



Shrimp Farm Health Survey, Andhra Pradesh India

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WP 2. Scoping and overview of production systems, PHP markets and usage

- T2.1 Systems overview of farming systems and sample-frame development.
- T2.2 Survey of farmer health management practices and PHP usage.
- T2.3 Value Chain Analysis for PHP including regulatory assessment.



T2.1 Systems overview of farming systems and sample-frame development

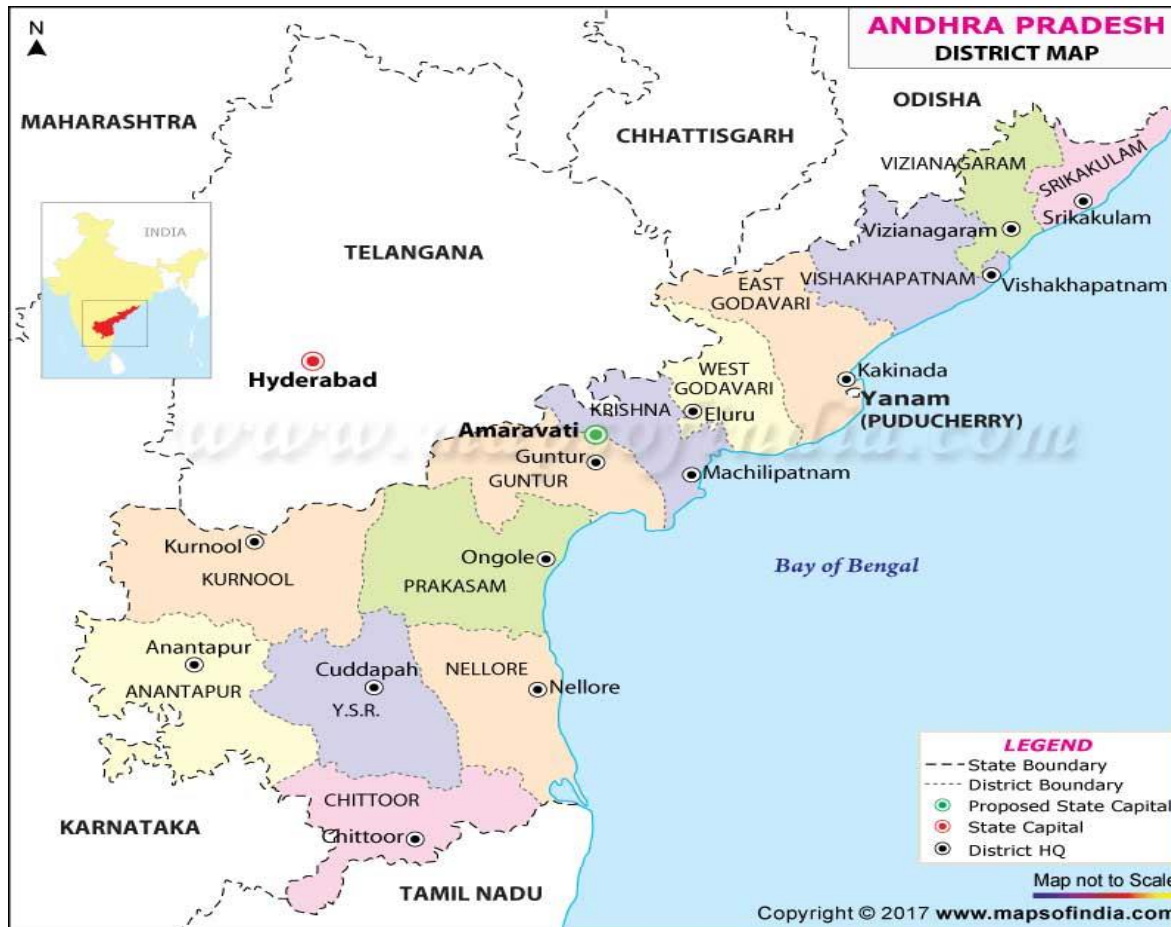
- Farm list from Coastal Aquaculture Authority (CAA) Registration.
- Farms registered with the Marine Products Exports development Authority (MPEDA).
- Geographical distribution of shrimp farms.

T2.1 Systems overview of farming systems and sample-frame development

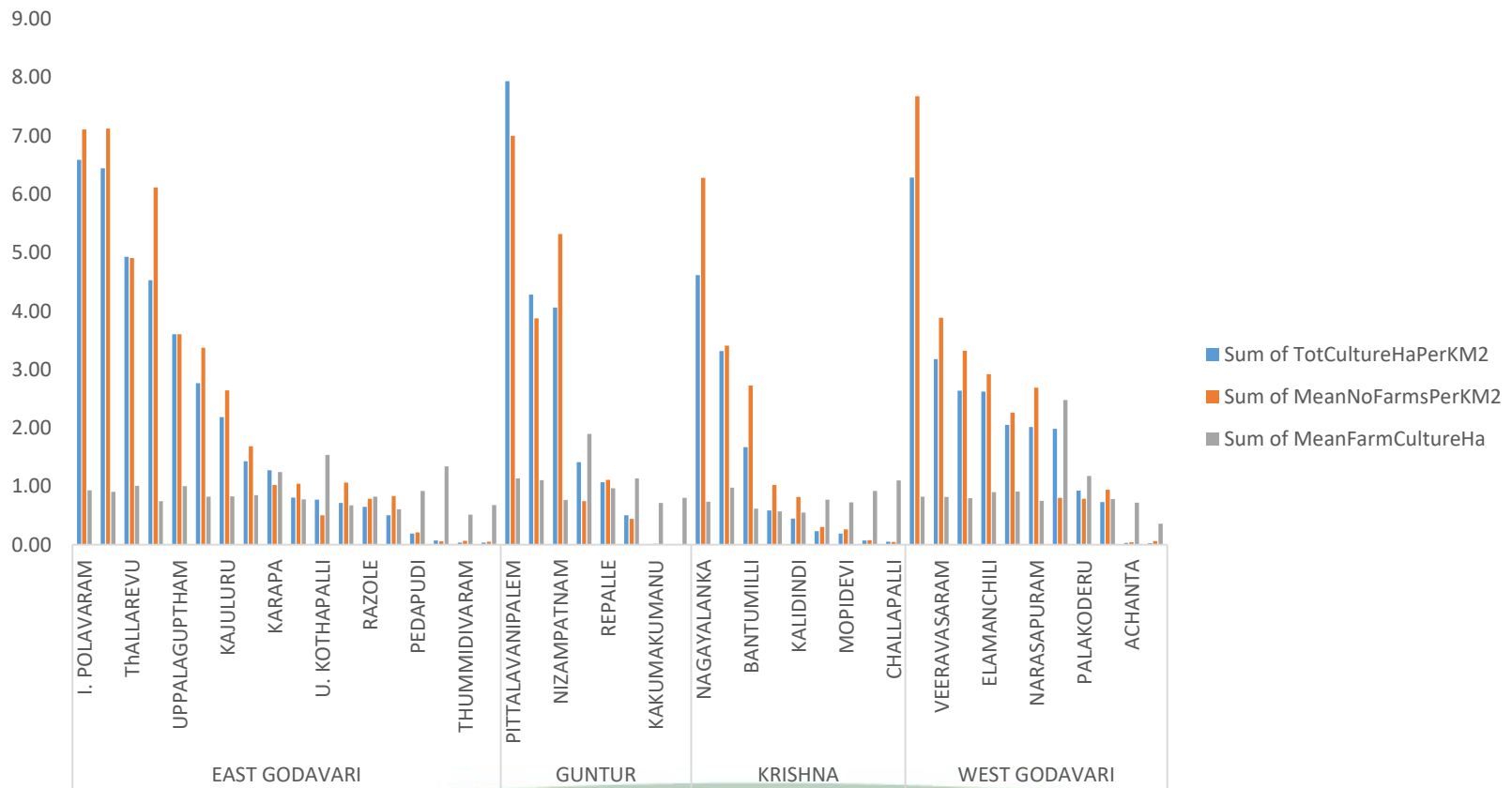
AP coastal region	North	Central	South	Total
Districts	Sri Kakulam Vizianagaram Vishakhapatnam	E. Godavari W. Godvari Krishna Guntur	Prakasam Nellore	9
Major tidal rivers		Godavari Krishna	Penna	3
Minor tidal rivers	Gotta Maduvalass		Paleru Rallapadu	4
Length coast (km)	323	297	351	
Total No Farms	389	12810	4969	
Total culture area Farms (ha)	763.3	11,389.8	6,578.4	18,731.4
Shrimp hatcheries	2	61	65	128
Hatchery capacity (Mill PL/ yr)	110	3,418	5,706	9,230

