Integration of Climate Change Adaptation and Mitigation into Development Plan

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COP23 Side Event-Japan Pavilion
Linkage between NDC and SDGs – synergies and trade-offs
9 November 2017
Failure to meet Paris target will threaten development goal.
It is important to integrate climate change adaptation and mitigation into development plan and programs ~ reduce loss and damages.
NDC Implementation Strategy

Policies for NDC Implementation Strategy

- Development of ownership and commitment
- Development of Communication network
- Development of enabling environment

Monitoring & evaluation

Strategic foundation indicators

Capacity Development

- Development of multi stakeholder forum
- Identification of capacities
- Implementation

NDC Action Plan

Integration into development plan

Guidance for implementation & Review

NDC Implementation

One data/map policy

Source: MoEF, 2016

SUSTAINABLE DEVELOPMENT
FRAMEWORK FOR LOW CARBON AND CLIMATE RESILIENCE DEVELOPMENT

- **Anthropogenic CC**: All climate stressors: Climate extreme events & slow onset
- **Potential impacts**
- **Adaptation and mitigation**
- **Tagging**
- **Development Plans**
  - Baseline Emission assessment
  - Emission Risk Assessment
- **Science based action planning**
  - Vulnerability assessment
  - Risk assessment
  - Risk retention
  - Risk transfer
  - Risk reduction
- **Short term**
- **Medium & Long term**
- **Residual impacts**: Loss and damage due to climate change
- **MONEV**
  - Reduced L&D
  - Increase resiliency
  - Reduced emission

**Source**: Boer et al. 2016

**Permen LHK 33/2016**

**Permen LHK 71/2017: SRN**

**Permen LHK 72 & 73/2016: GHGI**

**KLHS PP 46/2016**

**Ratification of PA: Act 16/2016**
Integration Process of CCA Plans into Regional Medium-Long Term Development Plan (RPJMD): Permen LHK No.33/2016

1: Risk
- Climate threat
- Vulnerability
- Risk Assessment
- Identification adaptation options
- Community base adaptation actions

2: Tagging
- Specific sectors
  - Food security
  - Energy security
  - Health
  - Settlement
  - Infrastructure
  - Coastal & small islands
- List of options
- Implementation of adaptation actions
- Prioritization of adaptation options
- Integration of CCA into Development Plan
- KLHS PP46/2016

3: Gap
- Implementation of adaptation actions
- Prioritization of adaptation options
- Compatibility development programs with Adaptation
- Compatibility Community initiatives with adaptation
- Inputs and response to adaptation options

4: KISS
- Adjustement, refinement, synchronization, synergism of development programs within and across sectors
- Implementers of adaptation actions

Specific sectors
- Food security
- Energy security
- Health
- Settlement
- Infrastructure
- Coastal & small islands

Integration Process of CCA Plans into Regional Medium-Long Term Development Plan (RPJMD): Permen LHK No.33/2016
Process Integration CCA and SDGs in Development Plan

Source: Boer et al. 2016

1. Analysis of emission risk and cc vulnerability/impact – Mapping driving factors for emission and vulnerability & priority locations

2. Identification of Development Programs (Tagging) and its linkage with CC and SDGs

3. Gap Analysis for Program Enhancement, and establish synchronization & Synergy of Programs within and across sectors

4. Setting mechanisms for coordination on programs synergy, synchronization and integration and MRV
1: Analysis of emission risk and climate risk – Mapping driving factors for emission and vulnerability & priority locations

- Facilitating local governments to analyze historical and future emission trend and to understand drivers of emissions using tool (SIGN SMART: http://signsmart.menlhk.go.id/signsmart_new/web/home/) and vulnerability (SIDIK: http://182.253.238.238/administrator/dashboard)

- This process produces information on main driving factor & hot spot (high risk) area

- Two steps of analysis include
  - Assessing historical risks
  - Identifying drivers and hot spot areas (prioritizing locations for CCA&CCM) by evaluating future emission and climate risks
Climate risk assessment at village level (SIDIK), function of vulnerability and change of probability of extreme climate events.

<table>
<thead>
<tr>
<th>Vulnerability</th>
<th>Incre-ase</th>
<th>Con-s-tant</th>
<th>Decre-ase</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
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<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Low</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Level of Priority: Very High, High, Medium, Low, Very Low.
SIDIK: http://182.253.238.238/administrator/dashboard
SIGN SMART
Direktorat Inventarisasi Gas Rumah Kaca dan Monitoring, Pelaporan, dan Verifikasi

EMISI GAS RUMAH KACA INDONESIA 2013
KEMENTERIAN LINGKUNGAN HIDUP DAN KEHUTANAN REPUBLIK INDONESIA

SEKTOR KEHUTANAN
TOTAL EMISI
630.376.46

SEKTOR ENERGI
TOTAL EMISI
548.204.71

SEKTOR LIMBAH
TOTAL EMISI
116.895.81

Grafik Total Emisi
Emisi dari Semua Sektor

Login SIGN SMART
Ketikkan username
### Matrix of emission risks (historical emission) - Step 1

<table>
<thead>
<tr>
<th>Rate</th>
<th>Trend</th>
<th>Increasing</th>
<th>Constant</th>
<th>Decreasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>VH</td>
<td>(5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>H</td>
<td>(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>M</td>
<td>(3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Location prioritization - Step 2

