



VALUE CHAINS OF CAPTURED & CULTURED SNAKEHEADS (*Channa micropeltes* & *Channa striatus*) IN THE LOWER MEKONG BASIN OF CAMBODIA & VIETNAM



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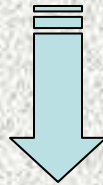


AquaFish CRSP Project

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Phase 1 (2007-09) => **Makerting of snakehead products is important!**



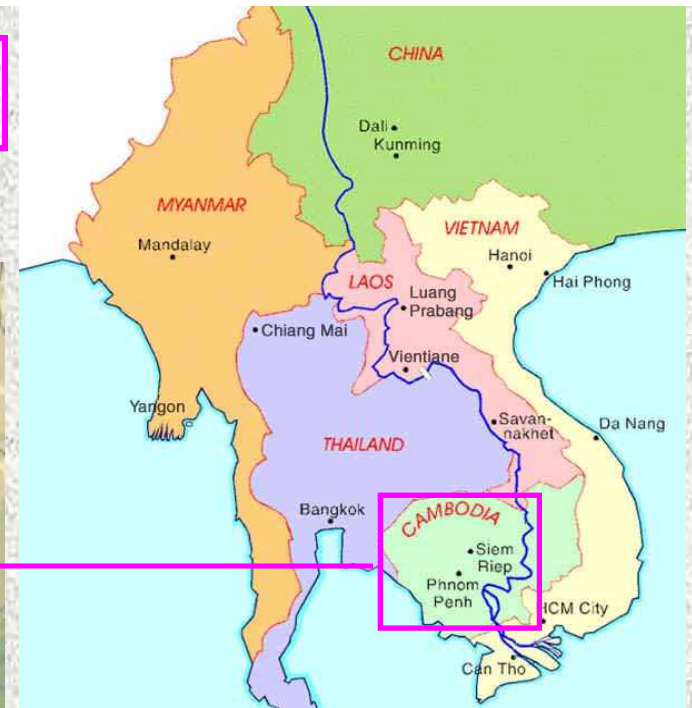
Investigation 5 – Phase 2 (2010-11)

VALUE CHAIN ANALYSIS OF SNAKEHEAD FISH IN THE LOWER MEKONG BASIN OF CAMBODIA & VIETNAM

OBJECTIVES:

- To describe the chain actors and their activities related to SH;
- To analyze the contribution of costs & the distribution of profits;
- To analyze the perception of major groups of chain actors;
- To propose the suggestions for an improvement of SH value chain.

Lower Mekong Basin of Cambodia



(Mekong Source, 2003)