CAA registered shrimp farms in Andhra Pradesh to July 2017 (Source CAA)

T2.1 Systems overview of farming systems and sample-frame development



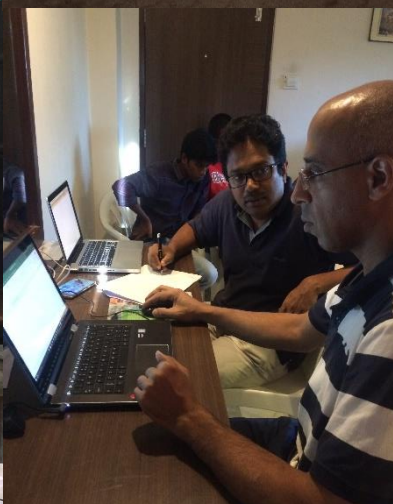
T.2.2 Survey of farmer health management practices and PHP usage



T.2.2 Survey of farmer health management practices and PHP usage

- PPS sampling
- QS preparation
- Recruiting enumerators
- Training of enumerators
- QS piloting

T.2.2 Survey of farmer health management practices and PHP usage



T.2.2 Survey of farmer health management practices and PHP usage

- Field visits, 250 farms in 4 districts in AP
- Database development
- Electronic data entry
- Data analysis (in progress)

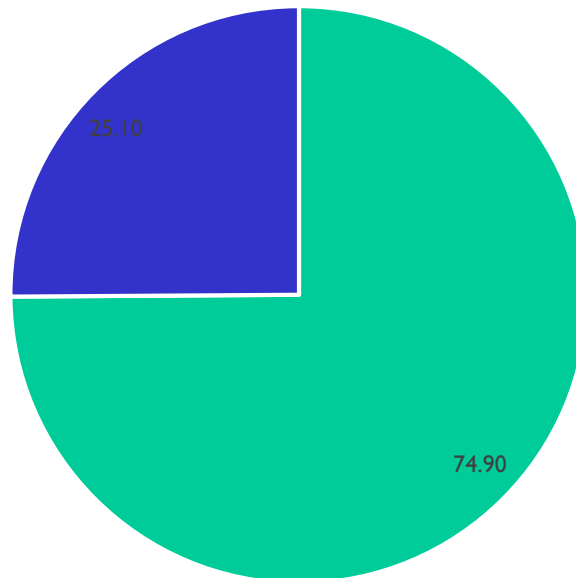


Main characteristics of shrimp farms in central AP: **Land and WSA area**

Characteristics	Land area/Acre	WSA/Acre
Min	0.5	0.4
Max	200	150
Average (SD)	19.63 (28.95)	14.90(21.18)



