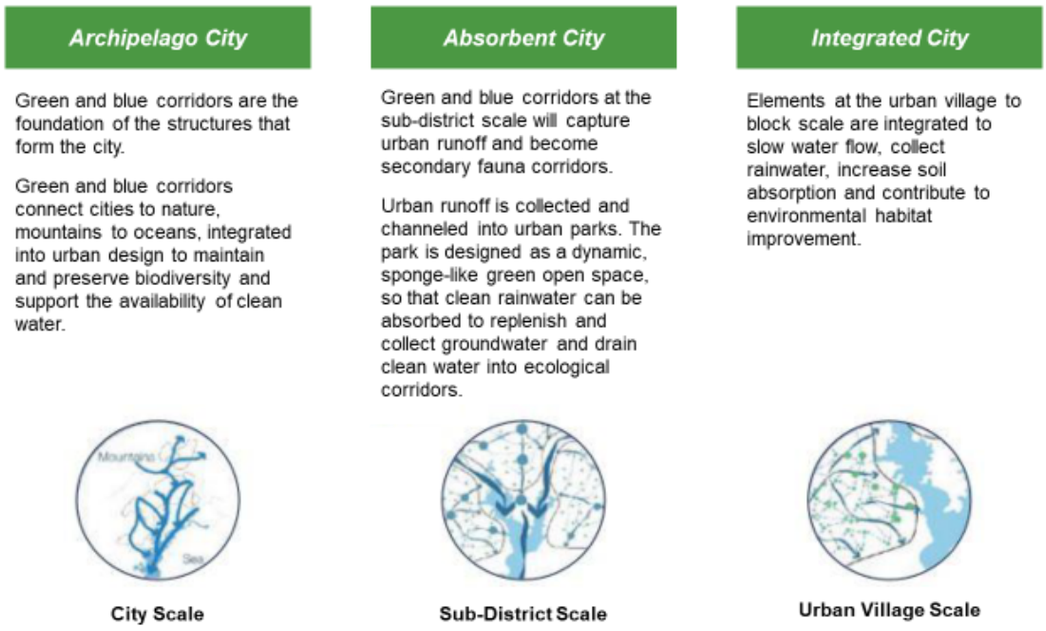
Sponge city refers to a city's ability to retain rainwater (sponge-like) instead of letting it drain into artificial channels and to enhance rainwater infiltration into the soil in the interest of reducing flood hazards and improving groundwater quantity and quality through soil percolation and underground storage (aquifers). In order to support this, IKN is planned with:

a. green and blue open spaces that are widely spread, evenly distributed, and mutually connected within a coherent hydrological scheme to retain and store water as well as improving urban ecosystem quality and biodiversity so as to create comfortable cultural and recreational spaces;
b. small-scale urban facility designs such as green rooftops on various buildings and structures to retain rainwater prior to being absorbed into the soil or running off into drainages and streams; and
c. large-scale urban facility designs such as porous roads and sidewalks, bioswale, and bioretention systems to retain and rapidly absorb rainwater in the interest of facilitating the safe and uninterrupted movement of people and vehicles.

The three goals of the IKN as a sponge city are to be an archipelago city, an absorbent city, and an integrated city. These goals are explained in detail in Figure 3-1 below:

IKN Master Plan

Figure 3-1 Objectives of *Sponge City* in IKN Area



Source: Ministry of National Development Planning/National Development Planning Agency, 2020

The principles and examples of the sponge city concept implementationwithin the IKN Area are:

Principle 1. Reducing Surface Runoff

The IKN's development concept ensures that there will be no additional surface runoff as a result of increases in the amount of built-up areas such as the construction of new building, roads, sidewalks, and other land-use changes. Natural environments are inherently more capable of retaining and percolating rainwater into the soil. The development of the IKN area guarantees minimal change as possible to runoff quantity and at the same time attempts to increase water retention once IKN has been fully constructed. The approach taken to reduce surface runoff is to retain water starting from the smallest scale (individual houses and buildings) and prevent rainwater from entering the drainage system directly. This will be accomplished through rainwater harvesting at the scale of individual houses, building, and neighborhoods for reuse or ground percolation, such as with green rooftops, permeable rainwater retention tanks, and other water-sensitive features of urban design.

Principle 2. Maximizing Rainwater Percolation

The IKN Area is built to maximize rainwater percolation into the soil. This is accomplished through the establishment of widely spread and evenly distributed open green spaces that function as rain gardens. In addition, hardened surfaces can be modified to enhance water absorption. For instance, porous road and sidewalk surfaces allow the rapid infiltration of rainwater. Surface hardening should be kept to a minimum, including through the implementation of bioretention and bioswale technologies.

Principle 3. Rainwater Harvesting

Blue open spaces such as ditches, river channels, and retention features are designed to form a hydrological whole. The goal is to retain and store water while improving biodiversity and the urban ecosystem quality. This design begins from the neighborhood scale (small retention features) all the way up to the city scale (reservoirs).

A.3 Smart City

The "smart city" concept permeates the entire idea of IKN's development as a dynamic, inclusive, and future-proof new capital for Indonesia with strong community support. The smart city component within this National Capital (IKN) Master Plan identifies a number of digital and technological value-added elements that can provide enhanced benefits to IKN as a whole. IKN Master Plan focuses on three main areas to support its vision, namely:

a. The IKN Smart City Strategy
   The framework to comprehend which results are aimed to be achieved and how disruptive technologies can be implemented to achieve them. The smart city strategy consists of 3 principal elements:
   1) a vision and corresponding outcome aligns with IKN's overall strategic framework;
   2) smart regional strategy that encompasses the main digital opportunities available for IKN; and
   3) an extensive list of smart initiatives that provide multiple possibilities for actualized development opportunities.

b. Smart Initiatives that must be prioritized by IKN The following are the smart initiatives that must be prioritized in IKN:
   1) access and mobility;
   2) environment and climate;
   3) security and safety;
   4) public sector;
   5) urban systems; and
   6) habitability and dynamism

B. FUNDAMENTAL PRINCIPLES OF ECONOMIC DEVELOPMENT

A more inclusive and equitable economic development through the acceleration of development in the Eastern Regions of Indonesia, particularly with the establishment of the IKN as an economic superhub, is one of the main factors that will determine the success of the Indonesia 2045 Vision. IKN's superhub concept is designed to operate at three interrelated and integrated levels under the vision of Reimagined Indonesia: Locally Integrated, Globally Connected, Universally Inspired. The Locally Integrated vision emphasizes that IKN's role as an economic superhub which will transform the Indonesian economy into a more inclusive system through a Tri-City three-city strategy (IKN, Balikpapan, and Samarinda) and collaboration with other regencies/cities in East Kalimantan, more specifically by becoming the driving force of the East Kalimantan economy and a trigger for the reinforcement of domestic value chains in eastern Indonesia as well as and the the country as a whole. The Globally Connected Vision posits emphasizes that the IKN economic superhub will promote advanced and highly competitive economic activities that will then place Indonesia in a better strategic position vis-à-vis within global trade networks, investment flows, and technological innovations. The Universally Inspired vision holds that IKN will be built after using the best examples among from the world's leading smart, inclusive, and sustainable cities.

In manifesting the Tri-City robust three-city concept on firm foundations, IKN, Balikpapan, and Samarinda will form a mutually complementary triangle of economic development. IKN will form function as the nervous system in the Tri-City three-city strategy as the new center of government and a nexus of green innovation that promotes the growth of new innovation-driven sectors such as biosimilars and vaccines, plant-based proteins, nutraceuticals, and renewable energy. IKN will also provide a base for Smart City and digital services, 21st-century education concept, and urban tourism, businesses, and health. Samarinda will become the structural heart of the Tri-City three-city by transforming the mining, oil, and gas sector into a new, low-carbon, sustainable energy sector. Samarinda is also expected to attain benefit from the growth of tourism activities in the Eastern Kalimantan region. Balikpapan will be the muscle of the Tri-City' three-city economic development by taking advantage of its established logistical and delivery service hubs for import/export- oriented sectors and strengthening the economic superhub's position in inter- and intra-regional flows of commerce. Balikpapan will also contain a petrochemical cluster and promote the diversification of products from upstream oil and gas into a variety of downstream petrochemical derivatives.

IKN's economic superhub is also expected to offer provide massive economic benefits to the greater East Kalimantan Satellite Partner Regions in enhancing the role and will serve the role as the of the 'lung' to the Tri-City three-city system. As a partner of IKN, the greater East Kalimantan region is also expected to derive further benefits from the growth of ecotourism and exercise activities, especially in the vicinity of the abundant natural and

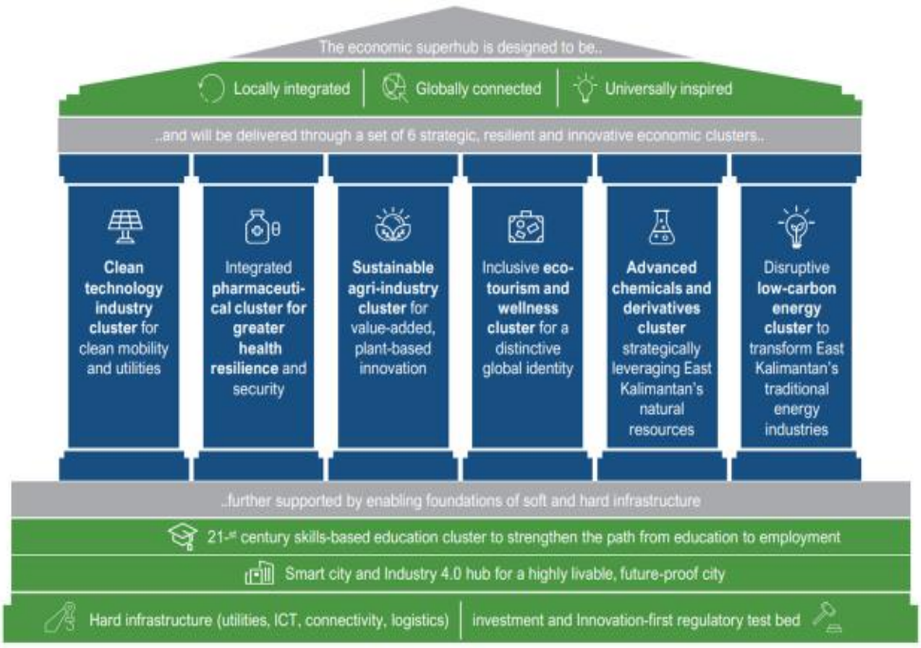
cultural assets in the north of Kalimantan; it will also promote the development of agricultural derivative industries in the processing of oil palm and other potential commodities.

IKN's economic superhub vision will be implemented through the development of 6 strategic, resilient, and innovative economic clusters supported by firm foundations in both hard and soft infrastructure. The development on the six clusters is based upon the enhancement of the competitiveness of existing economic sectors in East Kalimantan as well as the introduction of new advanced sectors oriented upon high and sustainable technology. These six prime-mover economic sectors are then derived into several subsectors that will facilitate the implementation of the economic superhub's vision. These six prime mover economic clusters are:

a. **A Clean Technology Industry Cluster** with the mission of creating products that promote environmentally friendly mobility and utilities. Its development will be focused upon on clean technology industries for more environmentally friendly mobility and utilitizationes, namely solar panel assembly (Solar PV) and two-wheeled electric vehicles (E2V).
b. **An Integrated Pharmaceutical Cluster** with the mission of establishing a cost-efficient pharmaceutical manufacturing center of the highest standards in its class for the sake of better healthcare security and resilience. Its development will be focused on the production of generic active pharmaceutical ingredients, biosimilars, and biologics in order to meet growing domestic demand and improve the nation's resilience in the face of health crises.
c. **A Sustainable Agricultural Industry Cluster** with the mission of establishing a production and innovation center for plant-based foods that will be sustainable and responsive towards future health and fitness trends. Its development will be focused upon plant-based proteins, herbal and nutrition products, and plant extract products.
d. **An Ecotourism Cluster** with the mission of developing a world-class ecotourism destination based on ecotourism assets and health tourism while retaining East Kalimantan's distinct global identity. Ecotourism development will also be supported by urban tourism; meetings, incentives, conferencing, and exhibitions (MICE) tourism; and health and fitness tourism.
e. **A Chemical and Chemical Derivative Products Cluster** with the mission of establishing a development center for chemicals and chemical derivative products to satisfy potential high-demand sectors and create new employment opportunities by utilizing the natural resources available in East Kalimantan. Its development will be focused upon oleochemical and petrochemical industries supported by a consistent supply of moderately- to highly-skilled workers.
f. **A Low-Carbon Energy Cluster** with the mission of transforming East Kalimantan's existing energy industries by developing low-carbon energy production as future energy sources, such as biofuels, synthetic fuels, and coal gasification.

These six prime mover clusters will also be supported by two enablers, namely a 21st Century Education Cluster to provide a skilled workforce tailored to the needs of the 6 economic clusters and the implementation of smart city and industry 4.0 (i4.0) principles to transform the territory into an advanced and habitable city to serve the future needs of the community and the business sector.

Figure 3-2 Realization of Economic Superhub Vision through Six Economic Clusters and Two Enabler Clusters



Source: Ministry of National Development Planning/National Development Planning Agency, 2020

The detailed cluster strategy has already been developed and will be implemented in stages starting from 2025. Within the 2025-2035 period, the economic cluster development will focus on the establishment of strong foundations for each of the economic clusters. The further development of the economic clusters will be directed towards expansion and the enhancement of their competitiveness and contribution towards sustainable economic growth.

A series of major projects will be carefully selected out of each economic cluster to accelerate the development of the economic superhub. The development of these prime projects will involve both domestic and foreign investments. The government can offer its support by enhancing the attractiveness of these projects to potential investors, especially with a focus on:

a. the provision of advanced education and training systems to provide a workforce with skills tailored to the needs of the prospective economic clusters;
b. the development of a digital technology ecosystem in the form of information technology infrastructure and personnel;
c. a regulatory sandbox or test bed with pro-investment, pro-innovation characteristics that enables the testing of new products, technologies, and business models; pro-trade to promote efficiency in the economic cluster's supply chain; and pro-environment; and

d. holistic and long-term infrastructure development to fulfill the common needs of the economic clusters and meet the specific requirements of particular economic clusters.

Both fiscal and non-fiscal incentives can be offered to attract investment and prime human resources, such as tax incentives, relocation support, habitable city infrastructure and facilities, access to affordable land and housing, ease in obtaining permits, easy procurement of goods and services, ease in conducting import and export activities, support in market creation for new products from the new economic clusters, and so on. A variety of private public partnership (PPP) schemes will be arranged to facilitate risk mitigation for the large capital investment outlays needed for some of the prime projects slated for development. These incentives are expected to able to promote KIKN as a competitive city and superhub economic center with a high degree of attractiveness to human resources, especially from the younger generations, who will hopefully migrate, settle, and work or open businesses in KIKN and strengthen the sustained development of the economic clusters in KIKN and the Province of East Kalimantan.

C. FUNDAMENTAL PRINCIPLES OF SOCIAL AND HUMAN RESOURCE DEVELOPMENT

C.1 Fundamental Principles of Social Development

The fundamental principles of social development in the construction of the IKN rest upon the vision of a world-class city for all as its core principle. In order to turn these principles into reality, the IKN's development concept seeks to translate the Indonesian national philosophy of Pancasila into physical designs. This philosophical foundation is closely related to the principles that underlie the IKN's Key Performance Indicators (KPI).

The fundamental principles of social development acknowledge the diversity of the communities, whether existing residents or migrants, that will interact with the IKN. Thus, the community, whether women or men, currently living and around the IKN's site will not be excluded from the urban planning and development process instead, they will be able to both benefit from the IKN's development and offer valuable contributions to the IKN, such as by sharing local wisdom to form IKN as a unique “place”. Meanwhile, migrants to the IKN will also be able to benefit from the social strategies and planning principles being developed, especially during the construction, development, and growth stages.

The principal goals and outputs inherent to the fundamental principles of social development are laid out in Figure 3-3 (ANNEX) below:

Figure 3-3 Key Objectives and Outputs of Social Strategy

calculated according to the level of the impacts they stand to suffer and stages in the development of IKN. In terms of the level of impacts, communities can experience direct impacts if the planned development sites impinge upon their residences or places where they obtain their livelihood. In addition, they may experience indirect impacts from construction activities, price movements in goods and services, or development activities conducted on socially, culturally, historically, or educationally significant sites.

Communities affected by construction and infrastructure plans in Stage 1 -- the first few years of the IKN's relocation -- have more urgent needs and require a coherent strategy of land procurement and resettlement. A thorough consideration of the IKN's impacts in subsequent stages also indicates potential shifts within the affected communities, whether in the form of changes in livelihood or physical migration to residential areas that may develop within the IKN area (KIKN). Meanwhile, communities within the KIKN that do not experience direct impacts will be able to participate in economic developments and efforts to improve their welfare. In addition, active community participation in a focused and sustained manner will play an important part in supporting the IKN's development plans and to ensure the sustainability of the local population.

The four community groups identified as being the most likely to experience impacts are:

a. Communities within the KIKN that will be directly affected by impacts in the First Stage of development activities;
b. Communities within the KIKN whose lands will not be directly affected by impacts in the First Stage of development;

c. Communities inside and outside the KPIKN; and
d. Communities outside the delineation of IKN area.

Each of these groups contains a significant degree of internal variation that deserves attention. As such, participatory activities should be undertaken on a sustained basis and in a manner tailored to serve the needs of an inclusive social strategy that will bring benefits to both local communities and the IKN.

The economic development plan laid out within the IKN Master Plan plays an important part in building social cohesion and an inclusive IKN. At this point, the economic development strategy has been conceived to mold existing social values, enhance community skills, and enable local communities to become an important player in the IKN's future economic development.

On the other hand, the diversity of the local residents' backgrounds (consisting of both indigenous and migrants) in the East Kalimantan Province presents distinct challenges to the IKN. The IKN needs to be able to identify which segments of local residents require enhancements to their skills and/or formal education in order to enable their active participation in the development of the IKN's economy. This economic development of the IKN will open numerous employment opportunities to all segments of the residents. Inclusive and equitable employment opportunities should make it possible to optimize the local residents' economic potential.

The clusters formed during the IKN's economic development can promote the creation of employment opportunities and the improvement of local residents' incomes. Out of these clusters, two are already closely enmeshed with the local residents as shown in high rates of local participation. The first is the ecotourism and wellness cluster. The employment opportunities likely to be created in the development of this cluster include:

a. tourism entrepreneurs and tourist guides alongside wildlife guides, forest rangers, and community and cultural ecotourism;
b. artisans, entrepreneurs, and workers in local souvenir shops, and handicraft workshop providers;
c. entrepreneurs and workers in wellness centers, local spas, beauty clinics, and traditional medicine;
d. entrepreneurs, managers, and workers in hospitality and culinary businesses;
e. entrepreneurs and workers in agro-ecotourism, agricultural cooperatives, and agricultural markets; and
f. entrepreneurs and workers in retail, food and beverages, and arts and entertainment.