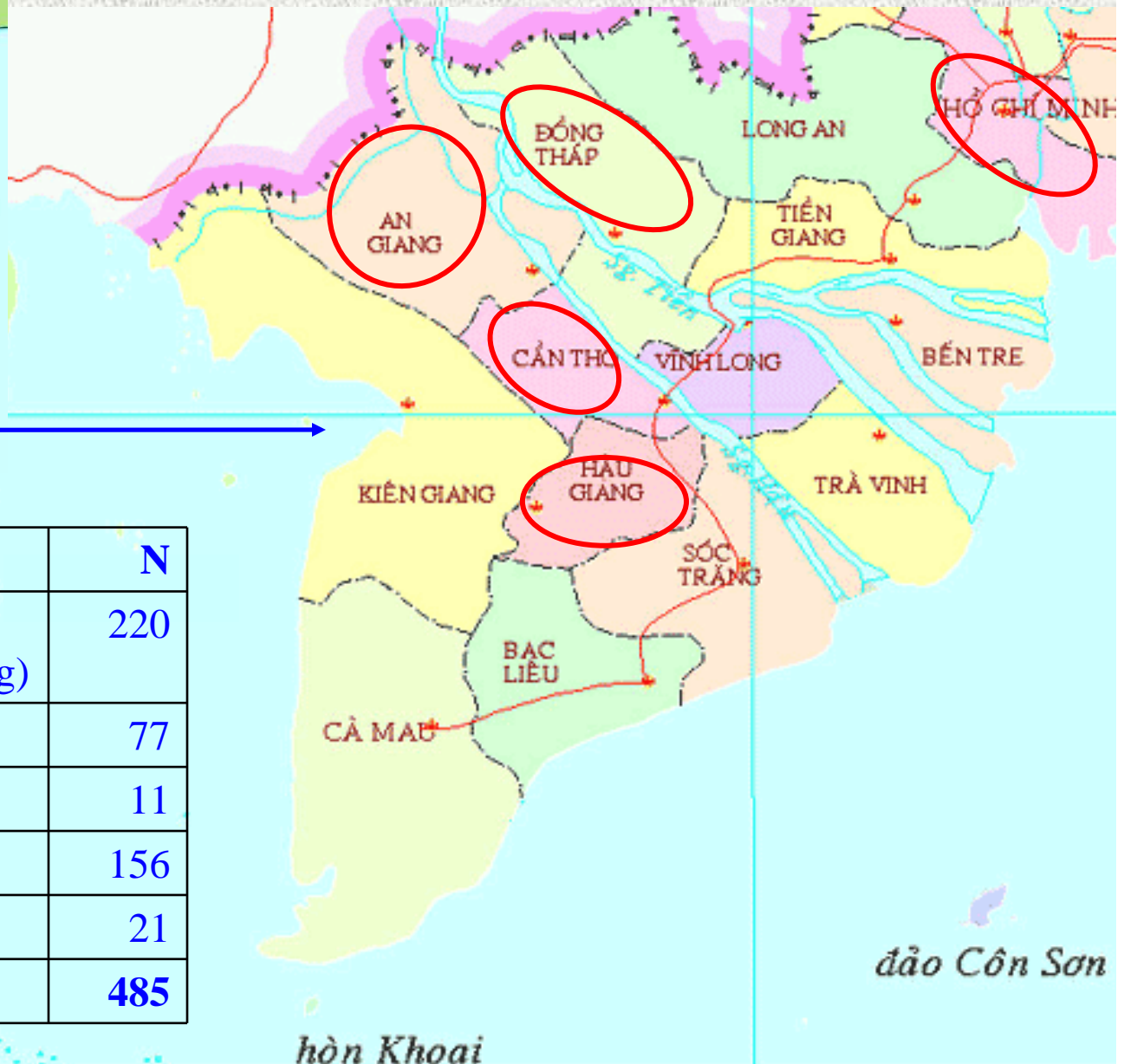
- Wetland: 18,000 km² (45%)

Stakeholders	N
1. Fishers	108
2. Farmers (2005???)	75
3. Traders	65
4. Processors	20
5. End consumers	134
6. Officers/managers	11
Total	413

Lower Mekong Basin of Vietnam



(Mekong Source, 2003)



Stakeholders	N
1. Farmers (5% hatching, 11.4% nursering)	220
2. Traders of fish	77
3. Processors	11
4. End consumers	156
5. Officers/managers	21
Total	485

