Future opportunities and challenges in developing sustainable “offshore” Indonesian fisheries

Outline

- Fisheries in Indonesia, IUU and national sovereignty
- Theory - Foreign fishing and domestic fishery development
- The Opportunity
- The Challenges
- Going Forward
- Conclusions
Indonesia - fisheries overview

- 17,500 island archipelago, rural coastal communities (60% popn.);
  Large EEZ and high species richness & productivity (Coral Triangle)
- 6m t production 2014- 2nd globally; High fish protein dependence;
- Fleet >500,000 small <5 GRT vessels (inshore coast) (~40% catch)
- ‘Midwater’ ~ 50,000 medium vessels (~20 GRT) (coastal) (~30% catch),
- Offshore ~10,000 larger vessels in archipelagic or EEZ, targeting tuna in W.Pacific and Indian Ocean (~20% catch), national licensing.
- Industrial sector in EEZ,~10% catch, (foreign/joint venture tuna, prawn).
- Commitments to sustainable fisheries management: LOSC, UNFSA, Port State Measures, RFMOs (3 tuna), National Laws/Regulations (EAFM), CTI, FIPs and data projects, e.g., WPEA OFM, MPDI
- Concerns over overfishing and overfished stocks (LIPI,2011).

Indonesian fisheries exploitation status 2011

PETA TINGKAT EKSPLOITASI SUMBERDAYA IKAN DI WPP RI

Most fisheries fully or overexploited; Number of vessels continues to increase particularly in province and district zones
The Illegal, Unreported and Unregulated fishing (IUU) problem

• IUU fishing is in contravention of international law/obligations for sustainability, national conservation and management measures
• IUU exacerbates overfishing and leads to over fished stocks threatens species and habitats, e.g. juvenile tunas, coral reefs
• Makes assessing stocks and setting effort controls difficult.
• Reduces or eliminates domestic development opportunities.
• Threatens food supply and security and threatens economic and social stability.

• IUU and national sovereignty
• 2014 new “Jowoki” government vision to build “Maritime Indonesia”…. getting tough with IUU.
• Policy to apprehend and sink IUU vessels.
• "If the perpetrators of IUU fishing are not affiliated with any legal entity, we will sink them immediately” Min. Susi Pudjiastutı…. “That’s the new rule, the national consensus.”
• To date over 315 vessels sunk.
• IUU and national sovereignty

• The actions proved to be popular in Indonesia.

• Many cartoons... "anything else to light up/BBQ".. She’s even in comic strips in Japan!

• ..and my cartoon!

Note: the KKP office “life size” cardboard Susi!
• **IUU and national sovereignty**

  - Q. Is the sinkings legal? Court processes have been speeded up after initial “demonstrations”.
  - Q. Has it had Bilateral impacts with neighbours? Yes, but..
  - “…there’s no way IUU fishing is a part of a good bilateral relationship”… Minister Susi.
  - "God created Indonesia as an archipelago and it is God’s will that Indonesia will develop into a maritime nation."
    Pak Eddy (Ship Building Assn.)
  - Belief, Nationalism, …but what do the economics say?

• **Theory - Foreign fishing (FF)**

  - Legitimate foreign fishing is part of UN LOS Art 62.
  - Total Allowable Catch (TAC) is determined and the surplus can be made available through Access fees or other benefits as agreed with the coastal state.
  - Coastal state(CS) can benefit from importing foreign fishing services. FF provides capital, pays for access & takes risks on catches, - CS collects a “rental fee” by access an agreement.
  - In the Western Pacific PNA system, FF’s buy vessel days …generating US $360m/yr “rental income” to CS.
  - FF may have a “comparative advantage” and
  - FF is a substitute for trade (“Fishing services”- World Bank)
• **Theory - Domestic Fishery development**

- CS aspires to use its “own” fish resources
- Q. Does the CS have a comparative advantage over the FF?
  Q. What gives comparative advantage?

<table>
<thead>
<tr>
<th>Resource type</th>
<th>Fishing sector</th>
<th>Processing Sector</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish (land)</td>
<td>CS</td>
<td>CS?</td>
<td>CS have the fish</td>
</tr>
<tr>
<td>Vessels (Capital plant)</td>
<td>Less tech. &amp; higher costs than FF?</td>
<td>Less processing capacity than FF?</td>
<td>Challenge area for CS</td>
</tr>
<tr>
<td>Labour</td>
<td>Less skilled Labour?</td>
<td>Less skilled labour?</td>
<td>Challenge area for CS</td>
</tr>
<tr>
<td>Enterprise</td>
<td>Less capacity &amp; experience?</td>
<td>Less capacity &amp; experience?</td>
<td>Challenge area for CS</td>
</tr>
</tbody>
</table>