The second cluster is the sustainable agri-industries, especially for plant extracts and herbal products. This cluster will be directed towards improving the added value in agricultural commodities produced by the local residents and opening new employment opportunities from the development of processed and derived agricultural commodities. The employment

opportunities likely to arise from the development of this cluster include the following for the case of plant extract industries:

a. farmers/growers of the plants to be extracted;
b. workers for the growing, harvesting, drying, and production processes;
c. collectors of wild natural produce;
d. entrepreneurs, managers, and workers in the manufacture of local traditional agricultural products;
e. large and small-scale merchants; and
f. entrepreneurs and workers in packaging and marketing.

Beyond the sectors that already exhibit local participation, capacity building and skill enhancement are persued to ensure inclusive and equitable employment opportunities. The IKN is also expected to be able to take advantage of possibilities to improve technical and vocational education and/or training programs with the goal of making them affordable, accessible, and inclusive to the community at large, especially for low-income, unemployed, older, special-needs, or illiterate segments of society.

The social socio-spatial strategy will provide guidelines for the effort to provide equitable access to public spaces and facilities. This strategy connects communities with each other and with the cultural heritage of existing communities, in addition to taking part in the formation of the IKN's identity alongside other communities that may come into being in emerge the future.

The implementation of this strategy requires strong integration between spatial planning, economic development, and communication activities for the IKN. Sustainable community participation, identification of key stakeholders, and community representation will be vital to the IKN's success and the shaping of the IKN's spatial plan. The social-spatial strategy provides a framework for detailed design with community involvement. This measure seeks to ensure community representation and the fulfillment of the community's existing and emerging needs. All of this will be a continuous process.

Social cohesion is also closely related to land procurement for the IKN and other activities pertinent to land acquisition. This land procurement must abide by all standards and regulations currently in force in Indonesia, which have been developed in accordance with rules, policies, or standards set by international organizations to facilitate community protection. It is also recommended that the revitalization and reorganization of local communal areas should consider the livelihoods and the historical and cultural heritages of existing communities.

C.2 Fundamental Principles of Human Resources Development

C.2.1 Health

Health is taken to mean not only physical health and freedom from diseases, but also in a holistic sense that covers mental, social, and spiritual health that allows every individual to live in a socially and economically productive manner. The World Health Organization (WHO) has declared health to be a fundamental human right so that everyone should have access to adequate healthcare regardless of their ethnicity, religion, political views, spiritual beliefs, or social and economic condition. In other words, good health and fitness allow people to remain active and productive, whether in the smallest neighborhoods or the community. A healthy population is an important element in the development of a healthy city that promotes the health of its residents. Conversely, a healthy city facilitates the improvement and maintenance of its residents' health.

Judging by existing data on health risks, the Kabupaten (regency) Kutai Kartanegara is vulnerable to infectious diseases spread by animal vectors such as malaria, dengue fever, filariasis, zika, and chikungunya. At the same time, North Penajam Paser Regency is one of the highest malaria-endemic areas in Indonesia, with and Annual Parasite Incidence (API) number of around 6.53 per 1.000 people in 2021. Other diseases commonly encountered in North Kabupaten Penajam Paser Regency include upper respiratory tract infections, typhoid, and dengue. Logging activities in forest areas tend to leave pools of stagnant water that provide good breeding sites for anopheles balabacensis mosquitoes, which carriers the malarial vector. Another challenge is the rising trend in the prevalence of non-infectious diseases (NIDs) such as stroke, heart diseases, cancer, and diabetes, all of which contribute to an increasing disease burden (in the form of deaths and disabilities). This high incidence of NIDs can largely be attributed to unhealthy lifestyles exacerbated by factors such as a lack of exercise and unhealthy consumption habits. A similar situation has also been observed in the East Kalimantan Province as a whole, as shown in the high proportion of the health burden caused by non-infectious diseases compared to that caused by infectious diseases.

This situational picture indicates that curative interventions will be suboptimal in reducing the disease burden, so the emphasis should be placed instead upon preventive efforts and the promotion of healthy living to mitigate the disease burden (for both infectious and non- infectious diseases) and disease-related healthcare costs. The fundamental principles for a healthy city are developed with reference to the definitions of health and healthcare from WHO and Law Number 36 of 2009 on Health. In addition, the healthy city development also refers to:

a. The WHO Healthy City Model
   Healthy cities are places that serve deliver for the people and the planet. They engage the whole of society, encouraging the participation of all communities in the pursuit of peace and prosperity. The WHO’s criteria

of a definition of healthy cities are defined into six categories, namely Peace, Planet, Place, People, Participation, and Prosperity. In addition to the WHO definition, the Ministry of Health also offers the definition of a healthy city or regency as a clean, comfortable, safe, and healthy municipality to live in.

b. The Cardiff Healthy City Strategy
The city of Cardiff developed a healthy city model according to the WHO European Network of Healthy Cities. This model posits that the healthy city should not only be manifested at the municipal scale, but as an integral part of similar efforts at the global scale. This model focuses on several key ideas such as caring and supportive environments, healthy living, and healthy urban design.

c. The Vancouver Healthy City Strategy
The strategy is guided by a vision of A Healthy City for All: a city that where together we are creating and continually improving the conditions that enable its residents all of us to enjoy the highest level of health and well-being possible. In the pursuit of this vision, the city of Vancouver puts an emphasis on the three principal aspects of a healthy city, namely healthy people, healthy communities, and healthy environment. All of these aspects of the healthy city can be attended to not only in the public health sector, but also as a general concept for the development of a healthy city in other sectors.

The development of the healthy city framework in the IKN needs to consider three aspects, namely 1) the individual, 2) the community, and 3) the environment.

Figure 3-4 The Healthy City Framework for the IKN

Source: Ministry of National Development Planning/National Development Planning Agency, 2021

C.2.2 Education

The fundamental principle of education in the KIKN (National Capital Territory) as a whole will be directed towards a 21st-century education concept that matches the KIKN's educational vision, which is to build the best educational ecosystem to fulfill the economic clusters' future needs for a high-quality workforce, to provide a positive model for the implementation of higher education, and to improve living standards. The general thrust of the plans for the KIKN's educational concepts and strategies rest upon the following concerns:

a. vocational intervention will be essential to fulfill the workforce needs of the new economic clusters since around 60% of the projected jobs by 2045 will be vocational in nature;
b. it is important to increase the availability of further tertiary education in science, technology, engineering, and mathematics (STEM) and management in order to support future growth and innovation in the economic clusters; and
c. high-quality K-12 education will be a main criterion in drawing both domestic and foreign talent to immigrate and is also a necessary prerequisite in the IKN.

The six prime mover clusters are expected to create employment opportunities for local communities that have upgraded (non-induced "uplift) on a large scale in the IKN and the East Kalimantan Province by 2045; these clusters are clean technology industry, integrated pharmaceuticals, sustainable agri-industry, ecotourism, advanced chemicals and derivatives, and low-carbon energy. Considering the current supply of human resources in the IKN and East Kalimantan as a whole, it will be necessary to design a best-in-class educational ecosystem in order to provide an adequate supply of reliable and resilient human talent in the future. The IKN needs to improve its educational sector as a whole in order to fulfil the needs of all its clusters (both existing and new). Some of the things that need to be focused on at every educational level within the IKN are:

a. At the vocational level, the IKN will focus on the improvement of the Vocational Secondary School curriculums and faculties that contain specializations with greater relevance to the demands of the new clusters, and on partnering up with reputable domestic and international vocational institutions to introduce more specialized higher education in such sectors as tourism and agribusiness.
b. At the higher education level, the IKN will focus on partnering up with reputable STEM universities in offering targeted education and on attracting world-class multi-faculty universities into the IKN. In addition, there are several strategies than can be implemented to develop existing institutes of higher education, such as:

    1) Existing institutions of higher education can expand their enrolment to fulfill the 6 prime mover economic clusters' needs for highly qualified human resources.

2) The expansion of existing institutions of higher educations' enrolment can be performed by either adding infrastructure to the existing institutions of higher education or offering academic programs outside the main campus (PSDKU).
3) The reinforcement of existing institutions of higher education's focus on programs in line with the principal regional potentials in Kalimantan and industry demands institutions of higher education as references based on centers of excellence.
4) The founding of Indonesian branches of foreign institutions of higher education (FIHE) may offer an opportunity for the development of institutional cooperation in building the institutional capacity of institutions of higher education. The quality of FIHE branches to be founded in Indonesia will provide benchmarks for domestic institutions of higher educations in improving their quality according to international standards.
5) The expansion of networks between institutions and between academic personnel in order to increase international exposure (in terms of opportunities for research, publication, and innovation).
6) FIHE academic programs need to be directed to focus on strategic fields of knowledge with a high potential to elevate Indonesia's mastery of science and technology as well as its competitive position.

All of these must be supported by a robust K-12 foundation in order to create a resilient future workforce completed with 21st-century skills.

C.2.3 Workforce

The development of the workforce sector is indicated by two main indicators, namely the creation of employment opportunities and the rate of open unemployment. The IKN's development is intended to become the main driving force and source of leverage in workforce development. These are the steps to be taken in this regard:

a. detailed description of labor/workforce requirements;
b. detailed list of types of training needed;
c. training investment needed;
d. collection of data on potential workers among local community who require relevant training; and
e. the utilization of labour coordination instruments among local/regional stakeholders.

In the initial stages of the IKN's development, the generation of new employment opportunities will depend entirely upon the construction sector. The need for funds and supporting resources to power the construction sector will promote investment in Kalimantan and surrounding regions, which in turn will promote economic growth. The projected creation of employment opportunities in the initial stages of the IKN's development will mostly take place in relevant sectors like construction (75 percent), government (20 percent), and supporting services (5 percent).

In the intermediate and long term, the relocation of the IKN will generate new economic growth and strengthen the economic might of Kalimantan Island and its surrounding regions. The economic sectors that will be developed within the IKN for their comparative and competitive advantages will enhance economic growth, promote the creation of employment opportunities, and reduce economic inequalities. The creation of new employment opportunities through the growth of the service sector and high-added-value economic sectors will reduce unemployment and mitigate economic disparities between income groups.

One of the indicators for the success of development efforts is inclusivity, in this case referring to the involvement of local communities as principal actors of development. Within the context of IKN development, local communities should not remain spectators in the process but rather play a major part in it. The strategy of involving local labor can be implemented through the mapping of the local workforce's characteristics, the mapping of affirmation quota for the local workforce, and the training of local workers in the form of both imparting new skills (skilling) and switching to alternative competences (reskilling). In order to improve the local communities' existing skills and/or assist them in acquiring new skills that will enable them to contribute towards the IKN's development, it will be very important to transform vocational training centers (BLK) around the IKN in the interest of enabling greater recruitment of skilled local labor.

D.FUNDAMENTAL PRINCIPLE OF LAND PROVISION AND MANAGEMENT

D.1 Fundamental Principles of Land Provision

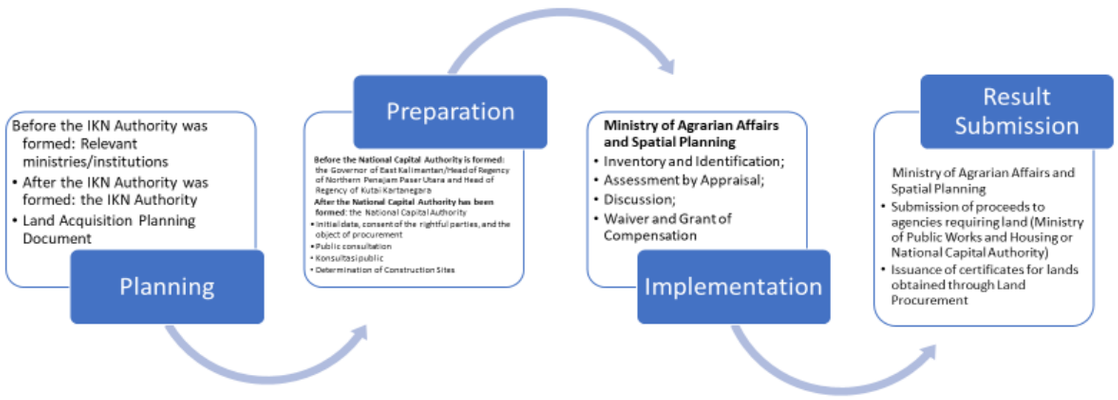
The provision of land for the construction of the IKN will make use of the mechanisms of land procurement and forest area reallocation. The forest areas to be reallocated will be industrial plantation forest (HTI) in forest areas that have been reassigned as convertible production forests (HPK) so that the land will be available for the IKN's construction, subject to the approval of the Ministry of Forestry and the Environment.

In the initial stage, the IKN's construction site will preferably be located in lands that are not subject to any ownership or possession titles; this is intended to minimize the need to relocate local residents and compensate them for their land. However, if the IKN's construction has to be undertaken on land already subject to an ownership or possession title, such land will have to go through a land procurement procedure. This will be carried out according to the mechanisms defined in the relevant legislation on land procurement for development in the public interest or direct land procurement.

Land procurement for development in the public interest within the context of the IKN's construction will refer to Law Number 2 of 2012 on Land Procurement for Development in the Public Interest, Law Number 11 of 2020 on Job Creation (partial changes in substance to Law Number 2 of 2012),

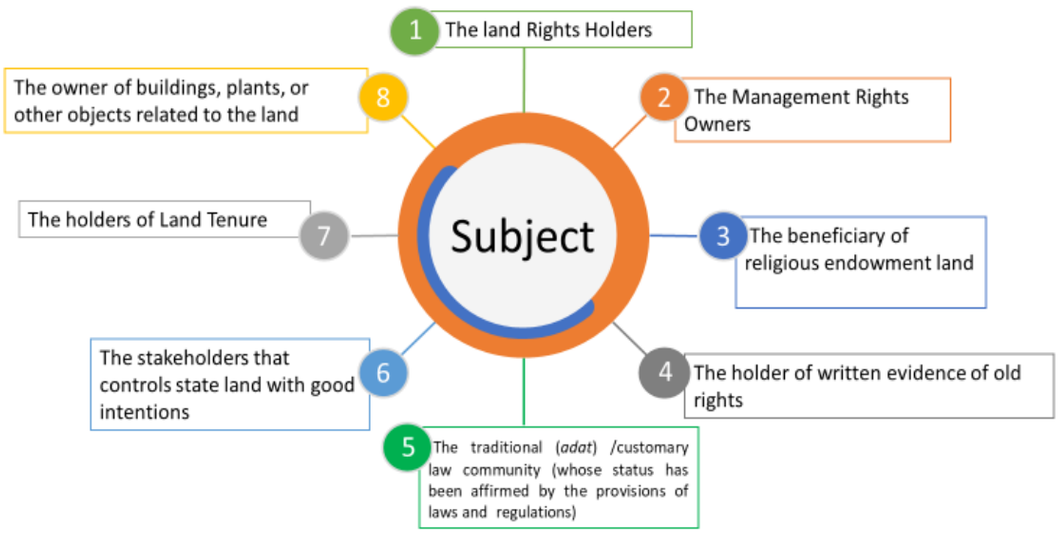
Government Regulation Number 19 of 2021 on Implementation Of Land Acquisition For Development In Public Interest, and Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 19 of 2021 on Instructions for the Implementation of Government Regulation Number 19 of 2021. Land procurement according to these regulations have taken into consideration the principles of due care, adequate and equitable compensation with consultation on the desired form of compensation as a consequence of land procurement, and measured arrangement of stages and deadlines. In case of any objections from the existing owners or possessors of the land, the compensation will be consigned to court so that the land procurement and construction activities will be able to carry on nevertheless. In the interest of prompt land procurement, the relevant ministry or agency tasked with performing construction on the IKN site(s) will act as the land-requiring agency prior to the establishment of the National Capital Authority. The stages of land procurement in the IKN area according to prevailing legislation can be described as follows:

Figure 3-5 Provisions of Legislation on Land Acquisition



Subjects/parties with the right to compensation are owners, possessors, users and utilizers ofland as explained in Figure 3-6 below:

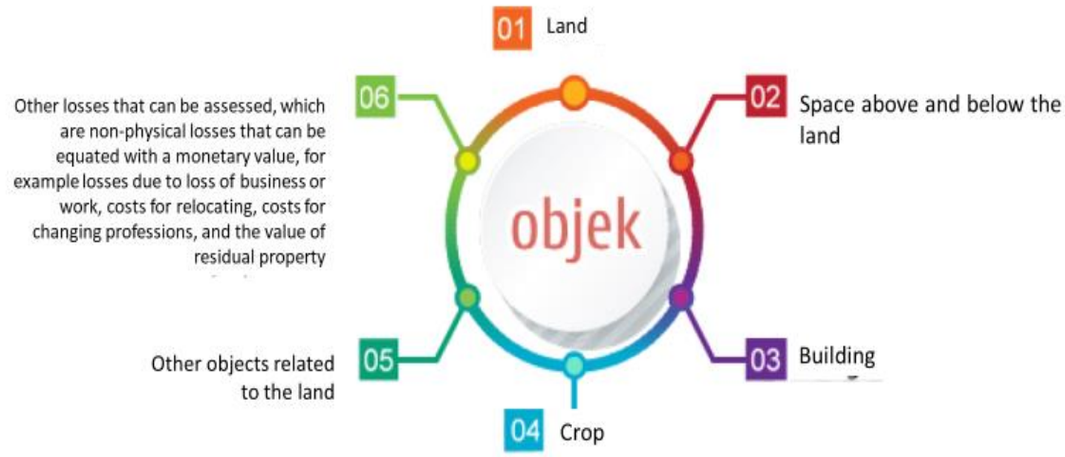
Figure 3-6 Subjects with the Right to Compensation



Source: Articles 18-28 in Government Regulation No. 19 Year 2021 on the Conduct of Land Procurement for Development in the Public Interest

The assessment of the land procurement object and the determination of appropriate compensation will be performed by an assessor for individual land parcels, covering the six categories for objects of land procurement as described in Figure 3-7 below:

Figure 3-7 Objects of Land Procurement



Source: Article 33 Law number 2 of 2012 concerning land acquisition for development in the public interest

In addition to land acquisition for construction in the public interest, land acquisition in the IKN region can also be performed through direct business-to-business land acquisition mechanisms such as purchases, grants, land swaps, voluntary transfer of title, or other agreed procedures.

D.2 Fundamental Principles of Agrarian Management

After land acquisition, the National Capital Authority has the authority to manage the IKN area and is granted rights to manage over the land in accordance with the legislation issued by the Ministry of Agrarian Affairs and the Spatial Planning/National Land Agency. This granting of rights to manage is carried out by taking into account the communal land rights and traditional adat communal land rights. Over and above the rights to manage can be granted land rights to individuals or other parties through agreements in accordance with the provisions of legislation.

Certain limitations are imposed upon the assignment of rights over land within the IKN. These limitations are implemented by requiring community members to obtain prior and express permission from the IKN if they would like to assign their land titles within the IKN area, and any the assignments/sales should be administered by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency. This limitation is not intended to erase legal rights to land ownership/possession. Within the IKN area, the National Capital Authority has the right of first refusal over any land to be sold.