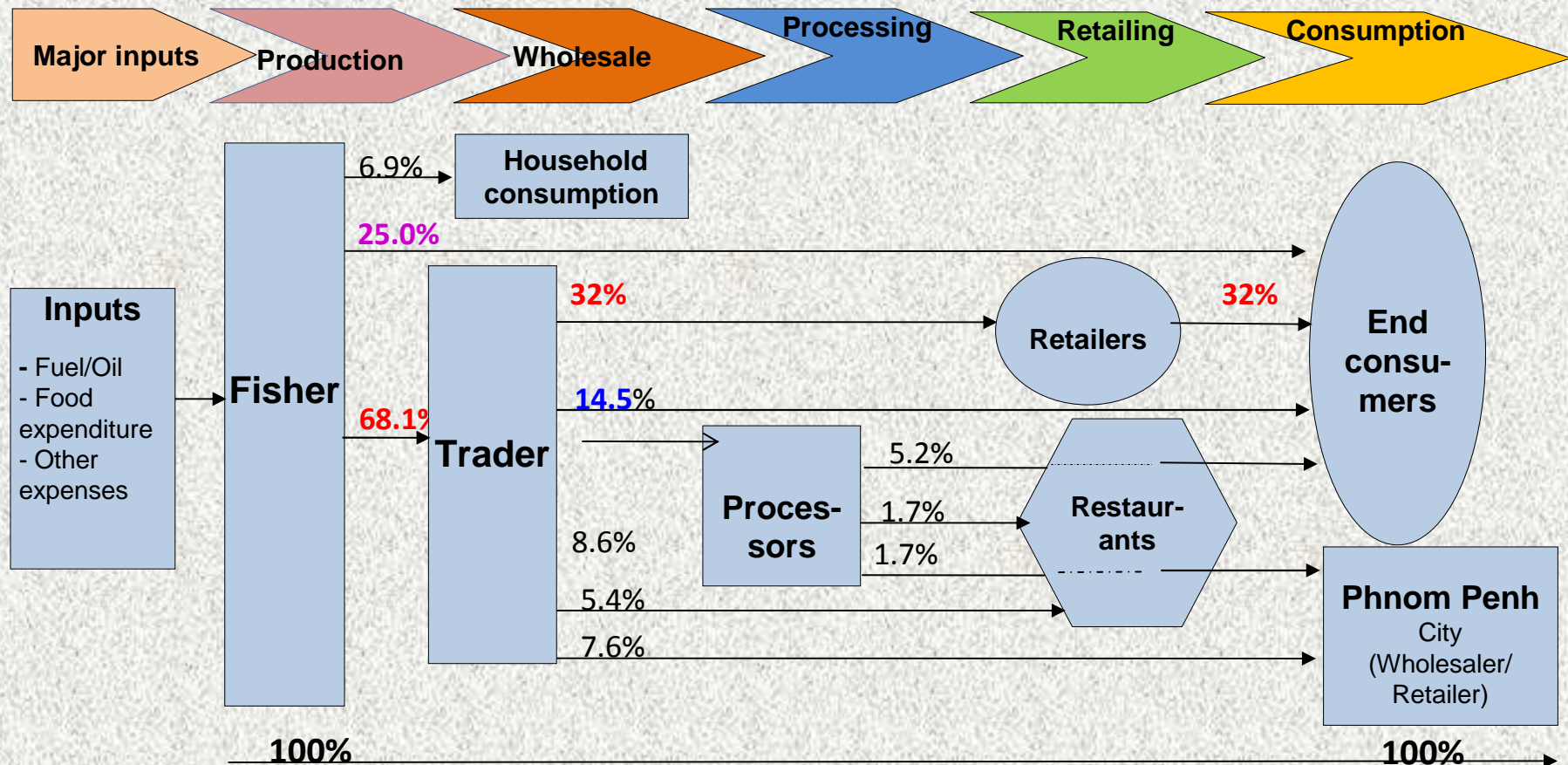
A- VC of CAPTURED SNAKEHEADS - CAMBODIA



- Different types of fishing gears
- 2 seasons: Open (Oct-May) & Closed (Jun-Sep).
- Open season = 2 periods by catch volume.
- Fishers: catch of SH/Household was 7,110 kg/yr (used 128.2 kg).
- Traders: 10 mo./yr; 127.0 kg of fresh & 16.1 kg of processed SH.
- Processors: 4-9 mo/yr; 6-40 times/mo.; 350 kg/time; 27.8 kg salted-dried SH & 0.5 kg of fermented fish/paste.
- Consumers: 6 times/mo.; 0.75kg of fresh/time;
- Women mainly participated in trading and processing SH products.

A.II. Marketing Channels and Cost-Benefits Distribution

2.1. Map of captured SH value chain: => 11 marketing channels



Map of captured snakehead VC in the LMB of Cambodia

A.II. Marketing Channels and Cost-Benefits Distribution (Cont.)