Main characteristics of shrimp farms in central AP: **Farm ownership**



■ Owned ■ Leased

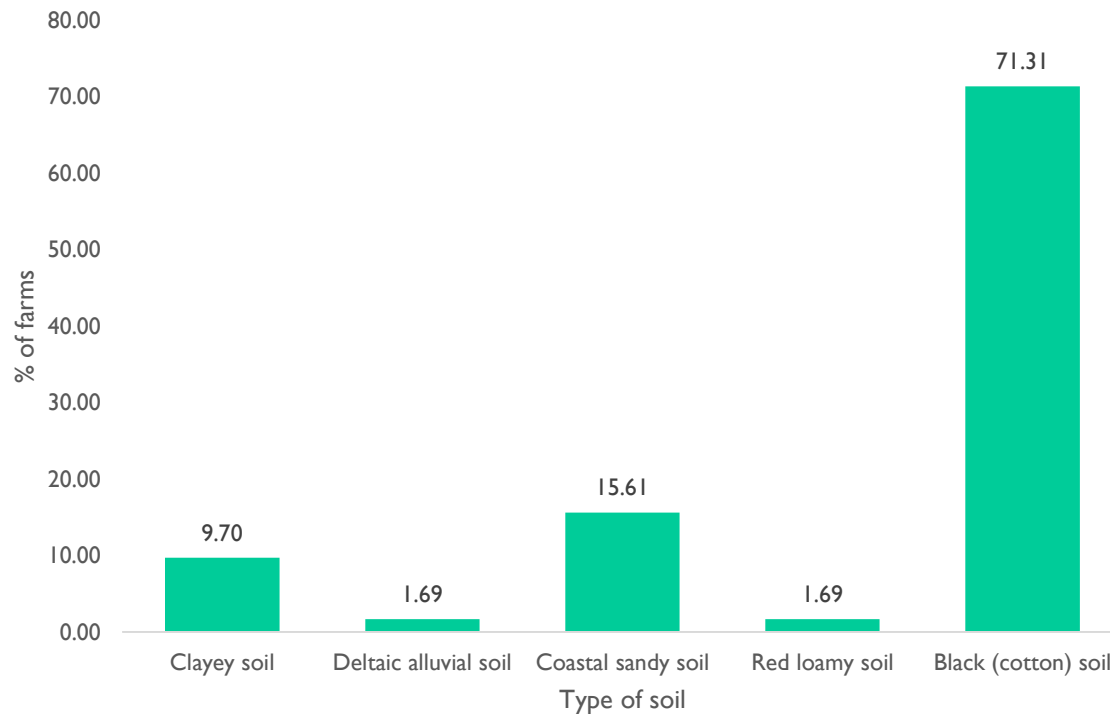


Main characteristics of shrimp farms in central AP: **Type of ponds**

- The number of culture ponds per farm ranged from 1 to 75 (average 8).
- Less than **30%** of farms have reservoir ponds.
- Less than **5%** of farms have a dedicated nursery ponds.
- About **1%** have Effluent Treatment Ponds.