E. FUNDAMENTAL PRINCIPLES OF ENVIRONMENTAL CONSERVATION AND MANAGEMENT

The plans for the IKN's development pay due attention to fundamental environmental principles, as shown in the integration between the population projection in the IKN Master Plan and the results of the analysis of the Environmental Carrying Capacity and Supporting Capacity (DDDTLH) in the Strategic Environmental Study (KLHS). All data, facts, analyses, and conceptual plans within the IKN master plan are verified against the DDDTLH within the KLHS document. The elements of the IKN Master Plan that must be verified are (1) spatial planning; (2) population projections; (3) biodiversity; (4) food security; (5) water infrastructure; (6) energy infrastructure; and (7) waste infrastructure.

The implementation of environmental principles in the IKN Master Plan leads to the regional integration of ecosystem corridors in the IKN area to guarantee the conservation of biodiversity within the IKN according to the strategy laid out in the KLHS Document of the IKN Master Plan. Therefore, environmental development will be focused on the maintenance of the ecosystem and biodiversity and the restoration of blue and green network systems.

Ecologically sensitive land, wildlife corridors, and forests essential to endangered or near- extinct species are protected as important components in the construction of the city's structure and the development of a unique identity for the IKN. Land parcels due for the development should be proposed in such a way as to minimize interference with such environmentally essential land and a series of KPI (Key Performance Indicator) have been defined to thoroughly support the forest city paradigm.

In order to achieve the KPI, whereby the IKN should have 65 percent of its area in the form of natural green spaces, it is possible to allocate land use for green spaces with potential use value to local communities, such as ecotourism and public spaces, in such a way that such spaces will be a source of economic and recreational value. This plays the same role as urban open green spaces in fulfilling the population's land consumption needs, but at the same type time can also provide natural green spaces with a significant conservation value, though still not as high as that for pure conservation areas. In order to make sure that there will not be additional development within the IKN as per the existing plans and to prevent an undesirably high rate of population growth, land use is based upon the Regional Spatial Plan and the Detailed Spatial Plan.

The effort to preserve nature, restore former mining sites, promote food security, and support an efficient infrastructure system is intended to provide direct benefits to IKN residents to guarantee a reasonable quality of life while respecting environmental boundaries. The utilization of local food production as recommended by the IKN food security strategy is in accordance with the IKN's strategies, including circular economy-based food production.

F. FUNDAMENTAL PRINCIPLES OF INFRASTRUCTURE DEVELOPMENT

F.1 Housing and Residential Development

Housing plays an important part in the well-being of urban residents, including in terms of economic growth. Housing can be a magnet for investment and have a significant multiplier effect upon the growth of urban economies. In positioning the housing sector as an epicenter of urban development, housing development in the IKN territory will not only involve constructing housing units but also the establishment of permanent residences within a holistic framework.

In implementing KPI 6 (safe and affordable), housing development needs to ensure that everyone has access to several options in the type of housing available to them under a balanced scheme (1:2:3) with an emphasis on suitability to their needs and affordability to a variety of income groups, responsiveness to a variety of residential arrangements, and reduction in operational costs by establishing compact residential areas with easy access to important infrastructure by 2045. This way, new housing and residential development should create a healthy housing distribution system as a preventive measure against the growth of slums.

This effort to implement the KPI 6 (safe and affordable) is in accord with parallel efforts to achieve KPI no. 2 (Bhinneka Tunggal Ika/Unity in Diversity) by integrating all residents together, whether local residents or migrants. As such, housing development should pay due attention to social dimensions.

Housing in the IKN territory is designed to avoid turning urban areas into exclusive places; instead, it should try to keep the city wide open to all segments of society (i.e. inclusive). With this idea of an inclusive city, access to housing will prioritize the human dimension and the fulfillment of human rights aspects in sustainable urban development: the right to adequate living, the right to basic services, the right to health, and the right to privacy. The existing housing concept that emphasizes single-occupancy homes, is not in line with the IKN territory's goal to become a "10-Minute City". Therefore, the need for housing and auxiliary facilities will be served by combining multiple services within a single building with due attention to comfort and livability standards. In other words, the goal is to provide housing in the form of high-rises or apartments without neglecting minimal standards for every need, such as the number and roles of members in every household.

Some of the assumptions that will form the basis for housing development in the IKN are:

a. Housing development is divided into two segments housing for state civil apparatuses (ASN) and housing for non-state civil apparatuses (i.e. the general public). The provision of housing for state civil apparatuses will

be facilitated by the government with the possibility of private-sector involvement. On the other hand, housing for the general public will be provided through market mechanisms by private-sector developers according to the business prospects in the local housing market and with the support of an efficient housing credit scheme. The development of a public housing system consisting of both rented properties and properties with limited ownership rights, whether primary or secondary, will be regulated and managed by estate managers under the National Capital Authority, both for ASN's housing and for non-ASN (the general public)'s housing.

b. The housing development concept will pay due attention to spatial function plans, mixed- function areas, and the heterogeneous demographics of the IKN in the interest of enabling a variety of functions and activities within the same built environment. These heterogeneous demographics call for an encouragement of the mingling of various population segments as defined by age, profession, income, ethnicity, and race.

c. Housing development will also implement the concept of residential transformation, such as by changing preconceived ideas to enable more effective and efficient use of residential land in the following ways:
   1) Living in vertical housing will create an ideal level of residential density. The challenge lies in the use of housing design to facilitate the maintenance of social relationships.
   2) Living in a compact urban area makes it easier to fulfill all kinds of needs with rapid and easy access.
   3) The application of smart technologies to urban living will help increase residents' comfort and at the same time implement the principles of sustainable living.

   These three aspects things will have positive implications upon on the availability of open spaces to the public and access to the broader environment, especially in by comparison to most other large cities today.

d. Housing for ASN will be comfort-oriented and serve the double function of both residences and workplaces, as shown in the table below:

Table 3-1 Specifications of Official Housing for Government Officials, ASN, and TNI and Polri

No.	**Residential Use**	Type of House	Width of Unit (m^2)
1	Minister/High-ranking Government Officials	Landed House	580
2	Government Officials	Landed House	490
3	Mid-level leadership/Echelon 1	Landed House	390
4	Junior leadership/Echelon 2	High-Rise Housing	290

5	Administrator/Echelon 3	High-Rise Housing	190
6	Functional Officials and other staff	High-Rise Housing	98

Source: Ministry of National Development Planning/National Development Planning Agency, 2021

e. The provision of official housing for ASN/TNI/Polri personnel will pay appropriate attention to the transition process for both the relevant personnel and their families, especially for over the first 5 years. The initial stages of housing construction for ASN/TNI/Polri personnel are expected to begin within the 2022-2024 timeframe. The size of each unit will preferably be a multiple of the size of high-rise housing units according to the base designs developed by the Ministry of Public Works and Housing to promote the more efficient use of space.

F.2 Solid Waste Infrastructure

The IKN has established a target for 100 percent of its solid waste to be handled and processed in a way that allows it to forego traditional waste management. Garbage will be sorted at the source and collected in various ways to be centrally processed. The IKN will adopt the conservative strategic projection of about 5 percent of all non-organic trash ending up in landfills. The facilitation of recycling as the main focus of the waste management system will reduce the amount of waste going to landfills, extending the useful service life of existing landfills while also reducing the need for land to establish new landfills with all the attendant environmental impacts. In addition, recycled material will also be available to be used in creating new products.

The waste processing center will be placed in a development area in such a way as to facilitate economic synergy, reduce, transportation and operational costs, and offer the ability to exert some control over environmental issues. Waste transfer stations will be located in each area to facilitate waste collection and removal. The development of waste management facilities will be planned to take place outside environmental no-go areas in order to prevent impacts upon sensitive flora and fauna and high conservation value areas. Given the high risk of pollution from waste management facilities, such facilities will require an Environmental Impact Assessment (AMDAL) prior to their construction in order to minimize their impacts upon the environment and the surrounding area. Additionally, there should be a more specific investigation to determine suitable sites for landfills.

F.3 Wastewater Processing Infrastructure

In order to achieve the KPI of 100 percent wastewater processing by 2035, wastewater will be centrally processed in a wastewater treatment plant (IPAL). The IPAL will serve the dual function of serving both the IKN and some

industrial and residential areas outside the IKN. The appropriate choice of wastewater treatment technology will depend on a number of physical and non-physical factors. The most appropriate technology is a technology that will provide a socially and environmentally acceptable level of service at the lowest cost.

A double system is recommended in serving the IKN's needs, with an emphasis on centralizing the treatment system in a nexus located to reduce the distance between the wastewater source and the processing site so as to minimize the length of pipelines needed between the two. This processing system will eventually involve the establishment of a gravity-fed pipeline network. The wastewater itself will be processed and recycled into the water system, though not for human consumption. Meanwhile, the wastewater pipelines will be designed as a separate system from storm/rainwater drains.

The wastewater management strategy with a target of achieving 60% recycling of generated wastewater by 2045 is designed to meet the IKN's vision as a city with a circular and resilient economy. Wastewater is generated by all wastewater users with sanitation systems connected to the urban wastewater network. The main wastewater treatment strategy refers to the relevant components of Local Domestic Wastewater Treatment Systems (SPALD-S) and Centralized Domestic Wastewater Treatment Systems (SPALD-T) according to current regulations.

F.4 Water Infrastructure

Urban water resource management seeks to provide safe and reliable access to drinking water, viable sanitation, protection of water sources against pollution, and reduction of flood risks in an integrated water management system. This strategy will implement the sponge city concept in order to integrate blue and green networks in the interest of providing comfort and health benefits for IKN residents.

An integrated water management strategy for the IKN will be necessary in fulfilling the development needs and potential issues encountered over the course of the IKN's construction. This integrated water management approach will combine the management of water use, rainwater runoff, and wastewater treatment by adopting an integrated approach between traditional water management systems. The goal is to improve resource efficiency as a whole through precise consideration of every use case, and the water system's contribution to the ecological system with due respect for natural limitations. The principal outcome of this integrated water management is the provision of safe and reliable access to drinking water, effective sanitation, and protection of water lines against pollution.

The three elements that must be utilized in the development of sustainable water management development in the IKN are (i) resilience, meaning that the water system should be able to adapt to future climate and growth while minimizing risks and vulnerabilities; (ii) efficiency, meaning that desired

service levels can be adequately met by balancing demand with capacity and appropriate investment; and (iii) quality, meaning that public and environmental health will be protected. The IKN's water system includes the employment of natural systems such as forests, floodplains, reforestation, and soil husbandry (combined to form a green infrastructure) to contribute towards providing a reliable drinking water supply while offering protection against both flooding and droughts.

F.5 Development of Public and Social Facilities

In general, the development of public and social facilities will implement the principles of service scale, pedestrian access, and regional integration. These principles aim to improve the effectiveness of public and social facilities for the residents they serve. Meanwhile, the general design principles that will apply to public facility structures include:

a. accessibility;
b. connectivity;
c. green infrastructure;
d. management;
e. security; and
f. disaster response.

Along with the increase in population, the number of public and social facilities will have to grow in order to anticipate population growth so that they can continue to fulfill community needs. The assumptions used in calculating the future demand for public facilities are:

a. Adjustments made to achieve more efficient land use, such as by combining public and government service functions within the same structure, as in the following examples:
    i. Public and Government Services
        1) The RW (administrative neighborhood) center will be combined with a library and multipurpose hall for the more effective use of land and to make sure that these facilities can be easily accessed by on foot from residential areas.
        2) The urban village office will be combined with a multipurpose hall for the more effective use of land and to make sure that these facilities can be accessed within 10 minutes' walk of a secondary mass transit hub.
        3) The kecamatan (sub-district) office will be combined with a multipurpose hall for the more effective use of land and to make sure that these facilities can be accessed within a 10 minutes' walk of a primary mass transit hub.
        4) The estimated land requirements for such combined facilities will be based upon the permitted building coverage ratio (BCR) and structure height.
        5) Police office and fire stations will be separated from the combined public and government service facilities due to the unique character of the services they are supposed to render.

ii. Healthcare Services

1) Healthcare facilities will be separated from combined public and government service facilities due to the unique character of the services rendered. One important concern is limiting the risk of contagion to the users of other service facilities.
2) Healthcare facilities will be required to be within 10 minutes' walk of one or more public transportation stops.
3) Healthcare facilities should preferably be situated in the vicinity of public open spaces and religious facilities according to their scale of service.
4) For Primary Healthcare (Community Health Centers (Puskesmas), Primary Clinics (Klinik Pratama), Referral Healthcare (Hospitals), and Clinical Laboratories:
   a) The demand will be calculated according to the number of kecamatan (districts), desired ratio of healthcare facilities to total population, and local characteristics. The mapping of this demand will also consider the demand for healthcare personnel needed to staff the healthcare facilities as well as demographic transition and epidemiological patterns.
   b) Hospitals will be developed in compliance with international standards to offer high-quality healthcare while also serving as centers for the development of traditional healthcare services.
   c) Clinical laboratories will pay due attention to the fulfillment of biosafety level standards.
   d) The abovementioned facilities should preferably be situated in the vicinity of public open spaces and religious facilities according to their scale of service.

iii. Educational Facilities

1) Land requirements for schools will refer to prevailing regulations.
2) The calculation for land requirements will assume two or more floors for all categories of schools in order to reduce the demand for land.
3) Institutions of Higher Education consists of top universities and other institutions of higher education.
4) The number of students, faculty, and staff in top universities will be adjusted to suit the needs of the IKN's development stages.
5) The number of students in institutions of higher education, including polytechnic schools and other universities, is assumed to be around 16 percent of the population in the 19–25-year age bracket who have chosen to pursue higher education.

b. Validation of the distribution of principal public facilities (kindergartens, secondary schools, and clinics) will confirm whether these facilities are within 10 minutes' travel distance with active mobility.

c. Educational facilities will be provided up to the high-school level to serve the KIKN's entire residents.
d. The need for retail spaces (community or traditional markets) will be calculated according to national standards.

Meanwhile, public and social facilities within the KIPP can be divided into the following categories:

a. Parcel and District Scale
   Parcel-scale public and social facilities are public and social facilities with a service scale of under 15,000 people, within the reach of a 5-minute walk, and are integrated into structures located in semi-public areas.
b. Sub-Sub-BWP/ Urban Village Scale
   Public and social facilities at the Sub-Sub-BWP/Urban Village scale are public and social facilities with a service scale of 15,000 to 30,000 people, can be reached with 10 minutes of active mobility, and are located in public district centers.
c. Sub-BWP Scale
   Public and social facilities at the Sub-BWP scale are public and social facilities with a service scale of 30,000 to 200,000 people, can be reached with 20 minutes of active mobility, and are located in public regional centers.
d. KIPP Scale
   KIPP-scale public and social facilities are public and social facilities with a service scale of over 200,000 people, can be reached on foot, and are integrated with public transportation. These facilities are located in urban areas with easy access and may constitute urban landmarks.

In addition to the four categories above, the facilities specifically dedicated to support the IKN's performance within the KIPP include art and cultural facilities, national-scale religious facilities, diplomatic facilities, higher education and research facilities, and smart city support facilities.

F.6 Mobility and Connectivity

Transformative and integrated mobility with a focus on quality of life can be used as an economic prime mover and a distinguishing factor for the IKN through the provision of sites and networks that are well connected, easily accessed, resilient, and future-oriented. At the same time, the fundamental principles of transportation development are designed to fulfill all KPIs related to the principles of connectivity, activity, and ease of access.

Some important aspects that deserve consideration are potential impacts upon the social and natural environment, the integration of land use planning, economic strategies, and feasibility issues in infrastructure development. Thus, these consideration can generate recommendations for transportation concepts, principles, and guidelines that are holistic, focused, and can provide results that are in proportion with the value of investment, while being able to facilitate the IKN's development goals as a whole. The main

principle is to prioritize innovation and flexibility and to consider a variety of future possibilities. The six mobility strategies are (1) connected city, (2) compact and easy-to-develop city, (3) sustainable and easily accessed city, (4) active and pedestrian-friendly city, (5) efficient, safe, and resilient city, and (6) future-ready city.

F.6.1 Connected City

Transportation infrastructure will be a catalyst for economic development with direct access into the IKN and the tri-city three-city region as well as access to both domestic and international routes. The fundamental principles of the connected City transportation strategy are:

a. external connectivity with an emphasis on fast and direct passenger and freight connections to and from the IKN territory, involving both surrounding cities and broader national and international scales;
b. internal connectivity with an emphasis on fast and direct mass transit connections between subordinate centers within the IKN to guarantee strong internal connectivity, utilization of agglomeration, and the minimization of dependence upon private vehicles; and
c. gateways that make use of the expansion of existing air and maritime gateways and connections tailored to the IKN in addition to promoting development within the Tri-City three-city region.

Transportation networks have been developed in accordance with long-term economic development strategies in order to ensure the establishment and/or maintenance of important connections between economic centers and principal transportation infrastructure such as airports and seaports.

Regional Rail Connectivity

The Conceptual assessment of a potential rail corridor from Balikpapan to the IKN has considered the following crucial aspects:

a. Environmental, social, and technical engineering considerations. The conceptual alignment of the corridor has been refined to avoid or mitigate social and environmental issues.
b. Transit system connectivity between seaports, airports, Balikpapan City, KIPP, KIKN, and KPIKN to integrate activity centers in the - tri-city three-city region.
c. In addition to rail connectivity, the railway concept also takes into account includes regional rail connectivity for the transportation of goods between main gateways (such as seaports) and industrial areas.

Regional Bus Connectivity

Regional rail connectivity will be supported by regional bus services within the KPIKN area and its surroundings. This will guarantee a choice between multiple modes of public transportation and enable a greater degree of penetration into local and isolated settlements. Although the plans for a regional bus network are considered flexible enough to be implemented after

the KIKN has come into operation, this technical strategy proposes the construction of an intercity/long-distance bus terminal within the KIKN. This bus terminal will preferably be collocated with the gateway station as the first regional train station within the KIKN's boundaries for departures towards the KIPP and will be developed as a principal mobility hub or center that will allow intermodal transfer between regional railway networks and the KIKN's primary and secondary public transportation corridors.

Regional Road Connectivity

Main road infrastructure is part of the new integrated transportation strategy for the IKN area and the East Kalimantan Province in general. This is intended to support the broader regional road strategy for the Tri-City three-city region and the East Kalimantan province, reinforce regional passenger and freight connections between main activity centers and gateways (seaports and airports), answer the demand for road-based public transportation by accommodating bus connections within the tri-city three-city region, and connect the IKN with surrounding main activity centers in the East Kalimantan Province. In accordance with the rail corridor concept, the regional road strategy will also provide main freight connectivity to related activity centers, principal transportation infrastructure, and gateways (airports and seaports).