**FF v DFD comparison**

- In more detail
  - **Land (stocks)** - Fishery management keeps stocks healthy
  - **Capital/plant** - Access to capital for investment (government and banking sector structure), vessel & food processing technologies, government policies (subsidies).
  - **Labour** (long trips, unsocial conditions), skills (skippers, fishing mates and crew). Nb. Slavery is zero rated labour!
  - **Enterprise** (expanding competence in fishing operations, the size of the seafood processing industry, business skills).
- These will require time and effort for Indonesia to develop.
Offshore Indonesia - The loss from IUU

- Various estimates of US $3bn (to $5bn) value of annual catch
- MMAF – “$20bn loss”?
- Annual catch could be 9m t” (M.Susi)...3million t increase.
- Limited information on how estimates were calculated? What is included?
- But what was economic loss to Indonesia from IUU?
- Ie. What could Indonesia gain if they replaced IUU in fishing and built up the secondary sector?
- The opportunity and how to get there, needs to be scoped and evaluated.

The Opportunity

- Q1 WHAT is the opportunity?
- Ans. Domestic fishery development (DFD) - to replace IUU and assist fishing, processing/exporting industry development
- Q2 WHERE is the opportunity?
- Ans. Potential OFFSHORE development, COASTAL benefits and then SECONDARY SECTOR benefits (supply services, processing, marketing and exporting).
- Q3 HOW BIG is the opportunity?
### The Challenges - development

<table>
<thead>
<tr>
<th>Issue</th>
<th>Fishing</th>
<th>Secondary sector</th>
<th>Enabling Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital plant</td>
<td>Access to capital (banks &amp; finance)</td>
<td>Access to capital (bank &amp; finance)</td>
<td>Public expenditure on ports/hubs</td>
</tr>
<tr>
<td>Labour</td>
<td>OF: crewing CF: training</td>
<td>Trained for market and export standards</td>
<td>Public &amp; private expenditure on training</td>
</tr>
<tr>
<td>Enterprise (Private sector very important)</td>
<td>OF &amp; CF-operations &amp; business training</td>
<td>Quality, operations &amp; business training</td>
<td>Public &amp; private expenditure on industry development &amp; training</td>
</tr>
<tr>
<td>Fish stock</td>
<td>F.Management to restrict fishing effort, &amp; Quota (ITQ?)</td>
<td>Good FM secures investment long term</td>
<td>Public expenditure on restrictive FM frameworks</td>
</tr>
</tbody>
</table>

### The Challenges - industry

- Access to capital via banking system to invest in fisheries and secondary sector
- Industry need port and transport infrastructure at “hubs” (services, refrigeration, roads & airfields to move product).
- Cold supply chains and developing home & export marketing to gain higher product prices.
- Restrictive fishery management (Effort and Quota) can be a sustainable investment framework.
- Industry follow regulations & provide data for management.
- To have no external IUU fishers and address “internal” IUU.
**The Challenges - Government action**

- To assist small scale coastal fishers to benefit - eg. 2016 Government to provide 3,500 new boats (5-10 gt) to fishermen in stages until 2019 & Insurance for 1m fishers.
- Support for fish farms in the country (US$165m).
- Improve the quality of fishery products, marketing and supply chain management in the industry (US$175m)
- More measures to keep out IUU fishers using VMS, + local vessels as an information source.
- Deal with “internal IUU” .....eg. More effective licensing and incentives to comply.

**Going forward- Time profile**

- How much time is needed to build an industry?
- *Three stages:*
  - **Initial** stimulus to get operators “out there” (0- 3 years?);
  - **Transitional period** - to develop FM as a resource investment framework (0-10 years?)
  - Develop fishing industry capacity & on-shore secondary sectors (0-10 years)
  - **An ongoing more sustainable fishery regime** (year 10 +)
  - Capacity development needed at many levels
• Going forward - the risks

• Experience shows comparative advantage is always mixed.
• It may only benefit Indonesia to develop domestically to a certain point?.....Joint ventures may then be an option?
• Domestic investment & fishing effort increase can exceed the sustainable catch (eg. Canadian Cod and Australia East Coast tuna fishery).
• IUU /“Internal IUU” can undermine DFD plans requiring good Monitoring Control and Surveillance (MCS).
• Management requires good investment framework measures, sound information & quality data and skilled staff.

Sustainable fisheries management

• Appropriate management controls: Input & output e.g. Effort & Catch quotas.
• Need for reliable data as part of licence and new FM measures

Capacity development need!
ANCORS & MMAF have CD MOU since 2010 & DFAT FM training programs.
Conclusion - Opportunities and challenges

- The replacement of IUU activity is an opportunity for Indonesia to grow its seafood industry/economy.
- It needs to be described & evaluated (Packard F.).
- Capital & infrastructure are needed to promote industry development (Gov’t & finance sector).
- Needs restrictive approaches for sustainable FM.
- FM requires good data and capacity development.
- IUU /“Internal IUU” can undermine DFD plans, requiring good MCS.

Thank you…. Terima kasih

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