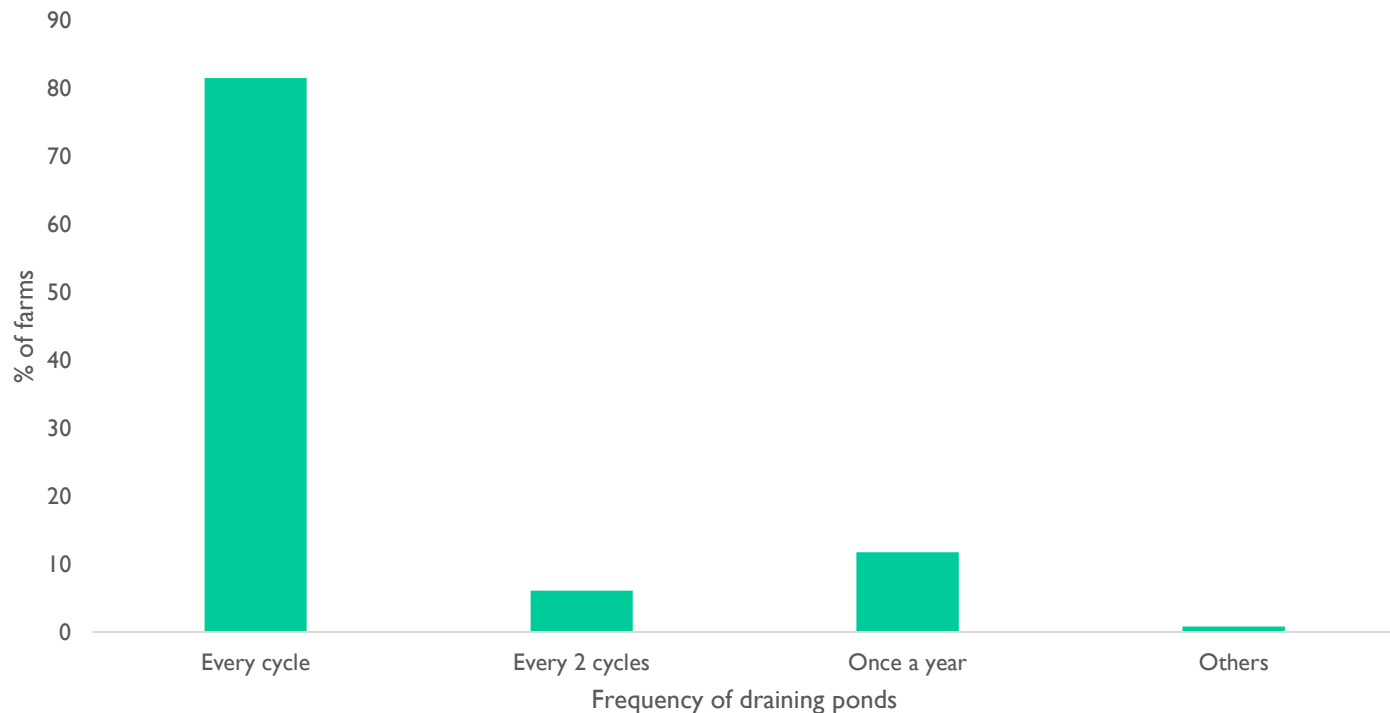


Main characteristics of shrimp farms in central AP: **Type of soil**



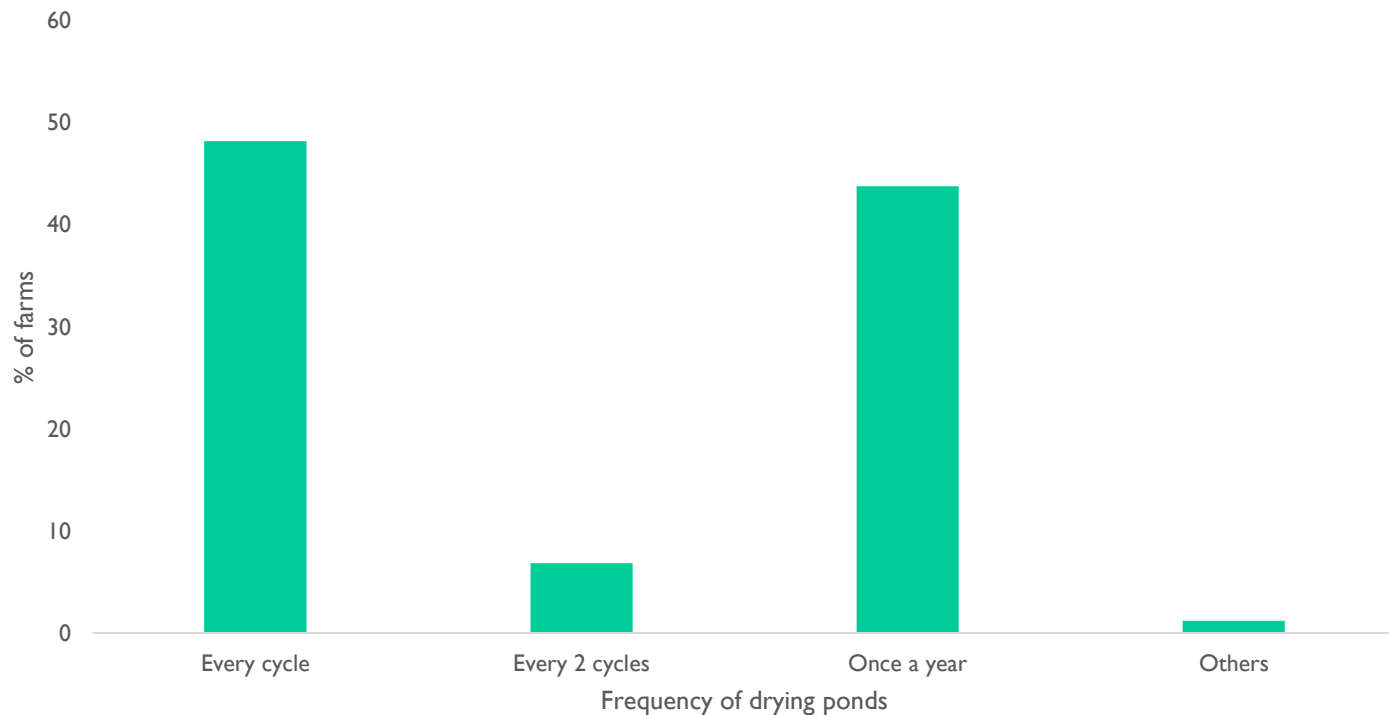


Main characteristics of shrimp farms in central AP: Frequency of draining water from ponds



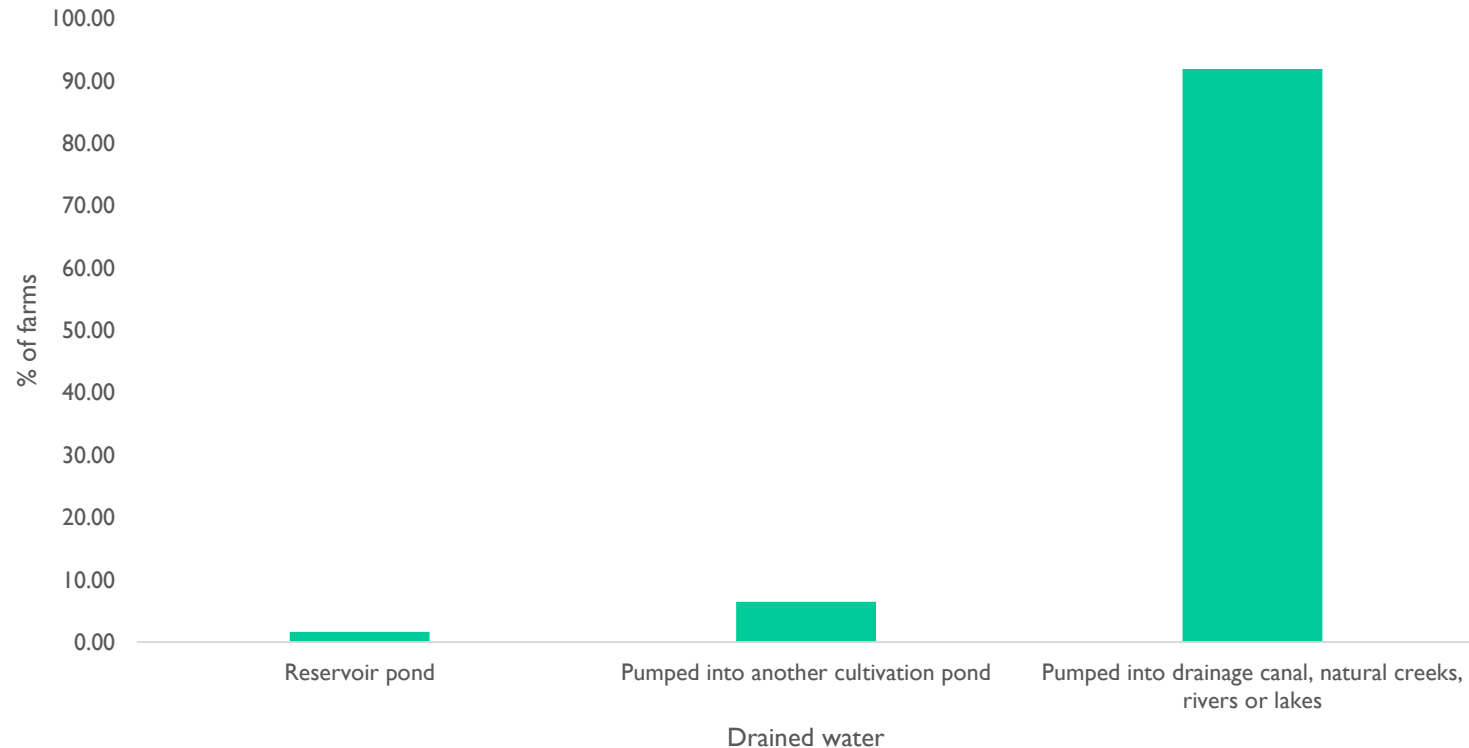


Main characteristics of shrimp farms in central AP: **Frequency of drying ponds**





Main characteristics of shrimp farms in central AP: **Drained water**





Main characteristics of shrimp farms in central AP: **Pond depth**

Characteristics	Pond depth Summer/Feet	Pond depth Winter/Feet
Min	1	1.5
Max	10	10
Average (SD)	4.93 (1.03)	4.59 (1.05)