Main Gateways (Airports and Seaports)

Air and maritime gateways are important hubs for the IKN in the movement of both people and material resources, both domestically and internationally. These gateways will be located near urban areas and will play an important part in driving the IKN's consolidation and economic growth. The IKN will be connected to the gateways through strategic roads and railways as part of an integrated inter-center transportation network. The existing seaport capacity is deemed sufficient to serve future demands from the new city.

a. Airports

   The airport that will have the most a significant impact due to the development of IKN is Balikpapan Airport, but Samarinda Airport will also plays an important role in supporting the IKN’s air access infrastructure airport infrastructure for IKN. An evaluation on airport development strategies should consider the development of the entire East Kalimantan region as a whole since the airports' carrying capacity should be enough to serve the entire province. Population growth projections show a significant increase in population between 2025 and 2045 in the region. Furthermore, a comparative study analysis has been conducted to evaluate the total population upon the passengers per year as a benchmark for cities around the world in order to strengthen the relationship between the population and annual passenger trips. to have more connection between the population and annual passenger trips, a comparative study analysis has been conducted to effect of total population upon the passengers per year as a benchmark for cities around the world.

b. Seaports

The main seaports around the IKN region will play a critical role in the success or failure of the IKN's economic strategy. There are two important seaports within the IKN region that deserve particular consideration in the development of regional connectivity strategies, namely:

1. The Semayang Sea Port in Balikpapan Bay. As a public port on international sea routes, the Semayang Sea Port also serves long-distance passenger routes; and
2. The Kariangau Terminal (KKT) deeper in the interior of Balikpapan Bay, serving as an international cargo port.

All of the proposed transportation infrastructure projects will require a detailed feasibility study to refine their alignments and specifications. These studies will mitigate impacts upon the environment and local communities.

F.6.2 Compact and Easy-to-Develop City

The main goal of the IKN's plans is to create a future city that will not be dependent upon private means of transportation, relying instead upon the Transit-Oriented Development (TOD) concept. The goal is that communities can live, work, and play well, a community that allows more pedestrians, cyclists, and transit users, as well as can reduce the need of daily trips and a compact city. Thus, the fundamental principles of the mobility strategy of a compact and easy-to-develop city include:

a. ensuring integrated and connected development that places communities close to business districts;
b. centralizing the development of integrated transportation and land use planning through TOD that reduces the need for travel;
c. viewing the IKN as a series of separate development cells that should grow organically over time to avoid uncontrolled development over the entire area, keeping the TOD as the principal framework; and
d. providing services that will support the concept of living, working, and recreation playing within the local development cell and ensuring the development of a high-quality transit network from the start in order to implement the mission of a city less dependent upon private vehicles.

The scope for the Compact and Easy-to-Develop City Strategy covers:

a. compact and easily developed modules as walkable urban "building blocks";
b. integrated transportation and land use planning, especially through TOD; and
c. reduction of the need to make long-distance trips.

The IKN is planned to consist of a number of compact high-density neighbohoods neighbourhoods that function as the city's building blocks. These neighborhoods will implement the mixed-use concept to reduce the need for transportation and provide all the functions needed to guarantee

access to all basic and public activities as well as green open spaces within 10 minutes of walking, cycling, or riding in autonomous vehicles (promoting an active lifestyle under the walk-cycle-ride).

It should be emphasized that the TOD is not restricted to property developments close to transit hubs. A number of TOD principles are laid out below to show the integration of the TOD concept.

Figure 3-8 Transit-Oriented Development Principles for the IKN

Transit Oriented Development Principles	Illustration of the Conceptual Plan
1. Developing neighborhoods that encourage walking; 2. Prioritizing active mobility networks; 3. Creating a dense network of roads/routes; 4. Finding development sites close to high- quality public transportation; 5. Planning multi-functional transit according to usage, livelihood, and demographics; 6. Optimizing densities and adjusting transit capacity; 7. Creating areas with short transit trips; and 8. Improving mobility by regulating parking and road usage.	

Source: Ministry of National Development Planning/National Development Planning Agency, 2020

The main goal of the IKN's development framework is to reduce the need for trips, to implement the TOD vision right from the beginning, and to create dynamic communities that minimize the need for trips using private means of transportation, all while reducing travel times and increasing the availability of sustainable modes of travel. These measures will offer the following benefits to the IKN:

a. ensuring more compact and connected development;
b. reducing the need for infrastructure therefore can reduce capital expenditure;
c. supporting the goal of a net-zero emission city; and
d. promoting a change in travel behaviors.

The mixed-use land concept and gradual strategy is designed to minimize the travel between different zones and ~~to~~ provide enough public facilities (such as schools and commercial areas) to fulfill local needs within each individual zone. Current land use plans and transportation strategies indicate a excessive percentage of internal trips, sometimes over 80 percent during rush hours. This strategy means that each zone can function independently while remaining well-connected to other parts of the KIKN, allowing so that it allows high densities and reachability to reduce the need for trips, infrastructure loads, and transportation costs, and save time, while promoting active mobility and public transportation.

The idea of a compact and easy-to-develop city for the IKN constitutes a synchronized and coordinated effort that enables a flexible and sustainable arrangement of stages in the capital's development.

a. Once a TOD hub has been fully inhabited and effectively served by public transit and facility services, then the next TOD development area will begin to function.

b. From the mobility standpoint, this will enable the gradual expansion of transportation networks in complete accordance with spatial plans so that it will be possible for the growth of the transportation network to be in step with population and economic growth. This idea also promotes the provision of independent transportation at every stage of development, not only to fulfill mobility needs but also to work in sync with the staged strategy to achieve better value for money.

c. The traffic concentration caused by the compact urban layout will create enough transportation demand to justify the provision of high-frequency transit services with the concept of walking, cycling, and utilizing public transportation compared with the use of private vehicles.

F.6.3 Sustainable and Easily Accessible City

Public transportation and low-emission mobility should be prioritized in the interest of creating a sustainable city with an equitable transportation system for the people. The fundamental principles of the Sustainable and Easily Accessible City layer of the mobility strategy are:

a. the provision of a high-quality mass transit system as a backbone for all mobility services;
b. the provision of integrated options and hierarchies of modes of public transportation, from strategic corridors to long-range connections, that will offer equitable access to all;
c. a target of 80 percent of all trips being made on either public transportation or active mobility in the IKN area, and indeed up to 90 percent for the highest-density hubs;
d. target of having all IKN residents living within a 10-minute radius of public transportation;
e. an emphasis on the net-zero emission principle for both mass transit and private vehicles;
f. the provision of more direct and priority routes for public transportation rather than private vehicles;
g. mobility hubs, being integration nodes strategically situated to support future innovations in mobility;
h. the promulgation of favorable policies or regulations such as major subsidies (or even waiving all fares) for user of public transportation;
i. the provision of an integrated and combined payment systems for both road- and rail-based public transportation; and

j. the establishment of an integrated governmental/administrative framework for the planning, management, and monitoring of the urban transportation system.

In the interest of creating a sustainable and easily accessible city, an integrated hierarchy of public transportation is proposed to emphasize the development of high-quality mass transit and form the backbone of all mobility services. The hierarchy of public transportation will consist of various services that serve particular mobility needs. The public transportation hierarchy will support these plans and help maximize the availability of mobility options through a variety of modes and unlimited connectivity, which will include:

a. regional corridors, being direct and express regional connections that offer external connectivity to and from the IKN's regional gateway station(s);
b. primary corridors, being mass transit systems that connect high-density IKN modules, major activity centers, gateways, and main transit hubs. The main corridors are centred along the North-South IKN Route and the East-West IKN Route. The choice of technology must be based upon actual needs and land use planning according to the relevant stage of development; this may take the form of urban trains, mass rapid transit (MRT), or light rail. Priority will be given to autonomous and net zero emission vehicles;
c. secondary corridors, being high-quality public transportation that connects medium- density modules to the primary network. The technology must be based upon actual needs and land use according to the relevant stage in the detailed master plan, and may take the form of trams /electric trams), bus rapid transit (BRT), or high- quality bus corridors. The priority will be on low-emission and net zero emission vehicles; and
d. tertiary corridors, which may not be displayed in detail at the city level, but it will help fulfill local and intra-community needs for first/last mile connectivity to primary and secondary transit networks. This corridor will include feeder buses, connected autonomous vehicles (CAV), other first/last mile services, and mobility hub networks.

In order to achieve the KPI target of having 80 percent of all trips being made on public transportation and active mobility within the KIKN (mode-sharing), proposals for integrated transportation and land use plans have been analyzed to obtain estimated trip lengths and optimal mode shares for particular rush hours. Initial analysis shows of the KPIs and policy targets that can be achieved in every zone within the KIKN shows that level of trip by public transportation and active mobility is 80-percent or more. This shows that the proposed primary and secondary corridors can function effectively according to the land use distribution and pedestrian friendly city concept that will be explained later) that offer more attractive mobility options than road-based, privately-operated vehicles.

In order that public transportation will draw public interest, the public transportation network must be reachable with active mobility. Compared to the tertiary network that emphasizes widespread penetration in order to guarantee first/last mile connectivity, the public transportation system will need to offer high-frequency, high-capacity services capable of accommodating ridership spikes during rush hours without compromising speed and comfort over the course of the trip.

Bus networks will be intended to serve passenger movement from secondary road/highway networks to primary public transportation hubs and vice versa. This network will also connect to future tertiary corridors as the provider of long-distance first/last mile services. The network will be developed under an approach that splits the KIKN area into three zones/categories in order to establish more focused service zones with comfortable route lengths for urban bus trips. These mobility hubs will enable the IKN to fulfill mobility needs in a way that will be more integrated, trouble-free, and capable of anticipating future developments by incorporating chief innovations. The components of such a system will consist of:

a. public transportation, including mass transit, bus/shuttle interchanges, improved lobby/waiting room facilities, real-time schedule information, and dynamic transit screens;
b. active mobility, including pedestrian facilities, personal mobility devices (PMDs), bicycle parking facilities, bicycle repair/storage facilities, bicycle rentals, and dynamic route information;
c. parking spaces, including common parking centers, dedicated pick-up/drop-off (PUDO) sites, flexible sidewalks, ride-sharing as needed, car sharing/carpooling, smart parking systems, electric vehicle charging stations, and connected autonomous vehicles (CAVs); and
d. logistics, including package delivery center as well as last-mile expedition (e-trikes, drones, or automatic vehicles (AVs) if found to be suitable).

Although public transportation constitutes a sustainable mode from the environmental health standpoints, the IKN will also adopt initiatives to ensure that transportation provision will prioritize the principle of net-zero emission. Some of the key aspects in implementing this net-zero emission goal are:

a. public transportation should emphasize electric power or hydrogen-based fuel. Rail systems should also preferably be fully electric. The bus fleet should also be electric. However, subsequent stages may lay down rules on the employment of hydrogen-fuelled buses;
b. digital systems to ensure the optimized and efficient use of transportation resources, which requires responsive actions to minimize energy and power consumption;
c. priority in the use of building materials with low energy consumption and low embodied carbon, and construction materials and tools are to be obtained locallyor as recycled products whenever possible;

d. the materials and technologies used have positive environmental impacts or the absolute minimum of negative ones; for examples include alternative road surface compacting materials that could reduce the urban heat island effect and/or reduce the fuel consumption of vehicles running on it; and
e. precise resource management, including energy, materials, and equipment/vehicles that adopt life-cycle approaches and promote a circular economy that takes into account of optimal reduction of waste generation and encourages value restoration.

In this sustainable and easily accessed city strategy, local residents living in settlements close to the southern main region will be able to access the KIKN and KIPP through expansions of the primary and secondary road networks. This network expansion will in turn enable secondary and tertiary bus services (such as regular bus routes) to fulfill the needs of local communities by connecting them to primary sites or mobility hubs in the KIKN and KIPP.

F.6.4 Active and Pedestrian-Friendly City

An active and pedestrian-friendly city is designed to prioritize pedestrians over motor vehicles. The IKN is built to provide pedestrian zones that will make the IKN a viable place to live, work, and play in. The fundamental principles of the active and pedestrian-friendly city strategy include but are not limited to:

a. green belt corridors: connecting together a network of strategic green belt corridors for active mobility, especially active mobility connections/routes that complement and display the IKN's natural assets;
b. vehicle-free zone initiatives: enabling innovation with vehicle-free streets and zones in urban areas;
c. active mobility networks with high connectivity: providing wide-ranging active mobility networks, especially for first/last mile connectivity of a particular quality standard (by walking,, cycling, or Personal Mobility Devices (PMDs)) that will be fully integrated with public transportation networks;
d. neighborhoods that can be traversed on foot and prioritize people: facilitating dynamic sites with neighborhoods that can be traversed on foot and tailored to the tropical climate, and planning out road networks that prioritize people as part of the movement-and-place concept;
e. suitable microclimate: aiding in the promotion of active mobility in the tropical climate by integrating microclimate factors into the IKN's design and planning;
f. inclusive design: in order to promote access, all of the IKN's principles are properly designed to remove barriers between physical spaces and communities. People of advanced age, with disabilities, and with mobility issues often require extra help to negotiate physical obstacles in an urban environment.

At the strategic level, green belts (green networks), ecological corridors, pedestrian lanes, and bicycle lanes not only offer great potential for recreational mobility, but can also be integrated with public transportation networks at multiple points to significantly increase intermodal connectivity.

Meanwhile, at smaller scales, vehicle-free streets will offer basic access corridors to support a dynamic community life. These vehicle-free streets will offer safe low-velocity environments for pedestrians and active modes of transportation (such as bicycles and PMDs) to share road space and engage in active interaction with building facades. These spaces will also be open to tertiary transit services, such as connected autonomous vehicles (CAVs) that will provide local or transit connections. At the design level, microclimate factors will be thoroughly integrated into the IKN's plans to help stimulate active mobility in the tropical climate.

F.6.5 Efficient, Safe, and Resilient City

The new system of transport corridors as a manifestation of principle-based design combined with road transport will form an ecosystem that does not lay additional burdens upon the natural environment. The fundamental principles of the efficient, safe, and resilient city layer of the mobility strategy include:

a. establishing a new transportation hierarchy and road ecosystem that prioritizes people and rebalances priorities in favor of public transportation, ride sharing, cyclists, and pedestrians;
b. implementing innovative transportation strategies that separate freight and passenger traffic, concentrating strategic cargo traffic along urban peripheries, distributing consolidation centers, promoting environmentally friendly solutions, and adopting new technological solutions;
c. designing main road corridors that will place busy strategic traffic flows at a distance from residential areas, prioritize faster routes for public transportation, and offer multiple options and urban entrance/exit points to build resilience;
d. adopting intelligent transport systems (ITS) with new technological solutions that can bring positive impacts to the community, the environment, and the economy within the IKN
e. providing layers of supporting policies with options that may include electronic road pricing, controls upon vehicle ownership, and strategically located public parking centers (no private parking spaces);
f. introducing new approaches for road intersections that will rebalance priorities away from motor vehicles and towards public transportation, ride sharing, bicyclists, and pedestrians;
g. providing supporting policies with options that may include electronic road pricing, controls upon vehicle ownership, and strategically located public parking centers (no private parking spaces);
h. rebalancing priorities away from motor vehicles and towards public transportation, ride sharing, bicyclists, and pedestrians.

The IKN's road network shall be based upon a separation between strategic traffic and residential neighborhoods, prioritization of faster public transportation routes, and guaranteed access at both the regional and city levels. The road network within the urban areas shall be described as follows:

a. Main road networks will connect various development areas to complement primary public transportation corridors. This is intended to make sure that public transportation will offer more direct connections. Main roads will also accommodate several secondary public transportation routes.
b. Secondary road corridors are not shown due to their greater flexibility. They will be presented in the layout of built environments at more detailed planning/design stages, with road corridors designed as multimodal spaces for all kinds of vehicles.

Integration between the IKN and local communities will also be a major focus of attention in order to ensure that everyone will be able to obtain access to the KIKN and KIPP. Roads have been planned according to feasibility classification that will support the overall public transportation strategy within the KIKN, whereby local residents will be served by secondary and tertiary bus services.

Road construction in the IKN will abide by the best practices of international road hierarchies. This is intended to ensure harmony with the roads' functional usage, access and affordability, synchronization with the concept of zones/areas that can be traversed on foot, and the appropriate intervals between intersections for the sake of traffic safety and efficiency. Detailed planning and design for the transportation network in subsequent stages will reflect the KPIKN's guidelines for travel distances.

Secondary urban corridors will accommodate special bus lanes as a part of the secondary public transportation network and tertiary feeder services. This corridor will accommodate urban trips within the KPIKN and provide connections to local access roads. The traffic lanes will be used by all kinds of vehicles including taxis, both conventional and digital (e-hail), as well as other small vehicles heading towards retail and commercial areas. Special bicycle lanes and active mobility vehicle lanes will be clearly provided and marked on both sides of the road to create safe circulation and public spaces for pedestrians. Despite the similarity to primary urban corridors, the secondary corridor has a larger number of specialized spaces to provide high-quality transit services as part of the secondary public transportation network. These corridors will accommodate urban traffic that facilitates trips between different development areas.

Strategic urban corridors will accommodate heavy vehicles (especially for freight) and will only be intended for regional trips. These roads will be used for regional public transportation buses without specialized transit lanes. Since active mobility will be more focused upon urban areas, this kind of road will not prioritize active means of mobility, and active mobility/green belt corridors will be provided separately.

By combining smart applications and the choice of appropriate digital technologies for various modes of transportation, Intelligent Transportation Solutions (ITS) can promote efficiency to create a safe, reliable, and sustainable transportation system for the IKN. Some of the ITS strategies to be provided within the IKN are real-time multimodal trip and traffic information systems, incident management actions, and parking management systems. Some ITS measures will be essential for the improvement of the public transportation system, such as integrated smart ticketing, priority actions, real-time data analysis, and necessary management. The urban logistical strategy will make use of a loading bay management strategy and fleet operation systems to maximize efficiency. There are many ITS elements that the IKN will be able to utilize in its future plans, such as these two:

a. System and operation: ITS will help the IKN achieve the goal of improving safety, optimizing available infrastructure and road space, increasing the availability of transportation options, delivering environmental improvements, and managing both foreseen and unforeseen events.

b. Mobility Pricing: an ITS system can aid in the determination of mobility prices and other principal initiatives for the IKN should they become necessary in the future.

The IKN should take account of resilience in the design of its urban infrastructure systems, especially for transportation, so that the city and its residents will be able to mitigate environmental threats, natural disasters, social and economic shocks, and the complex and ever-changing challenges of the future. The IKN's mobility strategy includes resilient mobility systems that can offer seamless, reliable, efficient, and flexible multimodal services prepared with system redundancies to be able to tackle the abovementioned threats and challenges. With regards to integrated resilience, the IKN should be understood as a holistic system that integrates the transportation strategy with other aspects such as parallel strategies for the economy, water, energy, waste infrastructure and related networks, and will form an interdependent network with other systems to provide a foundation for systemic resilience.

An overarching parking strategy for the IKN is proposed to support a mix of urban modes, 80 percent of which will be made up of public transportation and active mobility while only 20 percent will be made up of private means of transportation. As such, the main issues relevant to this strategy include:

a. all parking facilities will be publicly used through shared parking at mobility hubs;

b. the number of parking spaces near high-density zones will be far lower than those near medium- and low-density zones;

c. digital and IT strategies that facilitate the management of parking demands will be implemented to guarantee comfort and efficiency in the provision of parking spaces;

d. parking spaces will be designed for adaptability so that these spaces could be repurposed for other uses with the decline in private means of transportation in favor of public transportation, ride sharing, and remote work.

