Fisheries Statistics and One Data Policy in Indonesia

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Outline

• Introduction of Indonesian geographical conditions

• Fisheries statistics in Indonesia

• One data policy of fisheries in Indonesia

• Challenges in collecting Indonesian fisheries data

• Proposed recommendations
Introduction of Indonesian geographical conditions
Introduction of Indonesian geographical conditions

Water Area : 6.4 million km²

Coastline length : 108 thousand km

Number of islands : 17,504 islands

Population : 271 million

Source:
Fisheries statistics in Indonesia
Fisheries statistics in Indonesia

Official Data Collectors:

1. Ministry of Marine Affairs and Fisheries (MMAF)
2. Statistics Indonesia (BPS)

Based on:
Act number 16 year 1997

Article 1 subsection (6) :
Sectoral statistics are statistics whose use is intended to meet the needs of certain institutions in the context of carrying out the tasks of government and development which are the main tasks of the institution.

Article 12 subsection(1) :
Sectoral statistics are held by government institutions in accordance with their scope of duties and functions, independently or jointly with the Agency (BPS – Statistics Indonesia).
### Fisheries statistics in Indonesia (2)

<table>
<thead>
<tr>
<th>Survey name</th>
<th>Collection time</th>
<th>Respondent coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Production of capture fisheries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Fish landing place</td>
<td></td>
<td>a. Complete enumeration</td>
</tr>
<tr>
<td>c. Outside of fish landing place</td>
<td></td>
<td>b. Complete enumeration</td>
</tr>
<tr>
<td>2. Production of aquaculture</td>
<td>Annually</td>
<td>c. Systematic samples</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Survey name</th>
<th>Collection time</th>
<th>Respondent coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Census &amp; inter-census survey of agriculture</td>
<td>decades</td>
<td>1. Complete &amp; samples enumeration</td>
</tr>
<tr>
<td>2. Production and costs of fish establishment</td>
<td>Annually</td>
<td>2. Complete enumeration</td>
</tr>
<tr>
<td>3. Production in fish auction place</td>
<td>Quarterly</td>
<td>3. Complete enumeration</td>
</tr>
<tr>
<td>4. Production in traditional fish landing place</td>
<td>Quarterly</td>
<td>4. Complete enumeration</td>
</tr>
</tbody>
</table>

**Explaining the abbreviations:**
- **MMAF:** Ministry of Marine Affairs and Fisheries
- **BPS:** Badan Pusaka Statistik (Indonesian Statistical Bureau)
### Fisheries statistics in Indonesia (3)

#### Data coverage:

<table>
<thead>
<tr>
<th>Capture fisheries</th>
<th>Aquaculture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Marine</strong></td>
<td><strong>1. Mariculture</strong></td>
</tr>
<tr>
<td><strong>2. Inland open water</strong></td>
<td><strong>2. Brackish water pond</strong></td>
</tr>
</tbody>
</table>

**Aquaculture**

- 1. Mariculture
- 2. Brackish water pond
- 3. Fresh water pond
- 4. Cage
- 5. Floating net
- 6. Pen Culture
- 7. Rice fish
Fisheries statistics in Indonesia (4)

**Fish, crustaceans, molluscs, etc production**

Aquaculture production by principal producers in 2017 (million tonnes)

- **China**: 15.37
- **India**: 6.69
- **United States**: 5.04
- **Viet Nam**: 5.04
- **Bangladesh**: 4.87
- **Russia**: 4.87

Capture production by principal producers in 2017 (million tonnes)

- **China**: 15.37
- **India**: 5.43
- **United States**: 5.04
- **Viet Nam**: 5.04
- **Russian Federation**: 4.87
- **Bangladesh**: 4.87

Source: Fishery and aquaculture statistics, FAO yearbook
Fisheries statistics in Indonesia (4)

**Seaweed and other aquatic plants production**

<table>
<thead>
<tr>
<th>Country</th>
<th>Production (million tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>17.53</td>
</tr>
<tr>
<td>Korea Rep</td>
<td>1.76</td>
</tr>
<tr>
<td>Phillipine</td>
<td>1.42</td>
</tr>
<tr>
<td>Indonesia</td>
<td>9.75</td>
</tr>
<tr>
<td>China</td>
<td>0.42</td>
</tr>
<tr>
<td>Taiwan</td>
<td>0.20</td>
</tr>
<tr>
<td>Norway</td>
<td>0.16</td>
</tr>
<tr>
<td>Japan</td>
<td>0.07</td>
</tr>
<tr>
<td>Korea DPR</td>
<td>0.05</td>
</tr>
<tr>
<td>Phillipine</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Source: Fishery and aquaculture statistics, FAO yearbook
One data policy of fisheries in Indonesia
One data policy of fisheries in Indonesia