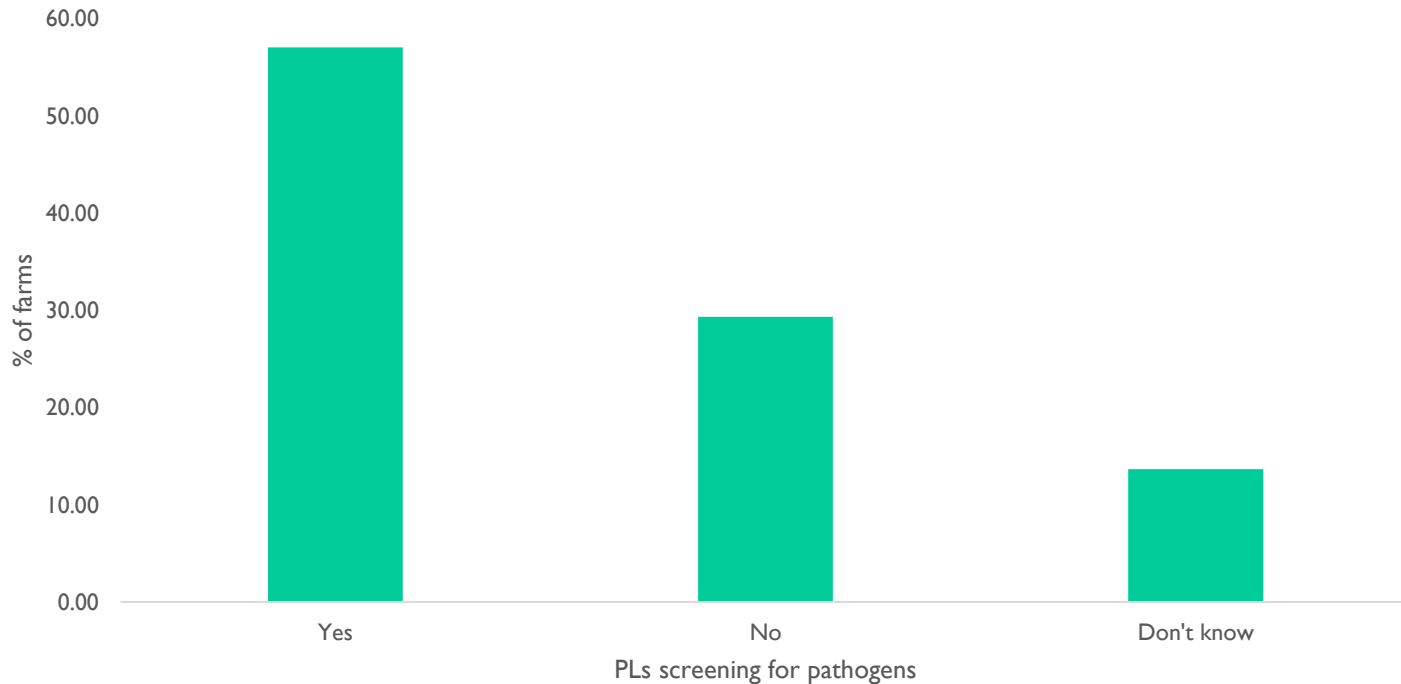


Main characteristics of shrimp farms in central AP: **Source of PLs**





Main characteristics of shrimp farms in central AP: **Screening of PLs for pathogens**



Main characteristics of shrimp farms in central AP: **Water salinity**

- Water salinity in culture ponds ranged from 0 ppt to 30 ppt.
- Average pond salinity was about 10 ppt.
- Adjustment of water salinity by mixing from different water sources.
- Most of the farms have borehole water with a depth ranged from 15 to 650 Ft (Average 220 Ft).



Main characteristics of shrimp farms in central AP: **Water salinity**



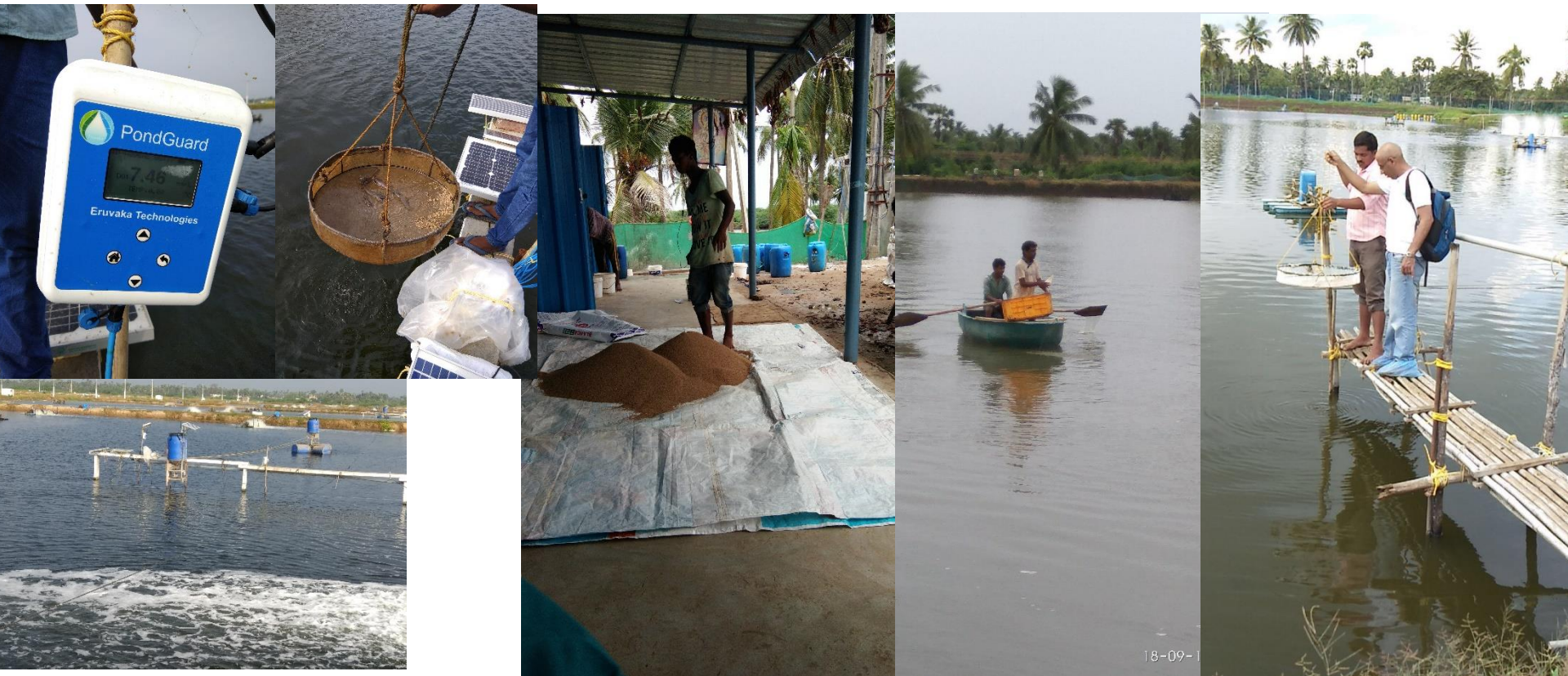
Main characteristics of shrimp farms in central AP: **Shrimp feed**

- Almost all farms used commercial shrimp feed.
- Farmers buy feed from **19** feed companies.
- The most commonly used feed brand is Avanti (**32.7%**) followed by CP (**21.5%**).
- More than **80%** of farmers used **plantation** (jaggery, de-oiled bran, ground nut cake and yeast).