At the strategic level, the IKN can facilitate the implementation of innovative freight and logistical strategies. This strategy will attempt to achieve the following:

a. separation between freight and passenger traffic for both safety and efficiency;
b. concentrating strategic freight traffic along urban peripheries in transportation corridors that serve main external gateways. This measure can free central and high-density zones from the presence of heavy freight vehicles and improve route utilization, operational times, and safety protocol;
c. placing large-scale consolidation centers along strategic freight routes;
d. implementing hub-and-spoke systems to support consolidated operations at the development level; and
e. promoting environmentally friendly logistical solutions and adopting new technologies that support long-distance delivery innovations such as electric bikes, drones, and autonomous vehicles.

Strategic freight corridors will form part of the IKN's layered freight/logistical strategy. The strategic concept for freight and logistic seeks to create an efficient logistical system with minimal impacts upon urban traffic to increase transportation safety. This strategy will consist of a predetermined hierarchy from the regional level to the end-user destination.

The regional level as the highest level will cover cargo airports, cargo seaports, freight railways, and large freight trucks. The freight from this level will be collected in primary consolidation centers for further distribution to smaller and more environmentally friendly modes of transportation that will take them into the KIKN's urban areas. The next step will involve smaller-scale consolidation in neighborhood consolidation centers, whose structures will be integrated into the urban area. Finally, the last stage will involve the distribution of goods to their final destinations with first/last mile transportation. Other main considerations for consolidation centers include:

a. Location: consolidation centers must be sited for easy access to the main road network and integrated with needs for both distribution and delivery services according to urban operational requirements or the operation of the IKN's industrial supply chains.
b. Size: the scale of consolidation centers will be determined by the volume and distribution of traffic they need to process on a daily basis. Consolidation centers will normally include areas dedicated for security scanning, off-site storage, facilities for frozen/refrigerated goods, loading and unloading, driver and freight crew accommodation, and other activities.

c. Vehicle Types: deliveries performed by small vehicles to be loaded into larger vehicles and vice versa. The hierarchical model makes use of a hub-and-spoke fleet.

The success of the freight/logistical strategy is closely related to business and industrial logistical demands. As a green city, the IKN offers the opportunity for a holistic development of standard and supporting equipment, standard operational procedures, movement processes, and consolidated relationships and integration with the various industries to be built and developed within the IKN.

F.6.6 Future-proof City

This strategy promotes innovation and future-oriented priorities with the following principles:

a. future places, being places to implement the concept of live, work, and play in a concretemanner through integrated land use, mobility, and the development of adaptable spaces, compact and connected development, and the incentivization of active means of mobility;

b. future travel, being a paradigm that embraces innovation to improve travel through mobility as a service (MaaS), dynamic route search, and future means of mobility (including electric vehicles (EVs) and connected autonomous vehicles (CAVs)) for public transportation;

c. future data, being data that enable investment that will be more appropriately targeted, have more concrete impacts, and will be more efficient in providing transport infrastructure and services with the use of big data to obtain a better understanding of user behavior and movement to, from, and around the IKN;

d. future roads, being roads that prioritize modes and patterns of mobility in the IKN as a whole to favor public transportation and active mobility and provide more flexible and adaptable roads during the day;

e. future parking, being a parking system that manages parking needs (supply and demand management) and public parking centers, and enables adaptable parking structures to be repurposed as proof for the implementation of CAVs in the future; and

f. Future logistics, being logistical systems that adopt smart delivery and consolidated, separated, and efficient logistics.

F.7 Energy Infrastructure

The IKN Master Plan proposes that 100 percent of IKN's annual electricity demand be supplied by renewable power plants, including solar power plants or solar farms and rooftop solar panels. To meet the demand and anticipate the unstable supply of solar power, IKN will be connected to the Kalimantan electricity system. During periods of low irradiation, IKN will take the required supply from the Kalimantan electricity system. During peak periods,

excess solar energy will be stored and exported to Kalimantan electricity system. Battery and hydrogen are among the energy storage solution that can be considered.

The IKN urban transportation system uses a combination of electric and hydrogen powered vehicles. The electricity needs for electricity and hydrogen vehicles are projected to be around 900 MWh/day, consistent with the net zero emission vision of IKN. The total needs can be supplied by the system because it is still 4 percent lower than the total projected electricity consumption of the KPIKN.

The IKN electricity system consists of various sources of electricity, such as solar farm generators, rooftop solar panels, street lighting solar panels, and floating solar panels. Therefore, the ability of the network to distribute electricity supply from scattered generators requires an integrated electricity supply at any time. IKN plans to use smart grid, a network system that allows two-way electricity and data flow with digital communication technology to detect, react, and proactively adapt to changes in usage and various problems including:

a. more efficient power transmission;

b. faster response to changing electricity supply and demand;

c. faster power recovery after a power failure;

d. reduced operational and management costs for utilities;

e. more efficient load management;

f. increased integration of large-scale and distributed renewable energy systems; and

g. better integration of owner-customer power generation systems (e.g. the IKN roofpanels).

All cables for the transmission and distribution network are planned to be put underground in an integrated utility network. Although the cost is higher compared to above ground (overhead) network, underground transmission and distribution networks offers more benefits, which include:

a. protection from bad weather, such as heavy rain, strong winds, and lightning strikes;
b. protection from sabotage; and
c. least visual impact for better urban aesthetics.

With the use of smart grid, many internet-of-things devices, such as smart meters, sensors, and relays are connected to the electricity network. Inherently, this concept poses greater risk of entries for cyber-attack. Therefore, appropriate measures are needed to protect the broad flow of information and signal control in the network. A sound cyber security program must be designed from the start as an integral part of the security system. The program includes the prevention and defense against attacks, identification, authentication and access control, and communication and network protocols. All components in the network must be included in this

program, including the end users. Clear cyber security standards are also required for all devices that will connect to the power grid, including consumer devices such as smart meters and home-based photovoltaic (PV) systems.

IKN is designed to use mixture of hydrogen and natural gas as its source of city gas in line with IKN's vision of net zero emission. Although natural gas is considered as a source of clean energy, it is non-renewable. Therefore, IKN is designed to produce and export solar energy equal to the amount of energy used from natural gas to achieve KPI 100 percent of renewable energy.

To facilitate the incremental supply increase of hydrogen, KIKN will be divided into three clusters. Each cluster will have a different hydrogen and natural gas mixture proportion. The first and second clusters consist of development cells that will be developed until 2038 and will be supplied by 20 percent hydrogen and at least 80 percent natural gas. These cells will be divided into two clusters to facilitate future transition into a higher percentage of gas mixture. The third cluster consists of development cells that will be developed around the year 2038 until 2045 and will be supplied by at least 80 percent hydrogen gas. Areas outside KIKN that are still within KPIKN area such as military territory, industrial estate, and some more densely populated residential areas will be served by an independent city gas network. The supply proportion for these areas is 20 percent hydrogen and 80 percent natural gas.

For the long-term interest or beyond 2045, the design of the city gas network needs to have the flexibility to be converted into an integrated single system of 100 percent hydrogen-based city gas network. The use of cluster separation system from the beginning will help facilitate this transition in the future. The flexibility of this city gas distribution network is supported by its ability to accommodate natural gas (NG) and hydrogen gas. This flexibility can be achieved by ensuring that the pipe materials used are suitable for conveying natural gas (NG) and hydrogen gas (polyethylene pipes). In addition, pressure reducing equipment must be designed to withstand different flow rates of natural gas (NG) or hydrogen gas (via control systems).

F.8 Technology, Information, and Communication Infrastructure

The data center will be structured to serve the government's data and information technology (IT) systems, namely the central government data center and the edge data center. This data center is planned to be located in the KIPP area and will be built in Stage 2.

The provision of Technology, Information and Communication (ICT) is aimed at fulfilling the principle of "Convenience and Efficiency through Technology" in supporting the related KPI targets: (i) the availability of 100 percent digital and ICT connectivity for all citizens and businesses through the provision of ICT connectivity infrastructure, (ii) very high ranking in the United Nations'

e-government development index (EGDI); and (iii) more than 75 percent business satisfaction with digital service tools that are provided through the following ICT connectivity basic infrastructure that enables the implementation of smart city initiatives:

a. A 5G or next-generation network is a network of macro and micro-cell transmitters with the edge computing capabilities required for standard fifth-generation or latest-generation functionality in a cellular network.
b. Fiber Broadband is a broadband connection that uses fiber optic cables to transmit data at high speed to residential and business areas.
c. Fiber Backhaul is a buffer network connected to the global internet. Data centers and networks are facilities to support the connectivity of the centralized operations and government IT equipment for the purpose of storing, processing, and distributing data and applications.

The 5G or the latest generation network allows slicing, i.e., a technique of dividing one physical network infrastructure into several virtual networks with significant increases in bandwidth and latency. Each virtual network generated from the network sharing will produce a separate network that is intact and optimized for use for certain business purposes as well as various services and applications, which are categorized in three general categories, namely:

a. Enhanced mobile broadband, which is an application that creates bandwidth and high throughput from high data rate network for voice, video, and augmented reality;
b. Ultra-reliable and low-latency communication, i.e. a set of features designed to support essential applications, such as smart traffic management, smart network, and smart transportation system; and
c. c. Massive machine communication, i.e. an application that provides intermittent connection to a large number of devices thereby hosting small amounts of traffic such as smart waste and smart street lighting systems.

The Master Plan proposes that IKN build the necessary physical infrastructure to support 5G coverage or the latest generation network for the KIKN area progressively before reaching full coverage for populated areas in Stage 5. The 5G system or the latest generation network will be developed gradually in line with the Economic and Spatial Stage

G. FUNDAMENTAL PRINCIPLES FOR THE RELOCATION AND OPERATION OF GOVERNMENT CENTER

The vital aspect of the relocation of the national capital to Kalimantan is the relocation of the center area of government which consists of the executive, the legislative, and the judiciary. In this regard, the relocation of the national capital cannot be separated from the transfer of the state civil apparatuses as employees working in central government agencies. The relocation of IKN will become a momentum for bureaucratic reform through efforts to improve the effective and efficient governance at the central level through various plans as outlined below.

G.1 Relocation of IKN and Momentum for the Application of Smart Governance at IKN

The transfer of the state civil apparatuses to IKN is the impetus for the implementation of effective and efficient governance set on the precondition that IKN is built with the vision of "A World City for All". In addition, the reality shows that the development of information and communication technology, the massive wave of internet penetration, and the emergence of the COVID-19 pandemic have made the government more flexible and develop a digital-based connectivity. Institutional and bureaucratic reforms are part of the development of Indonesia in the Indonesia Vision 2045, namely "Consolidating National Resilience and Governance". The goal of the development of the Apparatus Sector is to realize good, clean, and authoritative governance based on law and professional and neutral bureaucracy. For bureaucratic and governance reforms, the following strategies are implemented:

a. The strengthening of the implementation of the state civil apparatus management through the application of the state civil apparatus national talent management, improvement of the merit system, simplification of echelonization, and arrangement of functional positions.

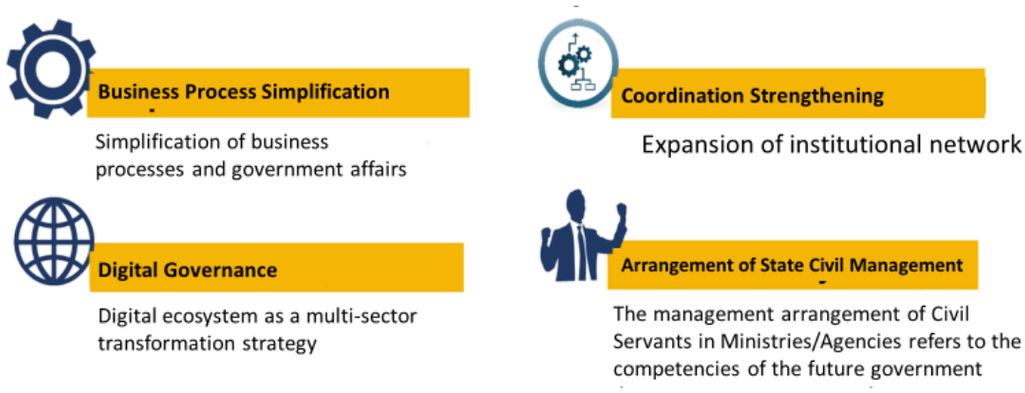
b. Alter institutional and business processes through institutional rearrangement and integrated electronic-based government system.

c. Reform of performance accountability system is conducted by expanding the implementation of the integrity system, strengthening the management of bureaucratic reform and accountability for organizational performance, as well as reforming the planning and budgeting system; and

d. Transformation of public services is conducted by electronic-based public services (e-service), engaging public supervision of public service performance, and by consolidating the innovation ecosystem and integrated services.

Currently, the paradigm of choice for IKN is the concept of a smart city for effective and efficient smart government that is implemented through bureaucratic reforms based on the values of participation, transparency, and efficiency in policy making, public service administration, and government administration in general. Three specific elements need to be fulfilled in the implementation of smart government, namely (i) government organizations that deal with the issues of commitment, responsiveness, and operational management; (ii) public participation, i.e. how and to what degree the public can participate in government operation; and (iii) the use of technology, i.e. how and what kind of digital technology can encourage participatory and collaborative governance as can be seen in figure 3-9 below:

Figure 3-9 Framework of Implementing Smart Government



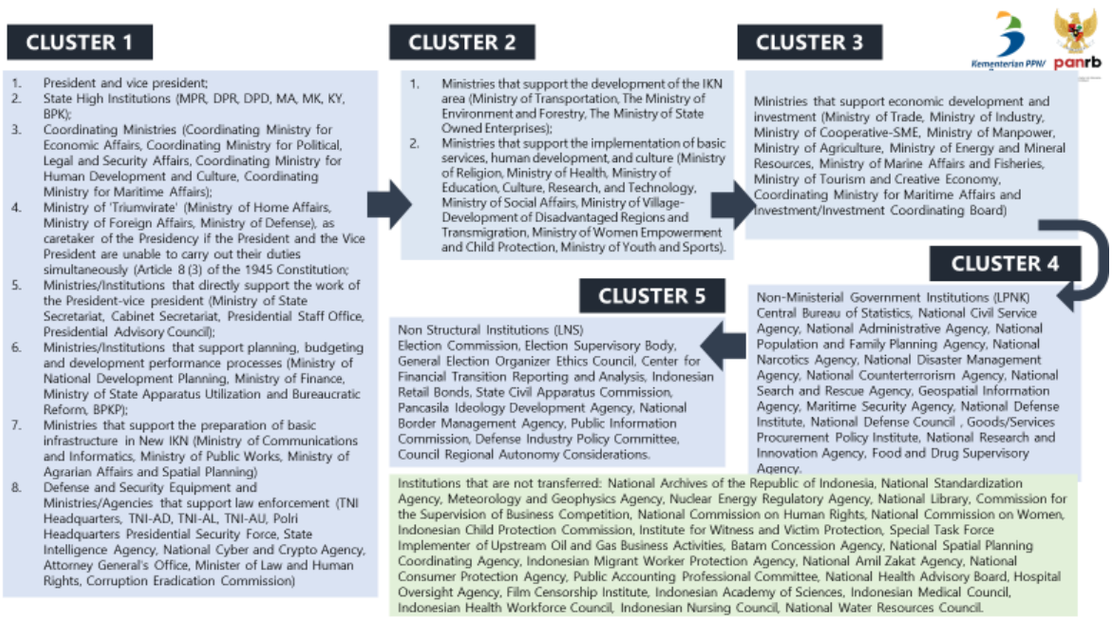
Source: Ministry of National Development Planning/National Development Planning Agency, 2021

G.2 Relocation Assessment of State Ministries, Agencies and State Civil Apparatuses to IKN

The relocation of Ministries/Institutions (M/I) relevant to the role of IKN as the center of government considers the order of government institutions as stated in the 1945 Constitution of the Republic of Indonesia, Law Number 39 of 2008 on State Ministries, and effectiveness of the central government operation in the five clusters. Some institutions are not planned to be relocated considering their roles, duties, and functions, which will be more optimal if they are not relocated to IKN.

The details of assessment for the relocation scenario of ministries/institutions can be seen below:

Figure 3-10 Ministry/Institution Scenario Assessment

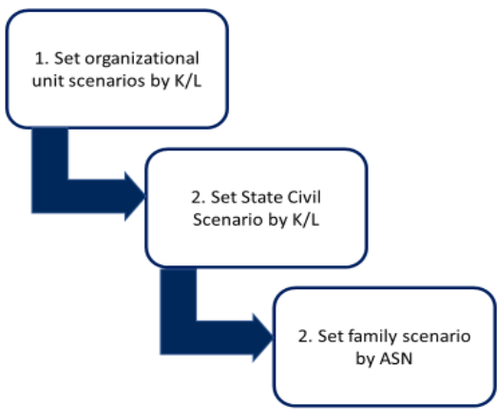


Source: Ministry of National Development Planning/National Development Planning Agency, 2021

G.3 Planning Framework for Relocation Stages of State Civil Apparatuses and Organ Units (Ministries/Institutions) to IKN

In general, the relocation of M/I and state civil apparatuses to IKN follows a three-part algorithm, namely (i) organization unit-based scenario prepared by M/I relocated to IKN; (ii) state civil apparatus-based scenario prepared by M/I that will be relocated to IKN; and (iii) family-based scenario prepared by the respective state civil apparatuses to be transferred to IKN as illustrated in Figure 3-11:

Figure 3-11 Planning Framework for the Stages of Transfer of K/L and ASN to IKN



Source: Ministry of National Development Planning/National Development Agency of RI, 2021

G.4 Assessment Corridor for M/I Organizational Units to be Relocated to IKN

The assessment of M/I organizational units that will be relocated to IKN is carried out by each M/I by considering the following corridors:

a. The level of importance /urgency of the organizational unit relocated to the initial cluster because:
   1) it is directly related to policy making;
   2) it directly supports the duties and functions of the management of the institution; and
   3) the organizational unit has a public service function (considering the number of services that are still centralized in the Province of Special Capital Region of Jakarta).

b. The potential that some organizational units that serve the function of public services may not be relocated to IKN (considering the number of services that are still centralized in the Province of Special Capital Region of Jakarta).

The IKN's vision of new ways of work transformation includes shared office, flexible working arrangement, and the vision of smart government. It should be considered that organizational units with a mandate to policy making will be more effective if they are close to M/I management with fewer state civil apparatuses than the organizational units that are in charge of service duties and functions. Additionally, organizational units that provide public services will be more effective

if they are close to the recipients of the services (the public and businesses) and they need more state civil apparatuses.

G.5 Assessment Corridor for State Civil Apparatuses Relocated to IKN

After assessing the M/I organizational units, assessment is made on the state civil apparatuses that will be transferred to IKN. The assessment is made by each M/I employment unit following the following corridor:

a. the state civil apparatuses must have an education level of at least Diploma 3 (D-3);
b. the retirement age limit;
c. the state civil apparatuses' performance data considering that 20 percent of the employees represents the performance of 80 percent of the employees; and
d. potential and competency assessment data.

