

# Small-scale farmers



A joint presentation based on the experiences  
of NACA, MPEDA and FAO

# Why focus on small-scale farmers?

- Bulk of production in many countries in Asia is from family scale operations
  - estimated around 80%
- The small-scale sector is important
  - rural development, employment and poverty reduction
- Huge numbers of farmers
  - this makes the small-scale sector difficult to regulate
- Individual farms do not particularly impact
  - when aggregated their impact may be significant
- There will be significant social and economic benefits if the sector can be effectively serviced to participate in modern market chains.

# What is a 'small-scale' farmer?

- Typically
  - family sized operations
  - small water-area
  - often using family labour
  - based mainly on the family's land
- Maybe diffused through a district.....
- .....or highly concentrated around specific resource (e.g. water supply, access road)



# Small-scale farmers face constraints

- Difficulty in access modern market chains
  - Market standards
  - Costs and business structures, risks, *etc*
- Limited access to knowledge services
  - Commercial/government servicing less oriented towards the small-scale farmer.
  - Market information
  - Technical and business knowledge
- Limited/equitable access to financial services
- Social, economic implications of current direction in many rural communities significant



# What limits small-scale farmers entering certification schemes?

- Small size operation and large numbers
  - May not be organized into producers groups
  - May not even be formally registered/licensed
  - Small volumes of product from individual farms.
  - Individually - will value and volume of crop cover costs of certification?
- Complex marketing channels
  - Often specifically dedicated marketing channels
  - Through middlemen or direct to a local market
- Low, or no market incentives
  - May not be producing an export product,
  - Often producing to least cost to sell within a less wealthy domestic market

# What limits small-scale farmers entering certification schemes?

- Limited financial resources
  - Lack of cash, often working on a crop to crop basis
  - Income from the crop is usually rolled into other activities.....
  - .....with limited re-investment into the aquaculture system
- This means that a significant investment required:
  - Maybe unattractive to meet more stringent environmental criteria through farm modification
  - Modification of production method is easier – especially if it involves reduction in operational costs
  - BMP experience in shrimp is a good example
- Small-scale farmers
  - highly risk averse -- additional costs to production with an unknown outcome will not be adopted
  - sensitive to stories of failure - unsuccessful schemes will make farmers more cautious

# Certification trends

- Increasing trends towards certification, traceable, quality assurance etc.
- No certification scheme specifically targets the small-scale aquaculture sector.
- Other schemes may apply to small-scale, but not specific to aquaculture yet
- Interest and promise in “cluster approach” but limited practical experiences

## CONCLUSION

- Dominant part of sector production is not well catered for!
  - Clearly a potential problem is emerging



# Are there ways to help small-farmers participate in certification?

- Yes!
- Organization of farmers into producer groups
  - allows certification of groups as opposed to individuals
- Think carefully about standards and approaches
- Markets
  - Export target products are more likely to be certified
    - shrimp, basa, tilapia are good examples.
  - Niche domestic markets exist
    - BMP, chemical free, organic, locally famous “brand/product”



Farmers and hatchery



Single spawner



No mixing of nauplii from different brooders in PL rearing tanks



Hatchery record



Access to farmer representatives



Disease free seed





**Organization of small-scale farmers is possible:  
an example from India**

# Technical collaboration between MPEDA and NACA on shrimp disease control

- Formulation of “Better Management Practices” (BMPs)
  - Part of technical assistance programme during 2000-02.
- Second program aimed at village demonstration between 2003-06
  - start of “cluster” approach.



# Objectives

- To reduce the risk of disease outbreaks and improve the production in shrimp farms.
- To organize the farmers under “Self Help Groups” / “Aquaclubs” for sustainable production and to meet market demands.
- To produce better quality shrimps in socially acceptable, environmentally sound and economically viable manner.