Main characteristics of shrimp farms in central AP: **Shrimp feed ingredients**



Main characteristics of shrimp farms in central AP: **Shrimp feed**



Main characteristics of shrimp farms in central AP: **Aeriation**

Types of aerators

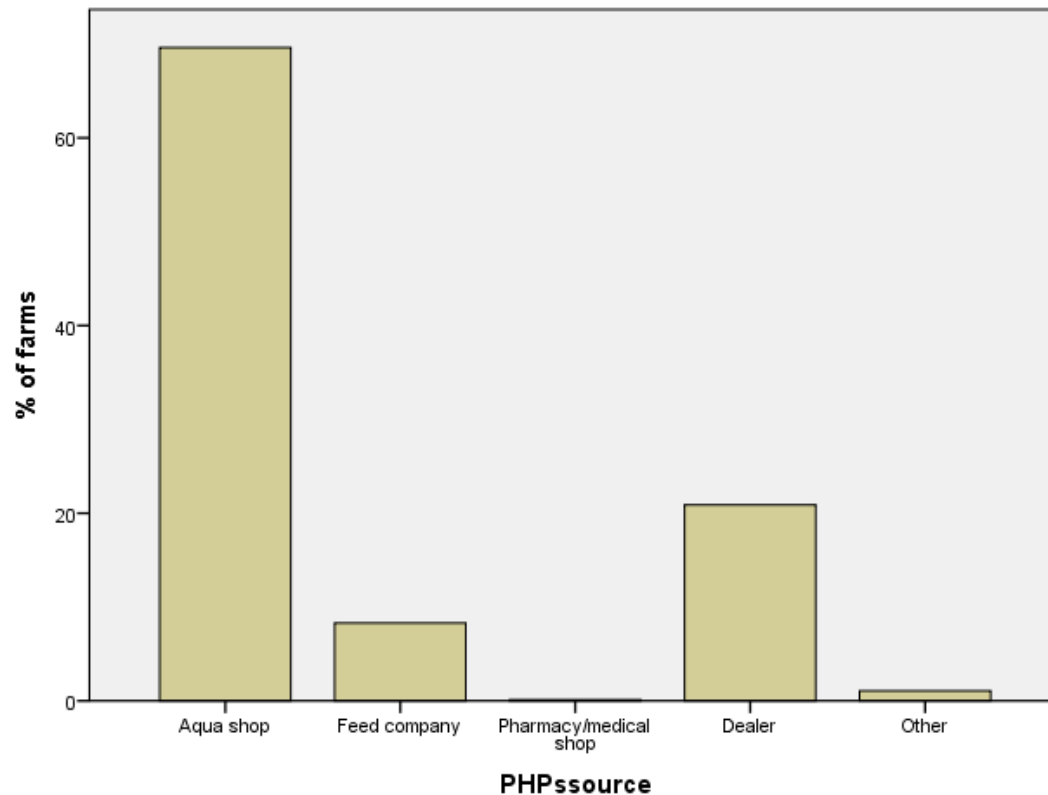
Frequency

Number of hours per day



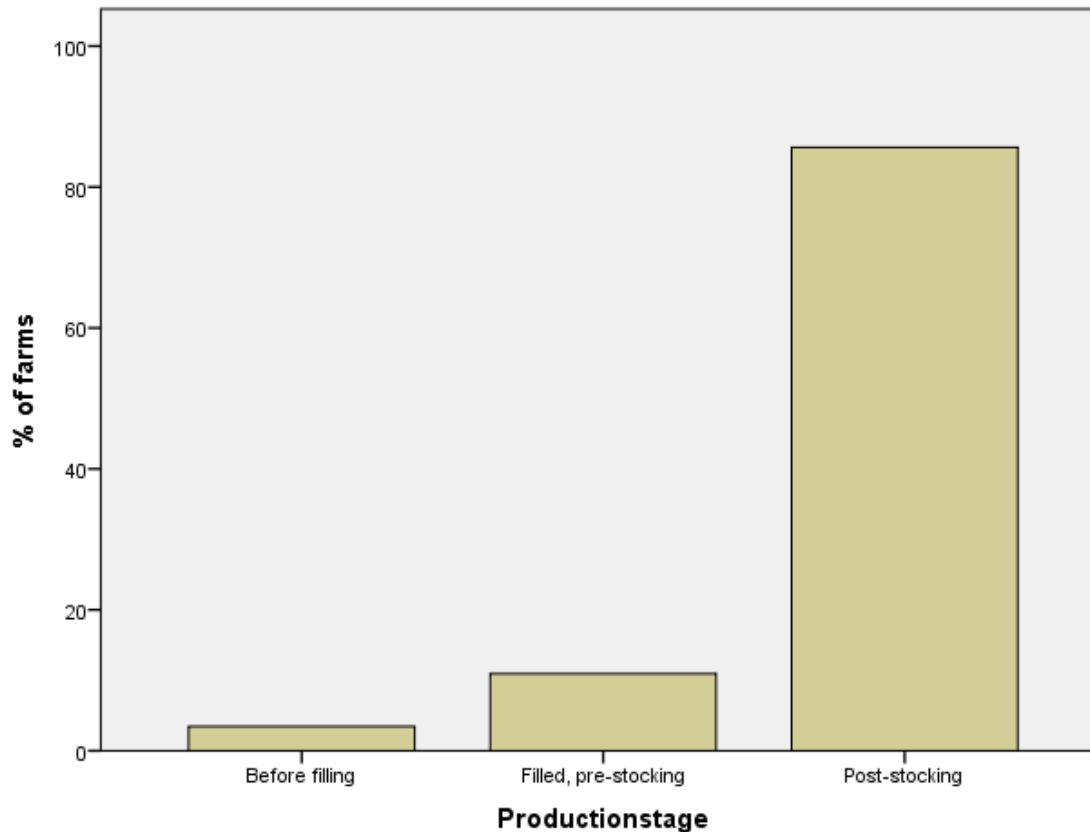


Main characteristics of shrimp farms in central AP: Use of PHP (source)