H. FUNDAMENTAL PRINCIPLES FOR RELOCATION OF FOREIGN MISSIONS/REPRESENTATIONS OF INTERNATIONAL ORGANIZATIONS TO IKN

IKN is the new center of the Indonesian government including to the implementation of government policy in diplomatic field and the implementation of foreign relations policies with accredited countries. As regulated in the Vienna Convention of 1961on Diplomatic Relations and considering the implementation of strategic and optimal foreign policy with partner countries, bilateral, regional, and international cooperation, and public and other consular services, Embassies are located in the national capital. Therefore, foreign missiones, including international organizations in Jakarta must also be relocated to the diplomatic compound of the IKN in accordance with the set stages and timeline.

The development of IKN can also potentially encourage foreign governments who previously have not had their embassies in Jakarta to build their diplomatic mission/embassy or representative in IKN. This can lead to greater bilateral cooperation with new partner states and the development of international relations and cooperation.

The relocation of the representatives of foreign missions (FM) and international organizations (IO) to the IKN will also have a positive impact and contribution to the development of IKN as a city in terms of international cooperation, investment, city development cooperation, as well as trade and services. In addition, the transfer will also encourage the development of other sectors, such as education, health, and job opportunities.

In reference to the 2021 data, about 104 embassies and 31 international organizations will be encouraged to be relocated from Jakarta to the diplomatic compound at KIPP.

In addition to embassies and international organizations, there 25 honorary consuls and 21 ASEAN missions that are located in Jakarta. The seats of these honorary consuls do not need to be relocated to IKN. Foreign representatives for ASEAN mission do not need to be relocated because the ASEAN Secretariat is located in Jakarta.

The land for FM and OI in the area has been designated for diplomatic purposes. The relocation of FM and IO to the new national capital is expected to take place within 10 years after the designation date of the status of IKN.

Table 3-2 Reallocation of the New IKN for for Foreign Missions and Representations of International Organizations

	Reallocation of the New National Capital for ROFC and IO
Scenario	1. ROFC/IO relocate their representative offices to the newnational capital (IKN). 2. ROFC/IO open their representative offices in the new nationalcapital (IKN)
Supporting facilities that needto be prepared bythe Indonesian government	3. Land for ROFC and IO offices in the diplomatic compoundarea. 4. ROFC/IO relocation procedures during the transition stage andprovision of diplomatic services facilities for ROFC and IO. 5. IKN facilities and infrastructure to support the operationalactivities of ROFC and IO.

Source: Ministry of National Development Planning/National Development Planning Agency, 2020

I. THE FUNDAMENTAL PRINCIPLES FOR THE NATIONAL CAPITAL DEFENSE AND SECURITY

The Formulation of the IKN Defense and Security Strategy Master Plan begins with a study that involves defense and security experts, which is subsequently coordinated and consolidated with the Ministry of Defense, the Indonesian National Armed Forces (TNI), the Indonesian National Police (Polri), National Cyber and Crypto Agency (BSSN), National Intelligence Agency (BIN), and other defense and security agencies. The Master Plan of Defense and Security System is founded on the pillars of Defense, Security, Cyber Security, and Intelligence.

The Defense System and Strategy Master Plan is formulated in conformity with and in reference to Law on Defense, Law on the Indonesian National Police, Law on the Indonesian National Armed Forces, Law on National Intelligence, Law on Electronic Information and Transaction, Law on Eradication of Criminal Act of Terrorism, Presidential Regulation on the General Policy of National Defense, and Policy on National Defense.

The IKN defense is an integral part of the national defense which aims to build a formidable defense force that has deterrence capabilities for an archipelagic and maritime country. In order to prevent, deny, and destroy defense threats, layered defense systems and strategies are pursued with intelligent defense (smart defense) which combines the military hard defense and the non-military soft defense. Furthermore, this intelligent defense is synergized with total diplomacy as a form of dual strategy defense system. The development of national defense, both military defense and non-military defense, is carried out in an integrated manner with reference to the universal state defense system and which is directed at the following points:

a. Development of National Defense Posture

   The development of national defense is carried out achieve military and non-military defense objectives to become a respectable regional maritime power in East Asia based on the principle of active and layered defense in order to secure the national interests. National defense efforts are administered through the development of a sustainable national defense posture to achieve strength, capabilities, and deployment. The development of military defense posture is aimed at fulfilling the Strategic Essential Force component and prepare other defense components. Whereas the development of non-military defense posture is focused on the enhancement of the role of ministries and/or agencies in (a) overcoming threats, (b) ability to manage national resources, and (c) national facilities and infrastructure relevant to their respective duties and functions to support the national defense interests.

b. Development National Defense System

   The development of an integrated national defense system which consists of military and non-military defense that are aimed at creating a synergy and enhancing the coordination effectiveness and efficiency in the national defense operation.

c. Institutional Development

   The development of military and non-military defense institutions is administered to achieve integrated power in managing the national defense through institutional enhancement and restructuring.

Another concept in IKN defense system is the virtual maritime gate. A virtual maritime gate is a modern technology system gate with an imaginary architecture to ensure that the movement of people, goods, or other instruments, such as ships both on the surface and under the sea, can be accurately quantified. The IKN virtual maritime gate will be positioned in the

Makassar Strait, which is flanked by two large islands, namely Kalimantan and Sulawesi. This gate will identify all floating or underwater objects that cross the Makassar Strait towards IKN.

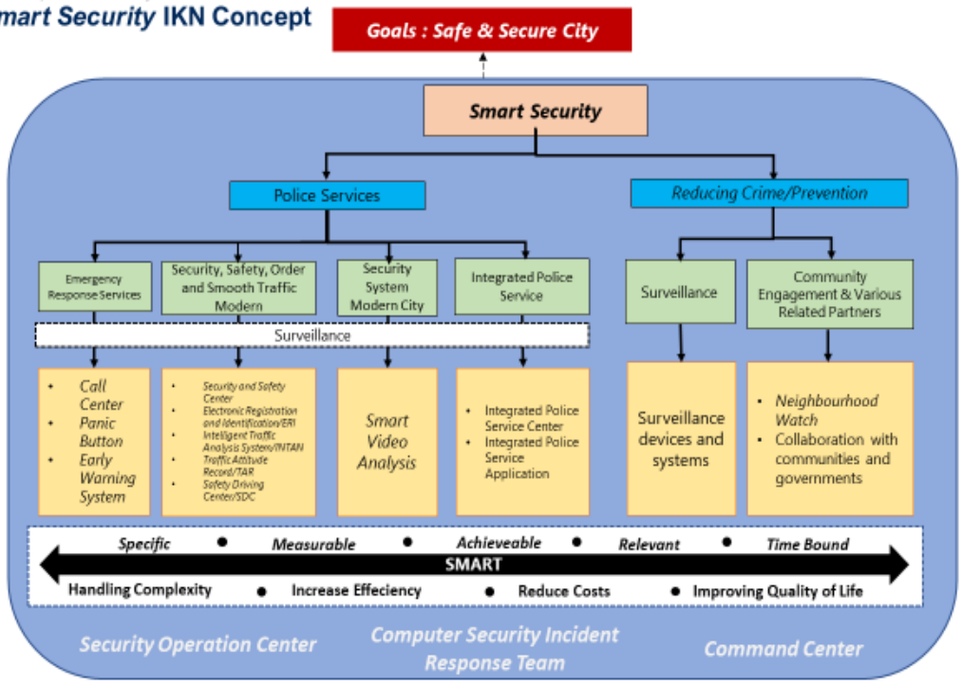
The architecture of IKN virtual maritime gate system is made of modern technology elements of today. These elements consist of sensors, platform buoys, a communication system, ground data terminals, data analysis software, and human interface for decision making needs. The technology element of the system consists of two floating early detection system modules, namely two ground data terminal modules and an information control center. The floating early detection system module is a detection system that can detect movement of objects on the surface and under the sea and can send digital data to the information control center. Moreover, the system is also capable of providing its own power supply. The technology element of the floating early detection system consists of platform buoy, power supply, active and passive sensors, a receiver, a transmitter, and a micro controller. The ground data terminal module is a technology system that serves to capture all data that come from the floating early detection system. The ground data terminal is a system that is stationed on a land area nearest to the early detection system which still makes it possible to connect to the existing telecommunication network. The data received by the ground data terminal are subsequently relayed to the information control center. The types of data received are classified according to the sensor receiving the data.

I.1 IKN Security System

In addition to the defense system, IKN will also have a sophisticated and modern security system. The IKN security system will be supported by intelligent security (smart security) which carries the concept of a unified, integrated security system that is able to predict hazards, disasters, and criminal acts on location with the use of security equipment (security system support). At this stage, the smart security system that is going to be developed at IKN will be focused on establishing a safe and secure city.

The IKN smart security concept is generally classified into two parts, namely (1) police services and (2) crime prevention/reduction. Police services consists of (1) Modern City Security System; (2) Modern Traffic Security, Safety, Order, and Smooth Flow; (3) Emergency Response Services, and (4) Police Administrative Services. The crime prevention aspect consists of (1) surveillance and (2) community and partner engagement. The smart security concept of the IKN is depicted in figure 3-12

Figure 3-12 *Smart Security* IKN Concept



Source: Ministry of National Development Planning/National Development Planning Agency, 2021

The control of IKN smart security system will be supported by several components, including (1) a smart command center, which is an integrated system based on information technology and big data (sourced internally or from the police) that supports the police public service operational activities and help work unit heads and operational heads to coordinate follow-ups in emergency situations or anticipate situations that can cause escalation of security and order disturbances; (2) security operation center (SOC) and/or monitoring center for police service application system that monitors the network and application security of police services at the IKN Indonesian National Police data center; and (3) computer security incident response team (CSIRT) in charge of cyber security to prevent cyber-attacks and restore digital system (if the cyber-attack failed to be prevented) on all the digital infrastructure of the smart security system.

The following are the explanations for each component of the smart security system of the IKN:

a. Emergency and Response

The emergency and response service of the smart security system will provide quick response to incidents and emergency situations reported by members of the public to the police. The emergency situations include crimes, security and order disturbances, and other emergency situations that can potentially cause or escalate security and order disturbances. The emergency and response service are supported by:

1. Call center (Police Service 110) which is a telephone line provided to the public to make a report or a complaint for a follow-up coordinated by the command center.

2. A panic button which is a command-center-supervised system that can warn the nearest police officers of an emergency situation faced by a person or a property. Panic button can be in the form of a smart phone application or a physical button located in specific/vulnerable locations.
3. An early warning system which is a chain of information communication systems that can predict and give signals of disturbances that may have harmful effect on the security of the city.

b. Modern, Secure, Safe, Orderly, and Smooth Flowing Traffic, *Keamanan, Keselamatan, Ketertiban, dan Kelancaran Lalulintas (Kamseltibcarlantas)*

Modern, Secure, Safe, Orderly, and Smooth Flowing Traffic System is a component of IKN's smart security system. It is aimed at creating and maintaining Secure, Safe, Orderly, and Smooth Flowing Traffic, improving safety and reducing the fatalities of traffic accidents, building orderly traffic culture, and improving the quality of traffic services to the residents of IKN. The IKN's modern system of *kamseltibcarlantas* involves the automation of some or all traffic functions of the police, such as traffic blocking and diversion, law enforcement, and traffic quick response.

All IKN traffic services will be coordinated through traffic management center (TMC). TMC is a communication, coordination, and information command control center that provides a quick response to traffic issues and manages road safety. There are two options for TMC operation. First, TMC can become part of and integrate its functions with the IKN command center with some adjustments relevant to TMC's functions. Second, TMC is built separately from the command center, but its surveillance equipment is integrated with the surveillance equipment of the command center. For example, CCTV cameras, plate number identification, face recognition, and other AI traffic surveillance technology that can detect violations, accidents, and congestion; automated traffic management scenario (blockage and diversion) to maintain the smooth flow of traffic and deal with emergency situations (emergency routing) (facilitating the movement of emergency teams, such as the police, firefighter, or ambulance by providing an alternative route based on the most current traffic). The modern, *Secure, Safe, Orderly, and Smooth* Flowing Traffic System is supported by:

1. Security and safety center. Security and safety center is an inter-stakeholder integrated traffic system that aims at promoting traffic safety through the mapping of accident- prone spots (black spots) and traffic accident and violation data collection system. The system's component will be supported by investigation e-management (for criminal acts), electronic traffic law enforcement/ETLE (for violations), speed management system, and traffic accident early warning system (TAEW).
2. Electronic registration and identification (ERI). ERI is an electronic motor vehicle registration and identification data collection system. ERI is the database for police traffic administration services, such as

the issuance and renewal of driver's license (*Surat Ijin Mengemudi*, SIM), Vehicle Registration Certificate (*Surat Tanda Nomor Kendaraan*, STNK), and Proof of Motor Vehicle Ownership (*Buku Pemilik Kendaraan Bermotor*, BPKB). In addition, the ERI database can also be used for investigation purposes, city surveillance, identification of the identity of past violators, management of violation points, etc. Furthermore, the ERI database will also be part of the smart security big data command center which also requires external data components, such as residency data, vehicle tax data or ETLE data.

3. Intelligent traffic analysis system (INTAN) is *kamseltibcarlantas* information, communication, and solution system designed to produce various alternative decisions in solving problems in the traffic sector and services, such as traffic diversion, road opening and closure, and alternative routes for emergency situations. INTAN operations need to be supported by technology and human resources capable of big data mining. INTAN program consists of (1) an information system that contains information on traffic density, alternative roads, situations and conditions; (2) interests, travel time, solutions and emergency (3) a communication system; (4) an officer and stakeholder deployment system between the back office and residents, road users, officers, and anyone else in the field; (5) a control command system, namely the quick response time (QRT) and ring system; (6) coordination system; and (7) an integrated services across regions, functions and stakeholders.
4. Traffic Attitude Record (TAR) is a traffic violation point management system. In this system, drivers who have reached a certain maximum point will lose their right to drive (revocation of driver's license). The system is expected to improve road safety and traffic culture.
5. Safety driving center (SDC) is a traffic safety education and training center. SDC is aimed at improving the quality of drivers' road driving abilities and skills, so that an orderly traffic culture can be developed and improved driving safety can be realized. It is highly expected that SDC will be built in the same area and integrated with the Integrated Police Service Center building because it will be used in the testing system required for obtaining a driver's license or for a driver to regain his driving rights.

c. Modern City Security System

A modern city security system is a city security system procedure that aims to provide clarity and guidelines for police personnel, related agencies, and supporting units in overcoming security and social security disturbances. The procedures regulated in the city security system include a contingency security pattern in the event of a change in the public order and security situation in the IKN area. The disturbances referred to include social conflicts, anarchist mass riots, forced occupation of state symbols, state institutions, foreign representatives, and other critical infrastructure of IKN, natural or non-natural disasters (disaster and post-disaster response situations), and terrorism.

The procedures, mechanisms, and conducts of actions in those situations at IKN will be regulated in a separate document. However, in general the IKN city security system will be reinforced by the IKN smart security support system and become part of the operational implementation of the smart security system itself. The procedures in IKN city security system will utilize big data, AI, and the internet of things so that alternative handling and decisions made in action can be more measured and consider various types of losses rather than making decisions manually. In addition, the IKN city security system that utilizes this security system support will also increase the speed of response, both in decision making and in deploying personnel/troops. All relevant stakeholders will be connected to the existing system and the coordination will be carried out more easily with the help of the system.

The security system support that will play a major role in the IKN city security system is surveillance technology, especially smart video analysis to predict crowd volume, detect suspicious movements, detect dangerous/prohibited materials/goods brought in by people in a crowd, recognize faces, display alternatives/follow-up suggestions that need to be done by the police and related stakeholders, as well as other systems that can support city security.

d. Integrated Police Service

An integrated police service is one of the main components of a smart security system in police services that can be felt by the community directly in everyday life.

So far, the National Police (Polri) has an integrated police service center facility (*sentra pelayanan kepolisian terpadu*,SPKT) which is the front porch of police services. SPKT services include police reports (*laporan polisi*, LP), police report receipts (*surat tanda terima laporan polisi*, STTPLP), notification letters on the progress of investigations (*surat pemberitahuan perkembangan hasil penyidikan*, SP2HP), loss report certificates (*surat keterangan tanda lapor kehilangan*, SKTLK), police records certificates (*surat keterangan catatan kepolisian*, SKCK), notification receipts (*surat tanda terima pemberitahuan*, STTP), self-report certificate (*surat keterangan lapor diri*, SKLD), crowd permits, recommendation letters for observation service business license, driving license (*surat izin mengemudi*, SIM), and motorized vehicle registration certificate (*surat tanda nomor kendaraan bermotor*, STNK). In addition, the SPKT also functions to coordinate and provide assistance and help (TKP [place of incident] handling, *turjawali* [regulating, guarding, escorting, and patrolling] and security), provide community services through various media, as well as present general information related to the interests of the community. Therefore, the implementation of integrated police services as part of IKN's smart security system will be carried out with the aim of maximizing community satisfaction in obtaining all of the above service components.

There are two integrated police service models that will be available at IKN. *First*, services at the integrated police service center building which are carried out face-to-face. *Second*, services on integrated police service applications that can be accessed on-line. The short- and medium-term targets that will be the focus of the integrated police service at IKN include:

1) data flow/full integration of all data needed in the service (there are some services that can be done completely without a face-to-face meeting with an officer);
2) punctuality of service as agreed upon commitments;
3) no illegal fees;
4) smooth and easy access to services or information related to services;
5) provision of features/information for the public to know the status/progress of documents being submitted; and
6) provision of safe features/mechanisms for the public to report dissatisfaction/irregularities that occur as well as follow-up on the report that can be accessed by the reporter

To support this, integrated police services on IKN smart security system will be supported by easier mechanisms, big data, monitoring center/SOC (security operation center) and CSIRT (computer security incident response team) that work 7x24 hours to overcome various problems in the system, human resources that are humane and have service competency, an application that has a user interface/user experience that is easy to use for various groups/age, a team of assessment and coordination tasked with improving the experience/satisfaction of the community in receiving services, as well as a service building that is appropriate and friendly to children and disabilities.

e. Surveillance

The surveillance system on IKN intelligent security system can be categorized as the front line of the system in detecting violations, crimes, and public order and security disturbances at IKN. Almost all components of IKN intelligent security system depend on the surveillance system. The system support for IKN surveillance system may consist of the following:

1. CCTV: intended for people sensing and tracking big data by the police so that they can match biometrics with digital identities.
2. Drones: used to search for suspects, obtain information and survey disaster areas without using helicopters or airplanes.
3. Body camera: used as a portable camera, it has various features that can support police activities in the field, ranging from functioning as a recording device, communication tool, global positioning system (GPS), or infrared to support activities at night.
4. Robot camera: specially designed to be placed in a potentially dangerous and risky place and cannot be reached by officers.