# Better Management Practices applied

1. Good pond preparation
2. Good quality seed selection
3. Water quality management
4. Feed management
5. Health monitoring/Biosecurity
6. Pond bottom monitoring
7. Disease management
8. Better Harvest and post-harvest Practices
9. Record maintenance/Traceability
10. Environmental awareness



# Cluster

- A group of inter-dependent shrimp ponds situated in a specified geographical locality
  - Usually all ponds dependent on the same water source
  - Or maybe otherwise connected – eg common processor



Cluster in Valsad, Gujarat



Cluster in Tanjavur, TN



Cluster in Kundapur, KA

# Cluster Farming

Collective planning, decision making and implementation of crop activities

- by a group of farmers organized in a cluster through participatory approach
- agree to organize to accomplish common goals (reduce risks and maximize returns)



# Increased co-operation among farmers

1. Increased co-operation and harmony among farmers-better organized farmer groups, more bargaining power for farmers in buying farm inputs
2. Cooperation in selecting/testing and buying seeds- Reduced cost and improved seed quality
3. Information sharing among farmers-reduced disease risks
4. Increased co-operation in sharing common facilities-deepening inlets, drains etc
5. Reduced costs and improved profits for all the cluster farmers



Weekly meetings



Stocking at same time



Co-operation In creating common facilities



# Progress in last 6 years

2001  
Survey  
365 ponds  
Nellore  
West God.  
Risk factors  
BMPs

2002

**2002**  
Farm level demonstr  
ation  
5 farmers  
**10 ponds**  
7 Ha  
**4 tonnes**

2003

**2003**  
Village level extension  
1 Village  
1 Aquaclub  
58 farmers  
**108 ponds**  
58 Ha  
**22 tonnes**

2004

**2004**  
Creek level extension  
6 Villages  
7 Aquaclubs  
130 farmers  
**254 ponds**  
173 Ha  
**40 tonnes**

2005  
AP  
KA  
GU

**2005**  
State level expansion  
3 States  
19 Aquaclubs  
736 farmers  
**1187 ponds**  
663 Ha  
**672 tonnes**

2006  
AP  
OR  
TN  
KA  
GU

**2006**  
5 States  
28 Aquaclubs  
730 farmers  
**1370 ponds**  
813 Ha  
**870 t**

**2007+**  
**National**  
**Centre for**  
**Sustainable**  
**Aquaculture**

Contract hatchery  
Seed Production

Pilot trace-  
ability

Expansion to  
other states

Expansion to 5  
states



NaCSA





# Cluster certification – the next steps

## Objectives:

- Connecting farmers to markets to receive a better price for quality product
- Better market access (and better price?) for cluster certified products
  - should encourage more farmers to adopt better farming practices
- Partners with processors/buyers



# Farmer concerns

- What are the cost and benefits from certification
  - who gets these potential costs and/or benefits - help farmers?
    - can they get better price after certification?
- How will it be paid for?
  - most Aquaclub shrimp in India from small and marginal farmers
  - not in a position to pay for certification.
- Who will certify?
  - can it be harmonised with existing BMP practices?
  - will it be recognised in the international market?
- Raised expectations
  - farmers expect better market access, better price for BMP shrimp,
  - this expectation will increase further after certification
- Who will 'service' the small-scale sector to organise?

# Cluster certification

## – positive trends for clusters in India

1. Through implementation of BMPs disease incidence has been reduced
2. Cost of production reduced and profit margin has improved
3. Improved food safety - through traceability and no use of banned chemicals and antibiotics
4. Problem solving capacity of the farmers has improved
5. Banks are financing cluster farmers
6. Insurance companies are showing interest to insure the crops
7. Govt. Institutes are helping small scale farmers in setting up common infrastructure
8. Better market access through cluster certification will give boost the cluster concept

# Facilitating small-scale farmers to access certification

- Access to organizational and technical assistance:
  - More focused servicing mechanisms for the small-scale sector
- Access to finance
  - Kick-start schemes which cover the initial costs of certification seem to be the norm
  - Funded by donors, NGO's or initiated under government funding
  - Are there market solutions??
  - This approach may distort economic realities, however it seems the only way to start the ball rolling
- Access to markets and incentives
  - Improving market access and providing market/price incentives
  - Build partnerships with processors
- Defining “certification units”
- Government policy support

# Conclusion

- Small-scale farmers make up the majority of Asian aquaculture farmers
- Participation in certification programs will be essential if buyers demand certified product
- Cluster approach is one way forward
- However, substantial investment and policy support for the small-scale sector will be required





Thank you