2.1 Channel 1 – Captured SH:

Channel 1: Fishers -> Wholesalers -> Retailers -> Consumers

Description	Fishers	Wholesalers	Retailers	Total
Selling price	1.62	2.11	2.93	
Buying costs	0.57	1.62	2.11	
Added costs	-	0.02	0.25	
Net added value	1.05	0.47	0.57	2.09
<i>% of net added value/kg</i>	50.2	22.5	27.3	100.0
Production/HH/year (ton)	1.41	96.36	5.70	
Total profit (USD/year)	1,480.5	45,289.2	3,249.0	50,018.7
<i>% of NAV/actor/year</i>	3.0	90.5	6.5	100.0

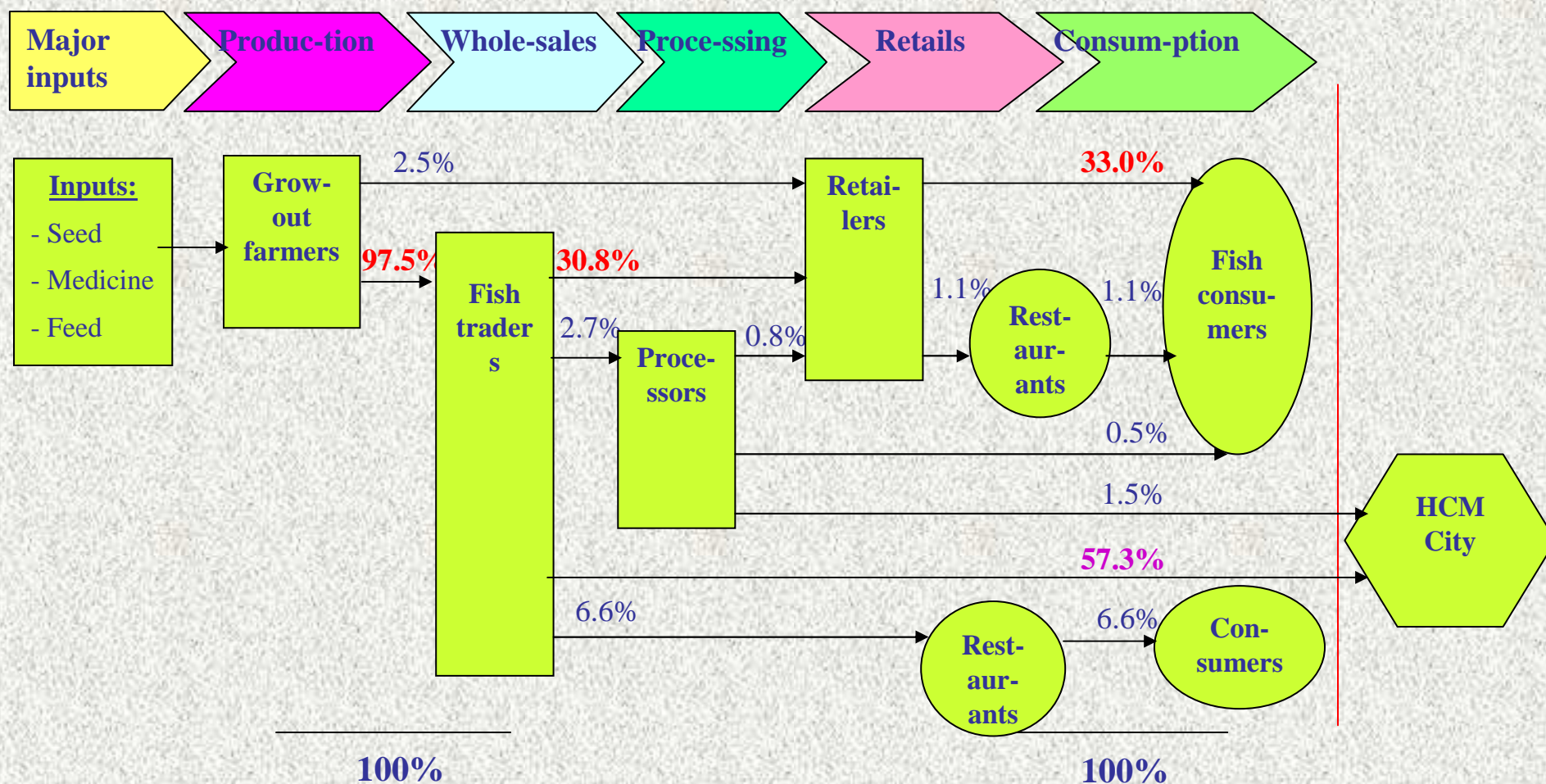
B- VC of CULTURED SNAKEHEADS - VIETNAM



- Hatcheries: Natural breeding, ~30 days/batch; 1,100 fries/kg.
- Nursery: 25-35 days/cycle; Size of 314 fingerlings/kg.
- Kept for nursery & grow-out: 69.4% fries and 89.0% fingerlings.
- Farmers: 5 systems; 4.5-8 months/crop; mainly used LVF (FCR: 3.9-4.3).
- Harvest size: 0.55-1.30 kg/fish; Sold to traders: 80.7%.
- Included/Excluded owned captured LVF: 52.3% & 35.8% had (-) profits.
- Traders: Wholesalers & retailers; retailers traded both fresh, dried & fermented SH.
- Fresh SH/day: 2.2 tons & 17 kg; Processed SH/day: 4.4 kg & 6.3 kg (smaller size).
- Processors: 8.2 tons of raw SH /yr (smaller size); 3 forms of products; Export is very limited.
- Consumers: 61% of living expenditures was for food; Buying SH: 1 time/week; 0.75kg/time.

B.II. Marketing Channels and Cost-Benefits Distribution

2.1. Map of cultured SH value chain: => 10 marketing channels



Map of cultured snakehead VC in the Mekong Delta - Vietnam

BII. Marketing Channels and Cost-Benefits Distribution (Cont.)

2.2. Channel 1 – Cultured SH:

Farmers -> Wholesalers -> Retailers -> Consumers

Description	Farm- ers	Whole- salers	Proces- sors	Retailers	Total
Selling price (USD/kg)	1.65	1.77		2.4	
Buying cost (USD/kg)	1.4	1.65		1.77	
Added cost (USD/kg)	-	0.051		0.08	