5. Automatic number plate recognition system: used to detect criminals using vehicles that are integrated with ERI database. This technology is able to recognize car number plates, vehicle owners, addresses, and vehicle status to make it easier for officers at the nearest location in the vicinity of a suspicious vehicle based on data received.
6. Patrol camera: used to identify the four sides of the police patrol vehicle for scanning in order to identify a suspicious vehicle or person being tracked based on the order and authorization from the command center
7. Face recognition: used to recognize faces through biometric processing. Face recognition includes face detection and masked face identification.
8. Video analytics: used to help digital data analysing for suspicious activity and instruct security measures.

f. Community and Partner Engagement

The IKN intelligent security cannot be applied by developing technology and infrastructure only. The smart security system needs to be supported with the cooperation and engagement of the community and various parties. The goals are to (i) increase public trust in the police through creative communication and collaboration among community groups, business groups, and the government; (ii) conduct early intervention by collaborating with community groups to prevent and reduce the escalation of public order disturbances; and (iii) strengthen community resilience, especially for vulnerable groups, through security initiatives.

The main tasks of this system component are in the form of pre-emptive, preventive, and proactive strategies in preventing crimes. In general, this system can be divided into two components of activity, namely neighborhood watch and collaboration with the community and government. The form of cooperation or strategies may take the form of developing innovative strategies in disseminating information and fostering community participation; using social media as a source of real time information in identifying police service strategies needed by the community; collaborating with various parties to support various community events; collaborating to prevent and reduce recidivism, preventing repeated victimization, and protecting vulnerable groups; providing support in crime detection and prevention strategies against women and children; providing support for community- established security and safety program initiatives; and collaborating with various government sectors related to crime prevention.

Security in the implementation of smart cities is an effort to protect data and information in government. Infrastructure security and information security are seriously considered in the implementation of smart cities because they will maximize government services. In implementing cyber security, there are several main principles that underlie the cyber security conceptual framework, which are as follows:

1) Confidentiality: prevention of disclosure of information to parties who do not have rights to the information;
2) Integrity: prevention of alteration of information by parties who do not have the authority to change the information;
3) Authentication: information must be available when needed;
4) Availability: information must be available when needed; and
5) Non-deniability: the parties involved cannot deny it in the future.

These principles are then translated into a cyber security framework. The concept refers to NIST cyber security framework that describes the five functions in the cyber security cycle, identify, protect, detect, respond, and recover. The definitions for each function are as follows:

a. *Identify* is to develop an organizational understanding to manage cyber security risks to systems, assets, data and capabilities.
b. *Protect* is to develop and implement appropriate safeguards to ensure the delivery of critical infrastructure services.
c. *Detect* is to develop and implement appropriate activities to identify the occurrence of security events.
d. *Respond* is to develop and implement appropriate activities when faced with detected security events.
e. *Recover* is to develop and implement appropriate activities for resilience purposes and to recover any capability or any service subject to disturbances due to such security events.

I.2 IKN Defense Spatial Planning

The development of IKN defense spatial plan is directed at strengthening the integrated state defense and security system so that it is able to face threats, and support the security of the state border area, maritime area, land area, and aerospace area including disaster mitigation. The development is carried out in an integrated manner between elements of the government and local government through national/regional spatial planning with regional spatial planning in order to create a formidable defense space. Structuring the defense area is the determination of the defense area based on a defense area plan, the utilization of the defense area, and controlling the utilization of the defense area. The IKN development plan is in the form of urban planning along with zoning for the placement of government buildings, including aspects of defense and security, which are connected to public networks and facilities such as transportation, energy, telecommunications, drinking water, and sanitation.

CHAPTER IV

THE NATIONAL CAPITAL DEVELOPMENT STAGING PLAN AND FUNDING SCHEME

A. IKN Development Stages

The staging process considers the development goals and all necessary processes, including the readiness of the location and the resources needed for IKN development. In general, the increase in IKN population is concentrated in KIKN. Based on the IKN timeline, the IKN development period begins in 2022 and is in the long-term IKN planning period, which is projected up to 2045. Broadly speaking, the development is divided into five stages, as follows:

a. Stage 1 (2022-2024)

b. Stage 2 (2025-2029)

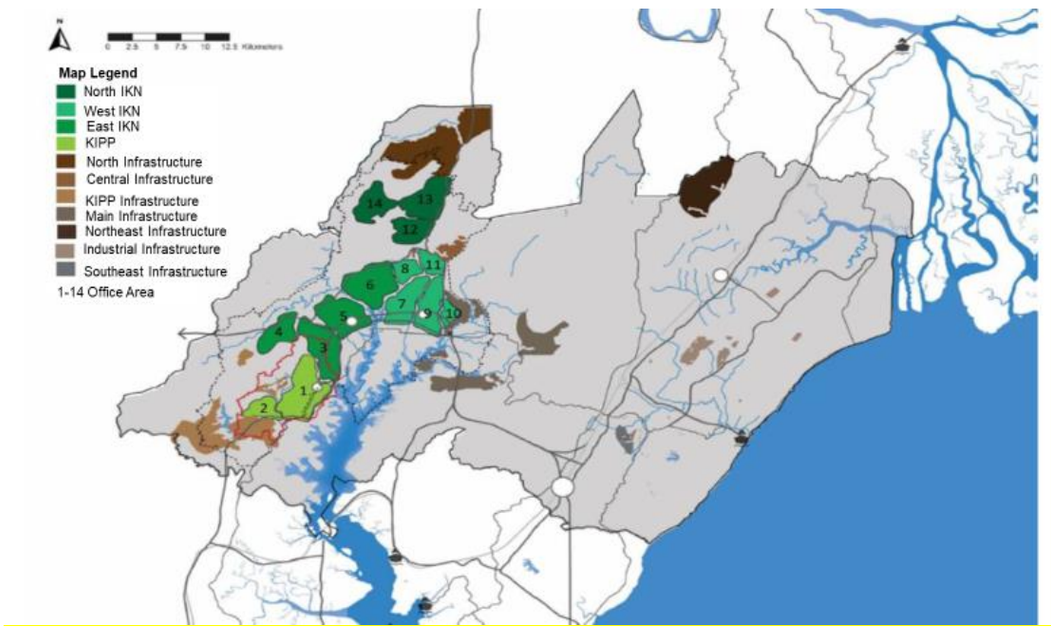
c. Stage 3 (2030-2034)

d. Stage 4 (2035-2039)

e. Stage 5 (2040-2045)

Based on the analysis of economic activities, the population number as a consequence of these economic activities is projected to continue to increase from the beginning of the planning year until 2045. In Stages 1 and 2, this increase occurs exponentially in line with the opening of areas in KIKN and with the scheme of transferring state civil apparatuses to KIKN. In Stage 3 the population is projected to slow down, then increase again in Stage 4 and Stage 5 when all new economic sector activities begin to develop. The Stages in the development of the IKN are structured to describe the short-, medium- and long-term development to achieve Indonesia Vision 2045.

Figure 4-1 Regional Division Map



Source: Ministry of National Development Planning/Bappenas, 2020

The staging of development in KIKN is structured so that regional development, infrastructure, and mass public transportation networks can run in a sustainable and integrated manner. The development of each urban area is directed so that KIKN develops into a compact and efficient city. Primary infrastructure development starts before the pioneer population relocates. Population migration begins with the relocation of the defense sector in Stage 1 of the transfer of IKN status. IKN infrastructure will serve this area at the end of Stage 1 when the transfer of IKN status is carried out.

To meet the needs of the population, by the end of Stage 1, the Sepaku Semoi Reservoir and the Sepaku River Intake will be operational to meet the rapidly increasing demand for raw water, the main urban macro drainage system, and waste and sewage treatment. The development of the mobility system in urban development at KIKN can be divided into four components, namely the main road, regional railway line, transit line 1, and transit line 2, which are a rail- based public transportation route. The main road is planned to be built starting in 2023 and completed in 2035. Regional train stations at KIPP are built and will be followed by regional train stations at IKN West and IKN East as KIKN develops and the population number increases. Infrastructure development in Stage 1 is also directed to be a catalyst for attracting investment and superior talent that will support the development of economic clusters starting in 2025 (Stage 2). The stages of IKN development are described as follows:

Table 4-1 IKN Relocation and Development Staging Plan

Aspect	STAGE 1 (2022-2024)	STAGE 2 (2025-2029)	STAGE 3 (2030-2034)	STAGE 4 (2035-2039)	STAGE 5 (2040-2045)
Characteristics of the Population	1) State Civil Apparatuses (ASN) of M /I; 2) TNI (Indonesian National Armed Forces) /Polri (Indonesian National Police / BIN (State Intelligence Agency) planned to be relocated first (T-1); 3) Family members of the ASN, TNI, Polri and BIN; 4) Workforce 5) (construction,trading, accommodation-food and drink and services) and	1) State Civil Apparatuses (ASN) of M / I; 2) Family members of the ASN, TNI, Polri and BIN; 3) Investors/ entrepreneurs; 4) Workforce (construction, economic cluster,trading, accommodation-food and drink and services) and their family members; 5) Academics, researchers, and their family members; 6) University	1) State Civil Apparatuses (ASN) of M / I; 2) Family members of the ASN, TNI, Polri and BIN; 3) Investors/ entrepreneurs; 4) Workforce (construction, economic cluster, trading, accommodation-food and drink and services) and their family members; 5) Academics, researchers, and their family members; 6) University	1) State Civil Apparatuses (ASN) of M / I; 2) Family membersof the ASN, TNI,Polri and BIN; 3) Investors/ entrepreneurs; 4) Workforce (construction, economic cluster, trading, accommodation -food and drink and services) and their family members; 5) Academics, researchers, andtheir family members;	1) State Civil Apparatuses (ASN) of M / I; 2) Family members of the ASN, TNI, Polri and BIN; 3) Investors/ entrepreneurs; 4) Workforce (construction, economic cluster, trading, accommodation-food and drink and services) and their family members; Academics, researchers, and their family members; 5) University

	their family members; 6) Local residents;	students; 7) Local residents	students; 7) Local residents	6) University students; 7) Local residents	students; 6) Local residents
Social	1) Settlement of overlapping land title issues, construction of public facilities ("adat (customary)" halls, public spaces), engagement of local communities and stakeholders in the process of identifying cultural heritage assets, local community capacity building and economic opportunities for the vulnerable group, community engagement in watershed area management; 2) Capacity building for local educational institutions to prepare skilled local workforce to meet investors interest in economic clusters and development of world-class educational and research institutes.			1) Strengthening the sociocultural resilience of communities, development of IKN in conformity with the spatial plan, green and sustainable economy policy development for new sectors; 2) Improving the capacity and competitiveness of world-class education and research institutes	
Infrastructure and the Environment	1) Partial construction of the toll roads to support IKN; 2) Development of TPST, Management of Garbage and B3	1) Construction of a VVIP Airport; 2) Increasing installed capacity of Sepaku Semoi Dam and Sepaku River Intake; 3) IPAL to serve the	1) Construction of a mass public transportation system in IKKN; 2) IPAL located in the central infrastructure area with a	1) Construction of Regional KA supporting IKN; 2) Expansion of IPAL located in the central infrastructure areawith a	1) Provision of infrastructure and transportation facilities has reached the final stages; 2) Development of

	Waste, Settling Ponds, SPAM in part of KIPP Stage I; 3) Electricity provision facilities are ready to serve KIKN residents; 4) Sepaku Semoi Dam, Sepaku River Intake, and standard water transmission network; 5) Urban main macro drainage systems; 6) Construction of TIK Infrastructure: Telecommunication Main Network, BTS, interconnection	operational existing territory; 4) Development of an integrated data center to support city management services (governance, public, and business) or a smart city backbone; 5) Additional urban amenities (secondary and tertiary services) to support public activities, for work, business and city tourism	capacity of 50%; 3) IPAB located in the central infrastructure area with a capacity of 50%; 4) The Batu Lepek Dam is already operating at this stage; 5) Detention areas in areas developed and construction of rain water harvesting facilities in government-owned buildings; 6) Additional digital and urban amenities for the smart city solution	capacity of 100%; 3) Increasing the existing capacity and providing additional facilities in the northeast area and Solar Farm in the north IKN area; 4) Identification of potentials and designs for other multipurpose dams; 5) Additional digital and urban amenities for the smart city solution application in KIKN.	other multipurpose dam potentials; 3) Additional digital an urban amenities for the smart city solution application in IKN.

	network and High Voltage Transmission network; 7) Facilities for religious worship, education, health/fitness, trade, accommodation, food, and drink to support offices and housing		application in prioritized areas.		
Territory Development	Stages of city development Stage 1 (2024) in: 1. Some parts of KIPPstage 1 A Sub-BWP1 Mixed-Use Zone with the following typologies:	Stages of city development – Stage I(2029) in 3 territories: 1) KIPP Stage 1A, some parts at 1B Sub-BWP I; 2) West IKN Territory; 3) East IKN	Stages of city development – Stage 3 in 3 territories: 1) KIPP stage 1 B, some partsat stage 2 A Sub-BWP II; 2) West IKN Territory;	Stages of city development – Stage 4 (2024) in 4 territories: 1) KIPP stage 2A, and some parts at stage 2B sub-BWP II; 2) West IKN	Stages of city development – Stage 5 in 4 territories: 1) KIPP stage 2B sub-BWP II, stage 3A and 3B sub-BWP III; 2) West IKN

	1) The Center of Governance Activities; 2) Smart Government; 3) Office Territory; 4) Territory Residential/ Settlement Territory	Territory The Mixed-Use Zonewith the following typologies: 1) The Center of Governance Activities; 2) Smart Government; 3) Office territory-Extension; 4) Business territory-extension; 5) Business Hotel and MICE-Extension; 6) Industry 4.0 Center of Excellence-	3) East IKN Territory; The Mixed-Use Zonewith the following typologies: 1) The Center of Governance Activities; 2) Smart Government; 3) Office territory–Extension; 4) Business territory – extension; 5) Business Hotel and MICE-Extension; 6) Industry 4.0 Center of Excellence – Extension;	Territory; 3) East IKN Territory; 4) North IKN Territory The Mixed-Use Zone with the following typologies: 1) The Center of Governance Activities; 2) Smart Government; 3) Office territory Extension; 4) Business territory–extension; 5) Business Hotel and MICE-Extension; 6) Industry 4.0	Territory; 3) East IKN Territory; 4) North IKN Territory The Mixed-Use Zonewith the following typologies: 1) The Center of Governance Activities; 2) Smart Government; 3) Office territory-Extension; 4) Business territory–extension; 5) Business Hotel and MICE

		Extension; 7) Research and development of talents; 8) Featured universities-Extension; 9) Health and fitness tourism (international hospital)-Extension 10) Hotels & Eco Resorts 11) Industrial territories.	7) Research and development of talents; 8) Featured universities; 9) Health and fitness tourism (international hospital) 10) Hotels and Eco Resorts-Extension; 11) Industrial territories.	Center of Excellence-Extension; 7) Research and development of talents; 8) Featured universities; 9) Health and fitness tourism (international hospital); 10) Hotels and Eco Resorts; 11) Industrial territories	Extension; 6) Industry 4.0 Center of Excellence – Extension; 7) Research and development of talents; 8) Featured universities; 9) Health and fitness tourism (international hospital); 10) Hotels and Eco Resorts; 11) Industrial territories.
Industrial Development and Economic Growth Center in KIKN and	1) Governance; 2) Induced Governance	1) Governance – Extension; 2) Induced Governance – Extension;	1) Governance Extension; 2) Induced Governance – Extension;	1) Governance – Extension; 2) Induced Governance – Extension;	1) Governance – Extension; 2) Induced Governance – Extension;

other territories		3) Electric 2-Wheeler (office and research and development); 4) Solar PV (office and research and development); 5) Ecotourism and MICE; 6) Industry 4.0 Center of Excellence; 7) Biosimilar (office and research and development); 8) Biofuel (office and research and development); 9) API (office and research and	3) Electric 2-Wheeler (office and research and development) – Extension; 4) Solar PV (office and research and development) - Extension; 5) Ecotourism andMICE-Extension; 6) Industry 4.0 Center of Excellence-Extension; 7) Biosimilar (officeand research and development) – Extension; 8) Biofuel (office	3) Electric 2-Wheeler (office and research and development) – Extension; 4) Solar Panel (officeand research and development) - Extension; 5) Ecotourism andMICE– Extension; 6) Industry 4.0 Center of Excellence-Extension; 7) Biosimilar (office and research and development) –Extension; 8) Biofuel (office	3) Electric 2-Wheeler (office and research and development) – Extension; 4) Solar Panel (office and research and development) - Extension; 5) Ecotourism and MICE-Extension; 6) Industry 4.0 Center of Excellence-Extension; 7) Biosimilar (officeand research and development) – Extension; 8) Biofuel (office

		development); 10) Petrochemical –Extension and Oleochemical; 11) Herbal and plant extract (office and research and development); 12) Agriculture (office and research and development); 13) Vegetable protein(office and research and development); 14) Health and fitnesstourism (international hospital); 15) Featured universities and	and research and development) - Extension; 9) Petrochemical –Extension and Oleochemical Extension; 10) API (office and research and development) – Extension; 11) Herbal and plant extract (office and research and development) – Extension; 12) Agriculture (office and research and development) – Extension;	and research and development) - Extension; 9) API (office and research and development)– Extension; 10) New pharmaceutical industry– Extension from API and Petrochemical/ Oleochemical 11) Synthetic fuel (office and research and development) 12) Herbal and plantextract (office and research and development) –	and research and development) - Extension; 9) API (office and research and development)- Extension; 10) New pharmaceutic al industry- Extension fromAPI 11) New pharmaceutic al industry- Extension fromAPI and Petrochemical/ Oleochemical 12) Synthetic fuel (office and research and development)

		vocational institutions;Mining I.4.0.	13) Vegetable protein(office and research and development)- Extension; 14) Health and fitnesstourism (international hospital)– Extension; 15) Featured universities and vocational institutions- Extension; 16) Vaccine (office and research and development); 17) Gasification of coal; 18) OEM Hub and	Extension; 13) Agriculture (office and research and development) – Extension; 14) Vegetable protein (office and research and development) – Extension; 15) Health and fitnesstourism (international hospital)- Extension; 16) Featured universities and vocational institutions- Extension; 17) Vaccine (office	13) Herbal and plantextract (office and research and development) – Extension; 14) Agriculture (office and research and development) – Extension; 15) Vegetable protein(office and research and development)- Extension; 16) Health and fitnesstourism (international hospital) –Extension; 17) Featured

