MANGROVES AND SHRIMP CULTURE: DOES IT HAVE TO BE THIS BAD?!

Towards a mangrove-friendly sustainability space for cultured shrimp

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SO.. THERE'S NO MANGROVE-FRIENDLY SHRIMP SOLUTION OUT THERE?



REALITY CHECK







...AND THE UNDERPERFORMING MIDDLE

- Medium productivity (15-90 PL/m2)
- The bulk in mangrove areas
- Dependence on highly problematic fisheries for feed production
- Pollution due to effluents
- Spread of disease to wild shrimp populations



NotherJones

POLITICS	ENVIRONMENT	FOOD	MEDIA	CRIME & JUSTICE	PHOTOS	INVE

Shrimp's Carbon Footprint Is 10 Times Greater Than Beef's

TOM PHILPOTT FEB. 22, 2012 7:00 AM



SOLUTIONS ON THE EDGE

- Extensive systems can co-exist with mangrove ecosystems or integrate them through smart design.
- RAS for shrimp can drastically reduce land use and thus save mangroves.
- Extensive systems avoid fishmeal-based feeds; RAS use them exceptionally efficiently
- Mangrove-shrimp productions systems have natural buffers against disease, whereas RAS contain them.

.. AND SOLUTIONS FOR THE SUB-OPTIMAL MIDDLE GROUND



THE BIGGER PICTURE

- Some believe that we can feed the world by producing more food with less resources by intensifying production systems. Although efficiency increases are often opportune, intensification advocates tend to:
 - Narrowly define 'sustainability' (land, CO2);
 - As a result, overlook massive externalities (climate!);
 - ...and forget that land should do more than just producing food (notably, it should conserve biodiversity and deliver ecosystem services).
 - Ignore historical evidence that efficiency tends to spur consumption growth (Jevons paradox).
 - Now, if you consider that shrimp is a luxury commodity, can you justify its growth through intensification - at the cost of the environment and livelihoods?









KEY MESSAGE

Unless markets embrace a specific sustainability space for shrimp from extensive production systems *and* one for highly intensive shrimp from recirculating systems...

...they will create an underperforming middle ground at the cost of livelihoods, ecosystem functions and gastronomic diversity.



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MOST CERTIFICATION SYSTEMS DON'T FIT THE BILL

- Mainstream certification systems are a bad fit for BT from extensive systems because they were designed for large-scale intensive systems
 - They are not reasonably attainable for smallholder farmers due to the heaviness of the management and audit requirements.
 - Despite these requirements, ASC and BAP do not add sustainability value, because the technical requirements are designed for intensive systems. High costs, yet no improvement on the ground.
 - What's more, they do not (yet) address issues in supply chains (fish meal, slavery, decent employment)
 - On the market side, it doesn't make sense to use the ASC or BAP logo, because it undermines unique positioning of premium BT as the greener, safer and tastier option
 - There is a lack of acceptance of 'foreign' certification systems in many countries
- In the case of EU organic, BT PL cannot be produced according to the latest rules for hatcheries; as a result, organic shrimp in the EU market will in the future likely be vannamei produced in Latin America.



RATIONALE FOR PREMIUM, EXTENSIVE BT SHRIMP

I started by stating my key message: that markets should embrace improvement systems for extensive BT shrimp.

Here's why:

- Because there is significant market potential for premium, extensive BT shrimp
- Because I believe the environment can't take more intensive systems, certified or not, unless they're RAS
- Because dominant certification systems have nothing to offer to BT producers
- Because we can change the lives of hundreds of millions of people by strategically positioning extensive BT shrimp based on inclusive business cases

STRATEGIC STARTING POINTS FOR BANGLADESH BT IMPROVEMENT

- From a market perspective, extensive BT should be uniquely positioned as a premium product
- Contrary to intensive systems, extensive BT systems can deliver significant value to society and should.
 - In the case of Bangladesh, they can contribute to climate change mitigation and adaptation, most notably coastal resilience. In the context of a world suffering from runaway global warming, extensive BT systems should fulfil this potential.
 - Extensive BT sustains the rural livelihoods of hundreds of thousands of people (rather than a number of large-scale producers). Go to Dhaka to see how wonderful urban employment is!
 - In the Bangladesh context, intensification vs ecological development of extensive farming systems is essentially a class fight over natural resources. Going premium extensive is the only way to safeguard local livelihoods.
- Mainstream certification systems have nothing to offer to these farmers. At best, a poorer competitive position for extensive coastal farmers than society should accept.

THE MARKET PERSPECTIVE: BT AS A PREMIUM PRODUCT

- Black tiger shrimp (BT) cannot compete with bulk vannamei shrimp, because BT cannot be produced as intensively.
- And there is no need to compete: key BT buyers agree that there is scope for niche positioning. For example, a leading European retailer strives to make its main brand 100% extensive. Extensive BT is:
 - Gastronomically superior to vannamei
 - Increasingly rare
 - Produced without feed: it is 'slave free' and doesn't carry the massive burden of environmental externalities associated with shrimp feed (use)

Intensification of BT constitutes poor business and sustainability strategy. Shelving BT with vannamei under the same label is bad market positioning.

POSITIONING EXTENSIVE BT AS A PREMIUM, GREEN PRODUCT

- What is needed to successfully position BT as premium product?
 - Markets should embrace extensive BT.
 - We will likely need 3+ origins and multiple big buying companies
 - Production systems and supply chains should meet the highest quality standards
 - Sustainability improvement systems should add value:
 - They should resolve key issues ideally through continuous improvement;
 - They should be attainable, effectively bridging the gap between international requirements and local capabilities;
 - They should add value across supply chains.

SOLUTIONS IN SIGHT

- SEASAIP* offers a species- and production-system specific, continuous improvement protocol with supplychain approach for extensive BT based on Asian GAP standards (ASEAN, Thailand, Indonesia, Vietnam)
- Solidaridad and STIP have entries in the European sector but many companies have committed to ASC.
 A communication campaign should target high-end buyers in export markets, including retail with a diverse seafood shelve and specialised food service companies
- Smart, IT-based verification systems, like Verifik8, will need to reduce costs significantly. The Bangladesh
 government is working on transparent, online documentation systems.
- Solidaridad has developed an IT system, Rural Horizons, that enables farmers to self-assess against local and international legislation and standards.
 - It will enable stakeholders to identify the best improvement pathway and convince both farmers and buyers
 - It will allow them to identify priorities in the context of a continuous improvement system
 - It will serve as a stepping stone to innovative means of verification by offering access to performance data.

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