Net added value (USD/kg)	0.251	0.069		0.554	0.874
% Net added value/kg	28.8	7.8		63.4	100.0
Output/actor/year (tons)	14.1	728.2		6.0	
Total profit/actor/yr (USD)	3,542.9	49,931.4		3,325.7	
% NAV/actor/year	6.2	87.9		5.9	100.0

C. UPGRADING of the VCs of SH in the LMB:

- Various guidelines (also known as manuals or handbooks) exist for carrying out VCA => cover 4 broad stages of VCA (Fig.2).
- + Appraisal of VCs and related information, e.g., choosing products, areas to work, and partners; conducting surveys to describe VCs and product sub-sectors; rapid market appraisals, and data analysis.
- + Design of interventions to improve VC performances, including technologies, institutional innovations, and policies.

Figure 2: Stages of value chain analysis (Nang'ole, E.; D. Mithöfer & S. Franzel, 2011)

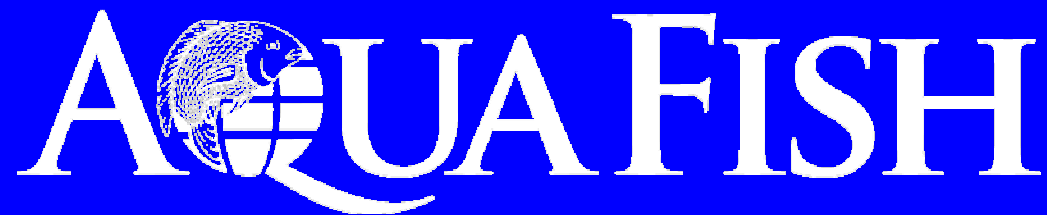


C. Upgrading the VCs (cont.):

1. To establish clubs or cooperatives of chain actors within the SH industry and to develop the linkages for better production and marketing of SH.
2. To have a good management of fish traders and better provision of market information to all chain actors. It is vital to ensure that each chain actor can possibly obtain the same benefit to sustain VCs.
3. To better manage the quality of fish by providing more proper conservative technologies (death rate and weight loss), processing techniques (for processors), and to increase export opportunities.
4. To have a better planning and supportive policies for further development of this industry. Better export-oriented policies in association with financial policies are necessary to increase the production of SH as well as to reduce the risks of the chain actors.

Thanks for your attention & comments!

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