			Extension; 19) Mining I.4.0 - Extension;	and research and development); 18) Gasification of coal; 19) OEM Hub and Extension; 20) Nutrition industry- Extension from vegetable protein, herbal and plant extract;	Universities andvocational institutions- Extension; 18) Vaccine (office and research and development); 19) Gasification of coal; 20) OEM Hub and Extension; 21) Nutrition industry – Extension from vegetable protein, herbal and plant Extract.
Defense	Development focus on KIPP Indonesian Army: 1) Formation of a	Development focus on KIPP, KIKN, KPIKN, and outside the	Development focus on KIPP, KIKN, KPIKN, and outside the	Development focus on KIKN, KPIKN, and outside KPIKN	Development focus on KIKN, KPIKN, and outside KPIKN

	new units; 2) Office building and infrastructure; 3) Partial displacement headquarters sub along with personnel Indonesian Navy: 1) Office building and sarpras; 2) Partial displacement headquarters sub along with personnel Indonesian Air Force: 1) Office building and sarpras; 2) Partial	KPIKN Indonesian Army: 1) Formation of a new units; 2) Office building and infrastructure; 3) Establishment special commanding officer (surface and below the surface); 4) Unit reallocation Indonesian National Armed Forces (TNI) Indonesian Navy: 1) Establishment	KPIKN Indonesian Army: 1) Formation of a new units; 2) Office building and infrastructure; 3) Establishment special commanding officer; 4) Unit reallocation Indonesian National Armed Forces (TNI) Indonesian Navy: 1) Establishment new unit; 2) Office building and sarpras;	Indonesian Army: 1) Formation of a new units; 2) Office building and infrastructure; 3) Formation of the regional command special; 4) Unit Reallocation of Indonesian National Armed Forces (TNI) Indonesian Navy: 1) Formation of units new; 2) Office building and sarpras; 3) Coastal degree	Indonesian Army: 1) Formation of a new units; 2) Office building and infrastructure; 3) Formation of the regional command special; 4) Unit Reallocation of Indonesian National Armed Forces (TNI) Indonesian Navy: 1) Formation of units new; 2) Office building and sarpras; 3) Coastal degree

	displacement headquarters sub along with personnel; 3) Development Defense Command National Air (Hanudnas) Indonesian National Armed Forcesheadquarters : 1) Office building and sarpras; 2) Partial displacement headquarters sub along with personnel; 3) Unit Relocation Paspamres Ministry	new unit; 2) Office building and sarpras; 3) Coastal degree surveillance (surface and subsurface); 4) Unit reallocation Indonesian National Armed Forces (TNI) Indonesian Air Force: 1) Establishment new unit; 2) Office building and sarpras; 3) Reallocation of the Indonesian Air Force; 4) Development	3) Coastal degree surveillance (surface and subsurface); 4) Unit reallocation Indonesian National Armed Forces (TNI) Indonesian Air Force: 1) Establishment new unit; 2) Office building and sarpras; 3) Reallocation of the Indonesian Air Force; 4) Development airbase Indonesian	surveillance (surface and subsurface); 4) Unit reallocation Indonesian National Armed Forces (TNI) Indonesian Air Force: 1) Formation of units new; 2) Office building and sarpras; 3) Reallocation of the Indonesian Air Force; 4) Development airbase Indonesian	surveillance (surface and subsurface); 4) Unit reallocation Indonesian National Armed Forces (TNI) Indonesian Air Force: 1) Formation of units new; 2) Office building and sarpras; 3) Reallocation of the Indonesian Air Force; 4) Development airbase Indonesian

	Defense: 1) Office building and sarpras; 2) Transfer of employees Police: 1) Formation of units new; 2) Building, office, system, and sarpras; 3) Degree command center and smart security; 4) Partial displacement head office personnel State Intelligence Agency	airbase Indonesian National Armed Forcesheadquarters: 1) Office building and sarpras; 2) Reallocation units/transfers employee Ministry of Defence: 1) Office building and sarpras; 2) Reallocation units/transfers employee Police: 1) Establishment new unit; 2) Building,	National Armed Forcesheadquarters: 1) Office building and sarpras; 2) Reallocation units/transfers employee Ministry of Defence: 1) Office building and sarpras; 2) Reallocation units/transfers employee Police: 1) Establishment new unit; 2) Building, office, system, and sarpras; 3) Degree	National Armed Forcesheadquarters: 1) Office building and sarpras; 2) Reallocation units/transfers employee Ministry of Defence: 1) Office building and sarpras; 2) Reallocation of employee transfer units Police: 1) Formation of units new; 2) Building, office, system,	National Armed Forcesheadquarters: 1) Office building and sarpras; 2) Reallocation units/transfers employee Ministry of Defence: 1) Office building and sarpras; 2) Reallocation units/transfers employee Police: 1) Formation of units new; 2) Buildings, offices, systems, and

	1) Building, office, system, and sarpras; 2) Development Puskodal; 3) Partial displacement Personnel State Cyber and Code Agency 1) Development of SOC IKN; 2) Partial displacement personnel	office, system, and sarpras; 3) Degree command center and smart security; 4) Employee relocation State Intelligence Agency 1) Building, office, system, and sarpras; 2) Displacement some personnel State Cyber and Code Agency 1) IKN SOC	command center and smart security; 4) Relocation of employees State Intelligence Agency 1) Building, office, system, and sarpras; 2) Displacement some personnel State Cyber and Code Agency 1) IKN SOC	and sarpras; 3) Degree command center and smart security; 4) Relocation of employees State Intelligence Agency 1) Building, office, system, and sarpras; 2) Partial displacement Personnel State Cyber and Code Agency 1) IKN SOC	infrastructure; 3) Command center title and smart security; 4) Relocation of employees State Intelligence Agency 1) Buildings, offices, systems, and infrastructure; 2) Partial displacement Personnel State Cyber and Code Agency 1) IKN SOC

Source: Ministry of National Development Planning/National Development Planning Agency, 2020

A.1 Stage 1: IKN Development Plan for 2022-2024

The implementation of IKN's Stage 1 development is divided into three major workflows, namely urban, infrastructure, and economic development. The urban development workflow consists of activities related to urban planning and governance relocation.

In 2022-2023, the initial stage of construction will be carried out in part of Stage 1A KIPP Sub- BPW 1. In Stage 1, housing for ASN, TNI, Polri and BIN will be built, both in the form of landed houses and apartment units. Worship facilities, markets, and accommodation, food and drink facilities will also be provided to support construction and the initial stage of relocation. In early 2023, early 2024, until 2025 and the following year, the construction of research and development facilities, world-class universities, lifelong educational institutions, innovation centers, health facilities, and international hospitals will begin. The relocation of the population will begin with TNI, Polri, and BIN in 2023 (relocation of the forerunners). Meanwhile, the relocation of representatives of the executive, legislative, judicial representatives, and the ASN will be carried out in early 2024. Stage 1 is completed when the ASN transfer begins. Prior to this completed, IKN will be dominated by construction and security workers, especially in KIKN.

A.2 Stage 2: IKN Development Plan for 2025-2029

Stage 2 is planned for the period of 2025-2029. At this stage, the main infrastructure is targeted to be ready to be connected to the new territory zone developed after Stage 1. In addition, to achieve the 10-minute city KPI, public transportation facilities, both primary and secondary, are targeted to be ready for use in areas inhabited by IKN residents. At the final development stage, there will be a sharp increase in the number of residents in IKN coinciding with the early stages of development of top universities that trigger the development of research and technology-based economic activities in the period from 2035 to 2045.

At the end of Stage 2, KIPP is targeted to be developed in Stage 1A and part of 1B Sub-BPW 1, the Western IKN will have started development in the Bukit Raya area, while the Eastern IKN will have started on the west side. The development plan up to the milestone of Stage 2 will cover the aspect of transportation infrastructure, namely the construction of the VVIP Airport, which needs to be supported by the development of infrastructure facilities around the main mass public transportation routes.

In Stage 2 (and continued in Stage 3), the economic development plan made includes six (6) industrial clusters and two (2) enablers consisting of the following:

a. the sustainable agriculture industry cluster will focus on attracting companies and industry players to establish a manufacturing base,

research and development facilities, and downstreaming local resources, and as well as developing new products with high added value;

b. the new renewable energy (EBT)-based manufacturing cluster will focus on attracting pioneering industries, both state-owned enterprises (SOEs) and international companies, to build assembly plants to serve demand in KIKN and Eastern Indonesia Territory;
c. the integrated pharmacy cluster will focus on increasing the availability of medicinal raw materials and advanced pharmaceutical products;
d. the ecotourism and health tourism cluster will focus on developing tourism destinations in coastal areas, wildlife parks, and urban areas that are integrated with lifestyle and health, as well as on developing MICE standard hotels;
e. the advanced chemical cluster will focus on exploring the potential to build a new petrochemical plant planned to start production in 2030 while continuously monitoring the global supply-demand chain across all product categories;
f. the low-carbon energy and mining clusters will focus on expanding upstream activities (energy production), attracting investment for exploration activities, and utilizing enhanced oil recovery (EOR) technology to increase production from old oil fields, as well as developing biofuel;
g. the smart city and digital centers will be initiated with the development of the industry 4.0 concept for various existing sectors, especially the existing sectors in IKN; and
h. twenty-first century education quality improvement in secondary schools, vocational schools, and universities to meet the needs of developing talent strategies in the economic and industrial sectors that will be developed at IKN.

A.3 Stage 3: IKN Development Plan for 2030-2034

In Stage 3, the targeted KIPP is Stage 1B Sub-BPW 1. Meanwhile, the following territory infrastructure will be prepared:

a. Mass public transport system at KIKN.
b. Wastewater Treatment Plant (IPAL).
c. At this milestone, a drinking water treatment plant (IPAM) is built, located in the central infrastructure area with a capacity of 50% of the overall planning and an expanding IPAM with a capacity of about 60% of the overall planning.
d. IPAM.
   At this milestone, IPAM was built and located in the central infrastructure area with a capacity of 50% of the overall planning and expansion of IPAB with about 60% capacity of the plan.
e. Batu Lepek Reservoir is operational.
f. Sponge city supporting facilities.
   Detention areas (green and blue corridors) in built areas, and construction of rainwater harvesting facilities in government-owned buildings, including ASN settlement areas.

g. Waste Processing Facilities.
   The Capacity of existing facilities is increased.
h. Provision of Electricity and Energy Provision.
i. The Capacity of existing facilities is increased and the number of facilities in the south-eastern and northern areas of KIKN is added.

In 2030-2034, industrial development and economic growth centers, as elaborated in the previous stage, will be emphasized at the industrial development stage and continued with the following plans:

a. the sustainable agriculture industry cluster will focus on attracting companies and industry players to establish a manufacturing base, research and development facility and on increasing existing sustainable production;
b. the EBT-based manufacturing cluster will focus on attracting pioneering industries, both SOEs and international, to build solar panel assembly plants and electric vehicles to meet demands in KIKN and Eastern Indonesia;
c. the integrated pharmaceutical cluster will focus on increasing existing production to capture the export market and expanding into primary and secondary packaging fields;
d. the ecotourism and health tourism cluster will focus on developing tourism destinations in coastal areas, wildlife parks, and urban areas that are integrated with lifestyle and health, as well as the development of MICE standard hotels;
e. the advanced chemical cluster will focus on increasing production capacity and seizing export opportunities;
f. the low-carbon energy and mining cluster will focus on expanding the use of EOR technology to increase production from old oil fields, renew the oil refinery in Balikpapan, develop a coal gasification plant to reduce dependence on imports, expand downstream activities by developing an OEM center, and improve rehabilitation enhancements and technologies to reduce environmental impacts;
g. the smart city and digital centers will be initiated with the development of the industry 4.0 concept for various existing sectors, especially the existing sectors in IKN;
h. twenty-first century education—quality improvement of high schools, vocational schools, and universities to meet the needs of developing talent strategies in the economic and industrial sectors that will be developed at IKN.

A.4 Stage 4: IKN Development Plan for 2035-2039

Stage 4 is marked by the start of the rapid development in the fields of education and health which will become the driving force for other economic sectors in IKN. The expansion of urban areas at this stage will have reached Northern IKN, especially in areas that are directly connected to Eastern IKN.

Meanwhile, related to KIPP, the development to be carried out is Stage 2A and part ofStage 2B Sub-BWP II will be carried out.

The addition of infrastructure facilities in Stage 4 is as follows:

a. Regional railway development to support IKN.

   Regional train stations are targeted to be built and operational in order to encourage economic development.

b. Identification of potential and design of other multipurpose reservoirs.
c. IPAL.
d. Expansion of IPALs located in the central infrastructure area with a capacity of around 100%.
e. IPAM.
f. Provision of electricity and energy.
g. The capacity of existing facilities is increased and more facilities in the northeastern and a solar farm in the Northern IKN are added.

In Stage 4 (and continued in Stage 5), the economic development includes six (6) industrial clusters and two (2) enablers consisting of the following:

a. The sustainable agriculture industry cluster will focus on attracting companies and industry players to establish a sustainable manufacturing base, research and development and enhancement of existing production, as well as attracting industry players to invest in nutritional manufacturing.
b. The EBT-based manufacturing cluster will focus on expanding assembly plant capacity to serve wider demand supported by incentives for research and development capability development, and to attract new investments in E2W parts and components and solar panels.
c. The integrated pharmaceutical cluster will focus on increasing the availability of medicinal raw materials in the country, innovation of new chemical-based pharmaceutical products, domestic vaccine production, and increasing export markets.
d. The ecotourism and health tourism cluster will focus on diversifying tourist destinations in coastal areas, wildlife parks, and urban areas that are integrated with lifestyle and health, as well as developing MICE standard hotels.
e. The advanced chemical cluster will focus on exploring potential to attract specific chemical producers, opportunities to attract cross-sectoral petrochemical end users, export market opportunities for petrochemical products, adding refineries for vegetable oil production, adding oleo chemical plants and research and development.
f. The low-carbon energy and mining clusters will focus on expanding coal gasification to reduce dependence on imports, strengthen EOM centers, explore potential for biofuel development, enhance incremental rehabilitation and technologies to reduce environmental impacts.

g. Smart cities and digital centers begin with the development of the industrial 4.0 concept for various existing sectors, as well as the expansion of smart city technologies such as AI and others.
h. A twenty-first century education will focus on developing sector-specific colleges and global university campuses to world standards.

A.5 Stage 5: IKN Development Plan for 2040-2045

In Stage 5, IKN development will reach its peak marked by sustainable industrial development and stable population growth. The population of KIKN is stated to reach approximately 1.7 to 1.9 million people with an urban density of around 100 people per hectare.

In 2040-2045, the development of KIPP is targeted, among others, for Stage 2B Sub-BWP II, Stage 3A, and 3B Sub-BWP III with infrastructure development ~~is~~ being targeted to have been built entirely, both supporting infrastructure facilities, for the area and transportation corridors connecting activity centers. The industrial development in six (6) industrial clusters and two (2) enablers consists of the following:

a. The sustainable agriculture industry cluster will focus on research and development of newer protein formats, attracting investors to initiate expansion into nutraceutical ingredients.
b. The EBT-based manufacturing cluster will focus on research, development, and innovation on the exploration of next-generation technologies as well as end-to-end capabilities ~~for~~ in the production of solar panels and electric vehicles based on new technologies.
c. The integrated pharmaceutical cluster will focus on research and development as well as continuous innovation to expand export share and provide sufficient supply of raw materials and final products in the country.
d. The ecotourism and health tourism cluster will be focused on diversifying tourist destinations, innovating tourism services, and strengthening carrying capacity that will increase tourism competitiveness and sustainability.
e. The advanced chemicals cluster will be focused on exploring the potential to attract special chemical producers, opportunities to attract cross-sectoral petrochemical end users, exploring opportunities for export market for petrochemical products, extracting interest from chemical manufacturers specifically for pharmaceutical APIs and new pharmaceutical products.
f. The low-carbon energy and mining clusters will be focused on upgrading technologies to reduce environmental impacts and expanding the application of cutting-edge decarbonization technologies.
g. The smart city and digital centers will be initiated with the development of the industrial 4.0 concept for various existing sectors, as well as the expansion of smart city technologies such as AI and others.
h. The twenty-first century education will focus on developing sector-specific colleges and world-standard global university campuses.

After 2045, all six clusters will continue to be developed in terms of innovation and technology to meet domestic, regional or global production needs, as well as decrease exports and expand export share.

B. IKN Funding Scheme

In order to support the preparation, development, and relocation, as well as the administration of the special governance for IKN, the Government synergizes funding sourced from the State Budget (APBN) and other legal sources in conformity with the provisions of legislation.

This funding synergy is needed so that there is fiscal sustainability by undertaking various efforts, including optimizing the use of creative and innovative funding schemes while maintaining accountability.

The funding sources are as follows:

a. APBN which can be done through budget allocation and/or financing.

b. Public Private Partnership (PPP) to support IKN that can be done through several schemes including:
   1) PPP tariff (user payment):
      a) Return on investment in the form of user payments;
      b) Priority is given to the provision of infrastructure in IKN;
      c) In the event that it may be necessary to further ensure the acquisition of private financing (bankability), support can be provided from the APBN in the form of infrastructure guarantees, partial construction support, and/or *viability gap fund*;
   2) PPP availability payment;
      a) Return on investment in the form of availability payment;
      b) Priority is given to the provision of infrastructure in IKN;
      c) Sourced from the APBN through the expenditure of the person in charge of the cooperation project;
      d) In the event that it is necessary to ensure the feasibility of a project under the PPP availability payment scheme, support from the APBN can be provided in the form of infrastructure guarantees, partial construction support, and/or viability gap fund.

c. Participation schemes for business enterprises of which capital is wholly or partly owned by the state, including SOEs/pure private, include:
   1) SOE's through investment which in its implementation can cooperate with the private sector;
   2) SOE's through assignment from the government in accordance with the provisions of the legislation; and
   3) Pure private investment, through investment that can be given incentives in accordance with the provisions of legislation.

d. International funding/financing support scheme which ~~is~~ are a scheme to accommodate the provision of funds, among others, from bilateral/multilateral institutions that wish to participate in the

development of green and smart IKN, which can be through grants and/or the provision of advance payments.

e. Other creative financing schemes such as crowd funding and philanthropy funds.

In the framework of maximize the funding sources needed for the development and administration of IKN, funding sources can come from the use of State-Owned Assets (BMN), including through the following schemes:

a. rent:
   in the form of utilization of state-owned property that is carried out for a certain period of time in order to obtain compensation in the form of cash;
b. utilization cooperation;
   the government can provide land to be used, while for the construction and operation of the building or facilities being built will be carried out by the developer as a form of return on investment; and
c. build-operate-transfer (BOT)/ build-to-use -(BSG):
   This scheme is almost the same as the utilization cooperation procedure, with the transfer of assets being carried out directly after construction (a build-to-use scheme), or at the end of the operating period (a build-operate-transfer (BOT)).

In order to optimize the structure of cooperation to improve services, the implementation of the funding scheme can apply the pattern of financial management of public service agencies in accordance with the legislation. In addition, the provision of infrastructure can also use the method of procurement of goods and services in accordance with the provisions of the legislation, by taking into account the characteristics of IKN development and in accordance with good corporate governance.

In the framework of the sustainability of IKN development, the IKN development program is implemented as a national priority program in the national mid-term development plan and/or government work plan by considering the national fiscal sustainability. For this reason, it is necessary to allocate funding for national priority programs for the provision of basic infrastructure and KIPP of which development is carried out according to the targets set in Stage 2 and Stage 3, as described above.

PRESIDENT OF THE REPUBLIC OF INDONESIA,

Signed

JOKO WIDODO