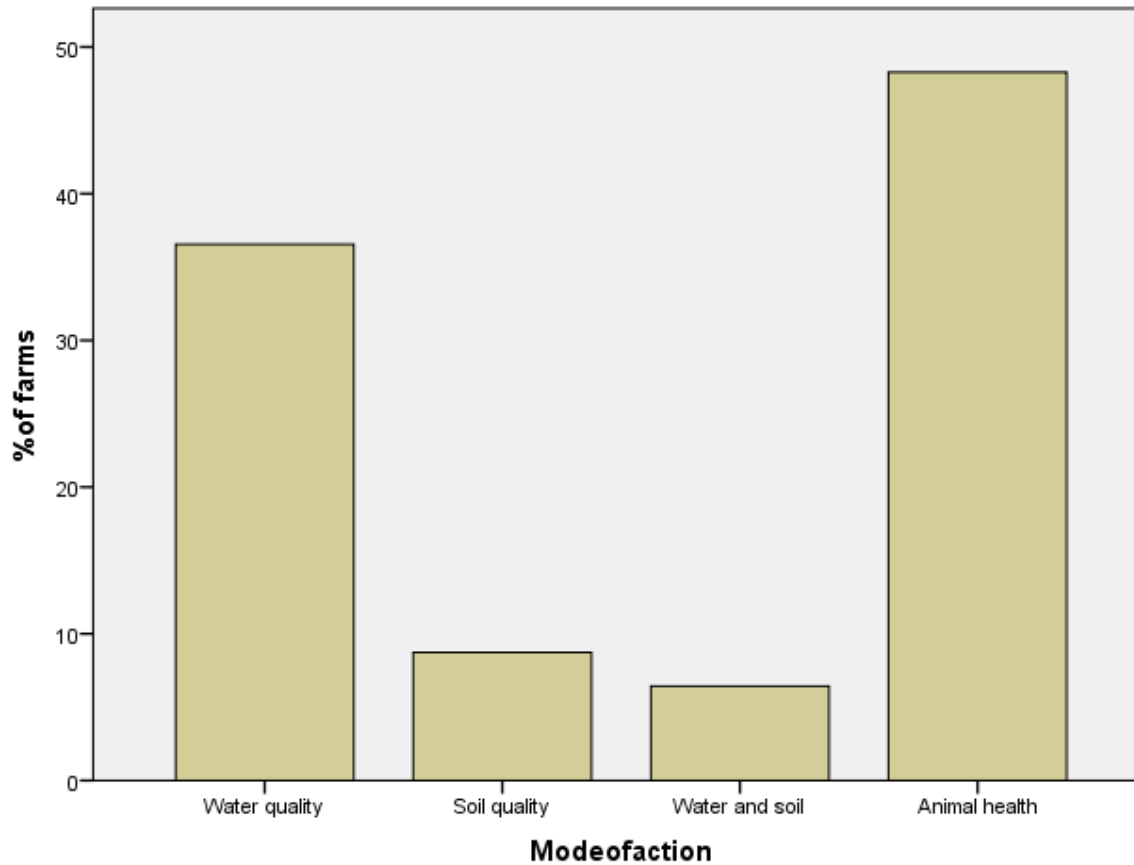


Main characteristics of shrimp farms in central AP: Use of PHP (production stage)

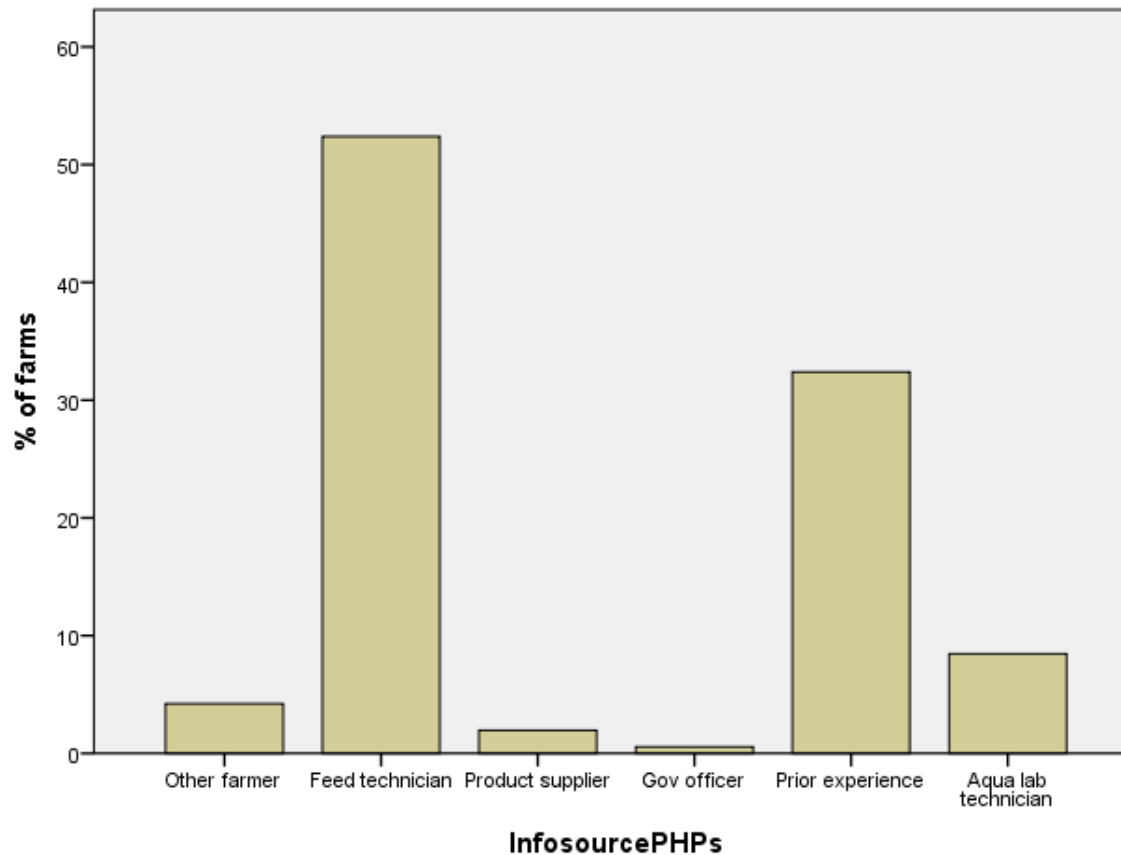




Main characteristics of shrimp farms in central AP: Use of PHP (Mode of action)