#### Level of risks (Historical) vs. Projection of emission

<table>
<thead>
<tr>
<th>Level of risks (Historical)</th>
<th>Projection of emission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high (5)</td>
<td>VH</td>
</tr>
<tr>
<td>High (4)</td>
<td>VH</td>
</tr>
<tr>
<td>Medium (3)</td>
<td>H</td>
</tr>
<tr>
<td>Low (2)</td>
<td>M</td>
</tr>
<tr>
<td>Very low (1)</td>
<td>L</td>
</tr>
</tbody>
</table>

**Note:**
- VH – Very High priority
- H – High priority
- M – Medium priority
- L – Low priority
- VL – Very Low priority
2: Identification of Programs (Tagging)

• Assisting local governments
  – to better understand programs that will contribute to address not development problems but climate change mitigation and adaptation (CCM/CCA)
  – To evaluate their programs in term of their contribution in addressing development issues (poverty alleviation, livelihood, education, governance, infrastructure, health, etc) and climate change mitigation and adaptation (CCM/CCA) & co-benefit (ES)
2: Identification of Programs (Tagging)

Sectoral Programs/Actions

Contribution to CCM/CCA

No: 0
Yes-Not Direct (Supporting): 1
Yes-Direct: 2

Contribution in addressing development problem (SDGs indicators)

No: 0
Yes-Low: 1
Yes-Medium: 2
Yes-High: 3

Impact on ES: 0

Total Score

Prioritized programs/action based on their contribution in addressing development problems and CCM/CCA
Categorizing Program/Activities of Sector in term of their contribution in addressing development problem and reducing GHG emissions

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>VL</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>M</td>
<td>H</td>
<td>VH</td>
</tr>
</tbody>
</table>
3: Gap Analysis for Program Enhancement, and establish synchronization & Synergy of Programs within and across sectors

Sectoral Programs/Actions

Contribution to CCM/CCA

- No: 0
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- Yes-Direct: 2

Programs/Action

Contribution in addressing development problem (SDGs indicators)

- No: 0
- Yes-Low: 1
- Yes-Medium: 2
- Yes-High: 3

Impact on ES: 0

Prioritized programs/action based on their contribution in addressing development problems and CCM/CCA

Total Score

Emission risk/climate risk maps

Synergizing & synchronizing sectoral programs/Gap analysis

Synergizing & synchronizing sectoral programs/Gap analysis
4: Setting mechanisms for coordination on programs synergy, synchronization and integration and MRV

<table>
<thead>
<tr>
<th>Planning Unit</th>
<th>Priority Locations</th>
<th>Main Program (PU)</th>
<th>Supporting Program (PP)</th>
<th>Beneficiries</th>
<th>Main Agency and Supporting Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation zone</td>
<td>ST (1)</td>
<td>PU1</td>
<td>PP1, PP2, PP3 etc</td>
<td>Communities surrounding forest etc.</td>
<td>Agency A/Agencies B, C, D</td>
</tr>
<tr>
<td>Development zone</td>
<td>T (2)</td>
<td>PU2</td>
<td>PP1, PP2,</td>
<td>Masyarakat sekitar hutan</td>
<td>Agency B/Agencies A, D, F</td>
</tr>
<tr>
<td>Etc</td>
<td>Etc</td>
<td>Etc</td>
<td>Etc</td>
<td>Etc</td>
<td>Agency C/Private-y</td>
</tr>
</tbody>
</table>
Four Steps: Integration Process of CCA and CCM Action Plans into Regional Medium-Long Term Development Plan (RPJMD):
Permen LHK No.33/Menlhk/Setjen/Kum.1/3/2016

**TAGGING PROSES**

1. **Risk Assessment**
   - Baseline emission & Emission risk and climate risk Assessment

2. **Gap Analysis**
   - What program (WHAT) and target location (WHERE)
   - Scale of problems and funding availability and level of urgency (WHEN)
   - WHO to implement and HOW to monitor the performance and achievement

3. **Adjustment, refinement, synchronization, synergism of programs within and across sectors and monitoring and evaluation system (KISS ME)**

4. **Identification of other development partners and additional funding sources (WHO)**

**Prioritized Program/Actions**
- High
- Medium
- Low

**Prioritized Locations**
- Very high
- High
- Medium
- Low
- Very Low

**TAGGING PROSES**

1. **Development Program (Tagging)**

2. **Gap Analysis**

3. **Risk Assessment**

4. **Identification of other development partners and additional funding sources (WHO)**
Coordinating, Synergizing, integrating Programs and activities across sector and partners that contribute toward low carbon and climate resilience development

WHAT programs can be coordinated and synergized?

WHERE, which sites?

WHEN should be implemented?

WHO will lead and involve?

Supporting by science for prioritizing, integrating, synergizing programs and activities

HOW to monitor?
Epilogue

• Availability of tool is very useful for assisting the local government in the process of synchronizing climate actions and SDGs
  – Increasing understanding on linkage between climate actions and SDGs
  – Designing short-medium and long-term strategy for addressing development issue but also GHG emission and climate risk under multi-stakeholder setting
  – Facilitating process of synergizing, synchronizing and integrating sectoral programs
  – Facilitating coordinated actions in addressing the development problems and implementing low carbon and climate resilience development
  – Assisting in defining funding needs toward low carbon development and climate resilience development