Linking Natural Capital Accounting (NCA) into Indonesia National Development Plan 2020-2024

Dr. Medrilzam and Pak Farhan Helmy
Director for Environmental Affairs
Ministry of National Development Planning/
National Development Planning Board (BAPPENAS)

Regional SEEA workshop
29 November 2017
Preparation Schedule of National Development Plan 2020-2024:

2017
Initial Preparation

2018
Background Study of RPJMN

2019
Writing of RPJMN

2020
RPJMN approved by the selected President

MISSION:
DEVELOP THE NEXT INDONESIA DEVELOPMENT PLAN
BECOME GREENER AND LESS CARBON

HOW NCA COULD FIT IN INTO DEVELOPMENT PLANNING?
Low Carbon Development Plan will be Integrated into National Development Plan 2020-2024

“This is why our upcoming 5 year development plan, ... will be Indonesia’s first low-carbon development plan. We want to use this plan to address sustainability challenges and unlock some of these opportunities which will be critical to achieving a prosperous, low-carbon growth path. We want to ensure that our growth, moving forward, continues to secure our natural assets, providing value in tandem with the creation of new opportunities for economic transformation and development....”

(Prof. Bambang Brodjonegoro – Minister of National Development Planning, Bonn COP 23 UNFCCC, 2017);
Principles applied to LCD Planning for National Mid-Term National Plan 2020-2024:

1) Apply integrated and systemic approach among sectors – Evidence Based Policy
2) Put future carrying capacity (including GHG Emission) is part of priority concerns in development plan
3) Emphasise implication of various policies-planning-program Toward a balancing and trade-off between economy, poverty and environment goals
4) Apply HITS (Holistic, Integrated, Thematic, Spatial)
5) Involving development planners and environmental stakeholders
CONCEPTUALISATION OF LOW CARBON DEVELOPMENT PLAN

Inter-related Human Activities

- Energy and Mining
- Industries
- Agricultures
- Forestry
- Settlements
- Fishery, other sectors

Impacts/Pressures

- Assimilative capacity

Supportive Capacity

- (availability concept)

Carrying Capacity

- Water
- Emission
- Land cover
- Ocean
- Biodiversity

IKLH

Sectoral Target

- Green Economy
- Poverty

Policy Intervention

Trade off

*) NCA should provide necessary information on stock and flow of Natural Resource and Carrying Capacity being assessed
WHERE NCA FITS IN INTO LOW CARBON DEV’T PLAN 2020-2024 PROCESS?

Spatial Dynamics Analysis

 INTERFACE

Carrying Capacity

Policy/Planning/Programming in RPJMN 2020-2024

Green Growth and Low Carbon Development Plan

Investment Analysis

Econ. of Low Card. Dev (Indonesia Stern Review)

System Dynamics Model (Non-Spatial) (Sectors: Agriculture, Forest, Mining, etc.)

Database Centre Tabular (Statistics) dan Spatial

Natural Capital Stock-Flow

WAVES

MAPS

Green Economy

Poverty

System Dynamics Model

(Water, Agriculture, Forest, Mining, etc.)
Low Carbon Development System Model Structure for Dev Plan 2020-2024

- **Economics stock-flows**
- **Social stock-flows**
- **Natural resources stock and flows**
- **Absorptive capacity stock-flows**

Key Components:
- **ECONOMY**
- **LAND USE**
- **ENERGY**
- **POPULATION**
- **WATER**
- **FISHERY**
- **BIODIVERSITY**
- **CLIMATE**

**POVERTY**
- Usaha
- Distribusi Pendapatan
- Gara Kemiskinan
- Kemiskinan

**Dampak Hasil**
- Distribusi Pendapatan
- Gara Kemiskinan

**Indikator Hasil**
- Usaha
- Distribusi Pendapatan
- Gara Kemiskinan
- Kemiskinan

**ECONOMY**
- Perkembangan Ekonomi
- Ekspansi sumber energi
- Ketergantungan energi
- Impor Energi
- Urah EBT

**LAND USE**
- Lahan Hutan
- Lahan Pertanian
- Lahan Pertambangan dan Industri
- Lahan Lahanaya

**ENERGY**
- Perkembangan Energi
- Ekspansi sumber energi
- Ketergantungan energi
- Impor Energi
- Urah EBT

**WATER**
- Air Perawatan
- Air Sengketa
- Kualitas Air

**FISHERY**
- SD Perkiraan Tangkai
- SD Perkiraan Sosialisasi
- Produksi Perkiraan Budidaya

**BIODIVERSITY**
- Dampak Perubahan lahan terhadap Biodiversiti
- Dampak perubahan "Taman Hutan Raya"

**CLIMATE**
- GHG EMISSION

**POVERTY**
- Usaha
- Distribusi Pendapatan
- Gara Kemiskinan
- Kemiskinan

**Dampak Hasil**
- Distribusi Pendapatan
- Gara Kemiskinan

**Indikator Hasil**
- Usaha
- Distribusi Pendapatan
- Gara Kemiskinan
- Kemiskinan
Low Carbon Development modelling process requires Stock and flow information from NCA:

- **Land sectors**: Full Account
- **Water sectors**: Pilot Project
- **Energy**: Mineral Account only
- **Fishery**

**Notes:**
- Indonesia Statistics Agency (BPS) leads the development of NCA in Indonesia
- Development of the NCA should be based on the needs of policy and planning
- Strong collaboration is needed between WAVES consultant and modelling team
Model conceptualisation, integrated model and Database development

Integrated model structure and Policy simulations

Policy communications

SEA report for RPJMN 2020-2024

... It is a good timing for NCA to be applied..
But delayed NCA process cannot be tolerated..
The clock is ticking..... !!
Thank you....

Further contact:
Directorate for Environment Affairs
Email: medril@bappenas.go.id or Medrilzam.Medrilzam@gmail.com
Ph: +623900412 (Office), +62811802824 (Mobile)