History of one data implementation

President’s speech
"... we don't want to repeat old traditions where there are many planning and budgeting and there are disconnected, out of sync ... And I emphasize, things like this cannot happen again. And planning must be integrated, consolidated, organized, between sectors, between regions, between centers and regions, and there are no such things like sectoral egos. “
(April 13th, 2016)

National one data program
Announced by The Presidential Staff Office (Deputy II) to ensure the availability of high data integrity for:
1. The key of integrated development
2. Welfare with justice
3. Inclusive economic development for now and later

One data pilot program
7 (seven) ministries are selected to conduct the pilot program:
1. Ministry of Marine Affairs and Fisheries (May 30th, 2016)
2. Ministry of Energy and Mineral Resources
3. Ministry of Health
4. Ministry of Research, Technology, and Higher Education
5. Ministry of Environment and Forestry
6. Ministry of Education and Culture
7. Ministry of national development planning

Source: https://kkp.go.id/setjen/satudata/page/856-tentang-satu-data
One data policy of fisheries in Indonesia (2)

Journey of one data of fisheries in Indonesia

- **2016**
  - Launching of one data of fisheries (May 30th 2016)
  - Planning, designing, application’s building (Listing, production data collection), modules arrangement, training (Enumerators, Validators, other users), socialization, implementation

- **2017**
  - Socialization, implementation, enumerators training
  - Focus group discussion to crosscheck and analyse methods
  - Modules arrangement continues

- **2018**
  - Evaluation of 2017 implementation
  - Launching of KUSUKA (fisheries business card) and government subsidies modules
  - Completion of rodution data collection module integrated with KUSUKA module
  - Enumerators is trained as a trainer to other (new) enumerators

- **2019**
  - Completion of KUSUKA list to prepare it as sample frame
  - Act No. 39 Year 2019 about one data Indonesia as guideline to implementing one data

One data policy of fisheries in Indonesia (3)

Challenges of one data of fisheries

Data and information:
1. Standard
2. Metadata

Infrastructure:
1. Stable network
2. Security systems

Application:
1. multi-platform application access
2. Integration
3. One data portal

Human resources:
1. Competence
2. Certainty career
### One data policy of fisheries in Indonesia (4)

#### Impacts of one data of fisheries

<table>
<thead>
<tr>
<th>No</th>
<th>Criteria</th>
<th>Before One Data</th>
<th>After One Data</th>
</tr>
</thead>
</table>
| 1  | Database                              | • Not standard  
• Splitted  
• Not well traceable                                                        | • Standard  
• Integrated  
• Traceable                                                               |
| 2  | Scope of responsibility               | Technical units  
(directorate general of capture fisheries, directorate general of aquaculture) | Data and information center division (DIC)                                      |
| 3  | Data collection process               | Not standard                                                                | Standard                                                                      |
| 4  | Data                                  | • Not well defined  
• Splitted dissemination portal  
• Long tiered access to get data                                           | • Well defined of Master data, transaction, and metadata  
• Integrated dissemination portal  
• One access to get data (from DIC)                                     |

Challenges in collecting Indonesian fisheries data
Challenges in collecting Indonesian fisheries data (1)

Official Data Collector: Statistics Indonesia (BPS)

Respondent: Establishments

- Difficult to visit, slow responses
- Need a long time to fill out the questionnaire (complex questions, complex division, self enumeration)
- Incomplete questionnaire’s answers

Respondent: Households

- Very wide range of households and regions (need much funds and enumerators)
- Not annually collected (limited funds)
- Lack of enumerators comprehension about fishery’s technical knowledge (capture fisheries, aquaculture)
- Difficult to collect the whole fishery’s data (complex characteristics)
Challenges in collecting Indonesian fisheries data (2)

Official Data Collector: Ministry of Marine Affairs and Fisheries (MMAF)

Respondent: **Fisheries households**
(including Establishments)

- **Low number of enumerators**
  (target: provide 1 enumerator for 1 sub-district; total enumerators = 4,937 (2019); total sub-districts = 7,094 (2017))

- **Lack capacity of data processing and analyzing in districts and provinces**

- **Data communication to national data center still less than 90% uptime**
Proposed Recommendations
## Proposed Recommendations

<table>
<thead>
<tr>
<th>No</th>
<th>Challenges</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Standard of data</td>
<td>• Ministries/agencies agreed on same concepts, definitions, area codes, etc based on international recommendation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Socialize the standard concepts, definitions, area codes, etc between ministries/agencies</td>
</tr>
<tr>
<td>(2)</td>
<td>Data coverage</td>
<td>• Central and regional institutions have to discuss about data coverage for their necessities</td>
</tr>
</tbody>
</table>
Thank you!

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