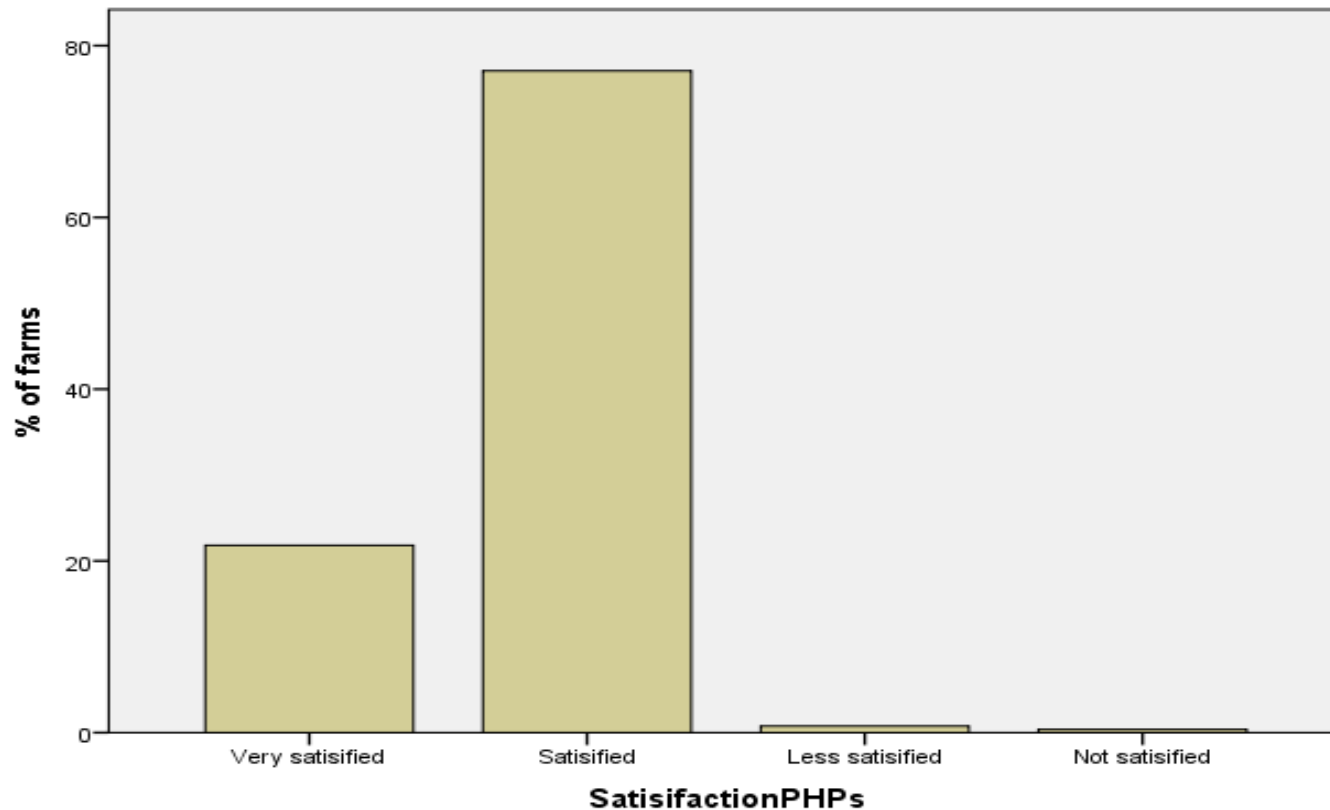


Main characteristics of shrimp farms in central AP: Use of PHP (Source of information)

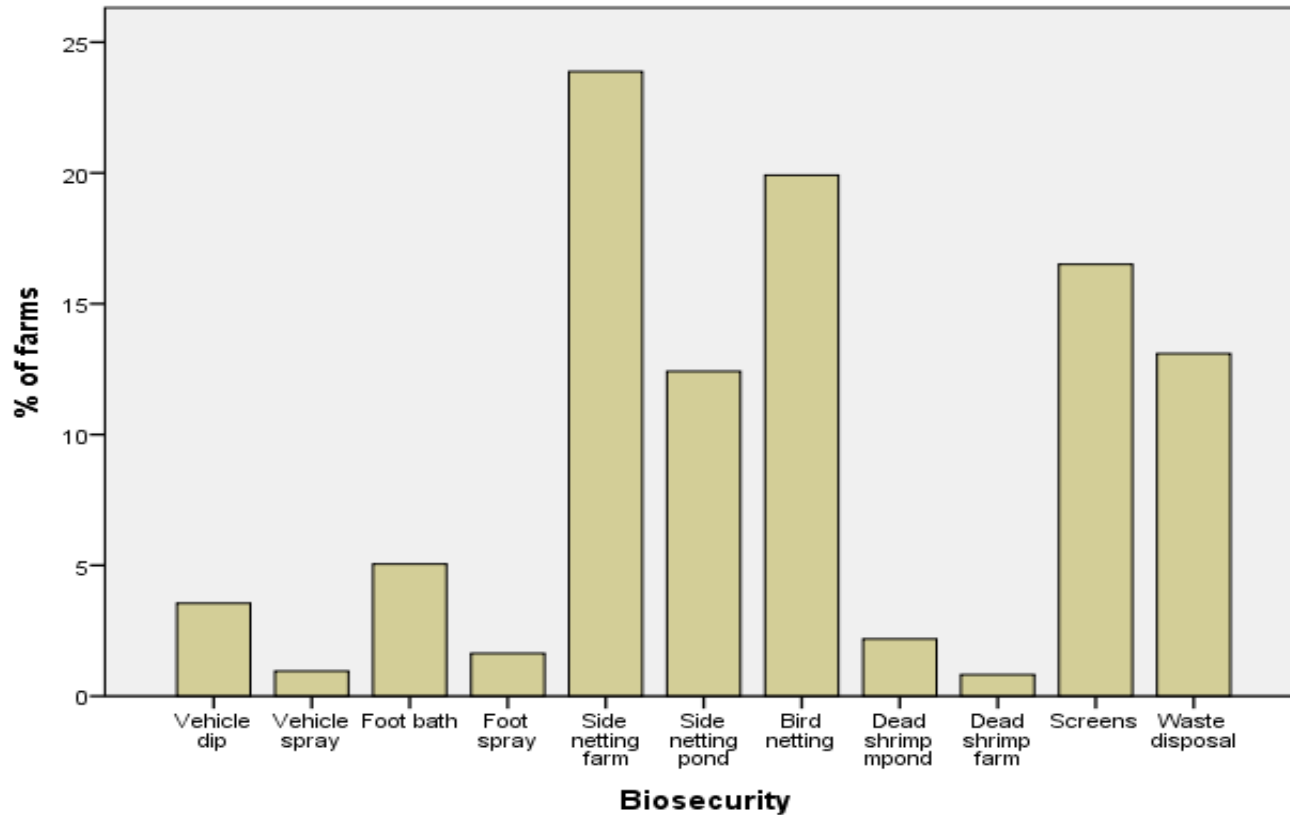




Main characteristics of shrimp farms in central AP: Use of PHP (Farmer satisfaction)



Main characteristics of shrimp farms in central AP: **Observed biosecurity**



Main characteristics of shrimp farms in central AP: **Observed biosecurity**



Main characteristics of shrimp farms in central AP: **Observed biosecurity**





Main characteristics of shrimp farms in central AP: **Conclusions**

- About **60%** of farms are **10** acres or less.
- There is a lack of biosecurity features in small scale farms.
- **Feed technicians** are the most likely source of information particularly for small scale farmers.
- High percentage of farmers are using **PHP** as a **prophylactic**.



Acknowledgment





Acknowledgment



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of India

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