Indonesia’s
Efforts to Utilize Water Sustainably for
Food Security
(Aquaculture Perspectives)

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East Asian Congress, Ilo Ilo, Philippines
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World Fish Supply
Now Vs Future

2016
- Wild Caught: 53%
- Aquaculture: 47%

2030
- Wild Caught: 38%
- Aquaculture: 62%

Source (FAO 2018, WorldBank, IFPRI 2014)
INDONESIA, one of the largest aquaculture producers

Trend of World Production (1950-2015)

<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>Tonnes (Thousand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China</td>
<td>63,631</td>
</tr>
<tr>
<td>2</td>
<td>Indonesia</td>
<td>16,581</td>
</tr>
<tr>
<td>3</td>
<td>India</td>
<td>5,703</td>
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<tr>
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<td>Vietnam</td>
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<td>5</td>
<td>Bangladesh</td>
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<td>6</td>
<td>Philippines</td>
<td>1,405</td>
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<td>7</td>
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<tr>
<td>8</td>
<td>Republic of Korea</td>
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<td>9</td>
<td>Norway</td>
<td>1,326</td>
</tr>
<tr>
<td>10</td>
<td>Chile</td>
<td>1,050</td>
</tr>
</tbody>
</table>

Top 10 in 2016

Contribution of aquaculture to the world fisheries production:

- 1991: 8%
- 2000: 25.7%
- 2016: 46.8%

Source: SOFIA, FAO 2018

Capture fisheries show stagnant production while aquaculture develops, as a result, aquaculture is considered as the ideal option to fulfill food needs to the world.

Source: FAO, 2018
Sustainability Principles in Indonesia Aquaculture

Sustainability Framework in Indonesia Aquaculture

Carrying Capacity
Spatial Planning
Blue Economy
Ecosystem Approach Aquaculture (EAA)
National Standards
Good Aquaculture Practices

Brackish water
Fresh water
Marine water
AQUACULTURE CHALLENGES IN INDONESIA

- **FISH FEED**
  - 60-70% of cost production

- **INCREASING FISH DEMAND**
  - From the national, Regional, and Global level

- **ENVIRONMENTAL**
  - Decreasing water quality and quantity, Longer period of dry season, Flood

- **OVER CARRYING CAPACITY**
  - Cage culture in Reservoirs/lakes

- **FISH GENETIC**
  - Brodstock quality and SPR/SPF seed

- **FOOD SAFETY AND TRACEABILITY**
  - Demand from buyers countries

- **CLIMATE CHANGE**
  - Variability and long term impact

- **CONFLICTS**
  - Between resources users
1. Eco-Friendly Regulations and Policy:
- Enacting Government regulation number 15 year 2018 Regarding normalization of River Basin in Citarum.
- Single use plastic ban (Bandung District and Bali Province)
- Focus on low impact aquaculture such as Seaweed

2. Efficient Aquaculture Technology such as: RAS systems, Bioflok, IMTA
Expected Conditions

Collaboration

Governance

Cooperation

Best Practice