SHRIMP HEALTH MANAGEMENT

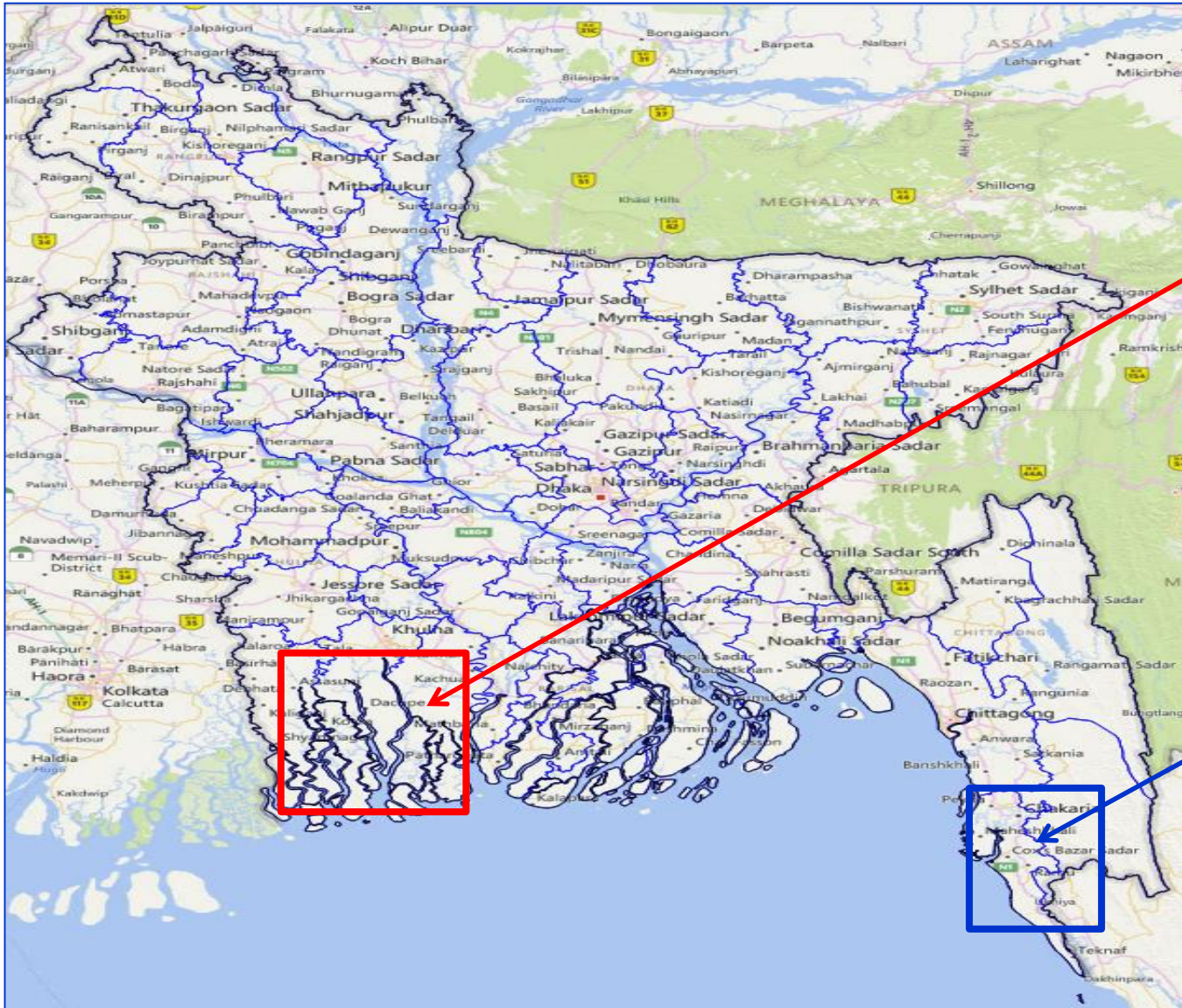**Hazrat Ali, Ahmed Jaman, Meezanur Rahman**

WORLDFISH BANGLADESH

PRESENTATION OUTLINE

- Seed production and farm locations

- Shrimp farming system overview

- Shrimp health management survey

- Sample frame development

- Data collection

- PHP use pattern at farm level

- Health management in hatchery and nursery

- Hatchery health products

HATCHERY AND FARM LOCATIONS

Grow-out farms

Hatchery (mainly)

SHRIMP FARMING SYSTEM OVERVIEW

- **Intensive-monoculture**

- **Extensive-polyculture with other fish**

- **Semi-intensive-polyculture with prawn and other fish**

SHRIMP HEALTH MANAGEMENT SURVEY

Sample frame development

- **Intensive shrimp farms-124**

    -Farm source: DoF, CP, KI, Google earth

- **Extensive shrimp farms-331 (SEAT 2011, 3 clusters)**

- **Semi-intensive shrimp farms-294 (SEAT 2011, 3 clusters)**

Farm scale criteria	Small	Medium	Large
Farm area operation (ha)	<0.80	0.80-2.0	>2.0
Land ownership	Own	Own/leased in	Own/leased in
Management	Household or extended family	Household or salaried manager	Salaried manager
Full time labor (non-family)	No	No or Yes	Yes

DATA COLLECTION

- **Semi-structured QS used for data collection**
  - **-Farm and interviewee details (GPS location)**
  - **-PHPs and other chemicals uses pattern**
  - **-Production characteristics**
  - **-Diseases**
  - **-Water quality and management**
  - **-Production costs**
  - **-Farmer knowledge level**
  - **-Biosecurity observation**
  - **-Salinity level**

- **Data collection was focused on last summer crop (2017)**

- 3 day long training session organized for data enumerators including field test

- Data collection period: 12th October-27th December 2017

- Intensive shrimp farms as much as possible

- Extensive and semi-intensive farms were randomly selected, random numbers were generated by using following website- https://www.random.org/
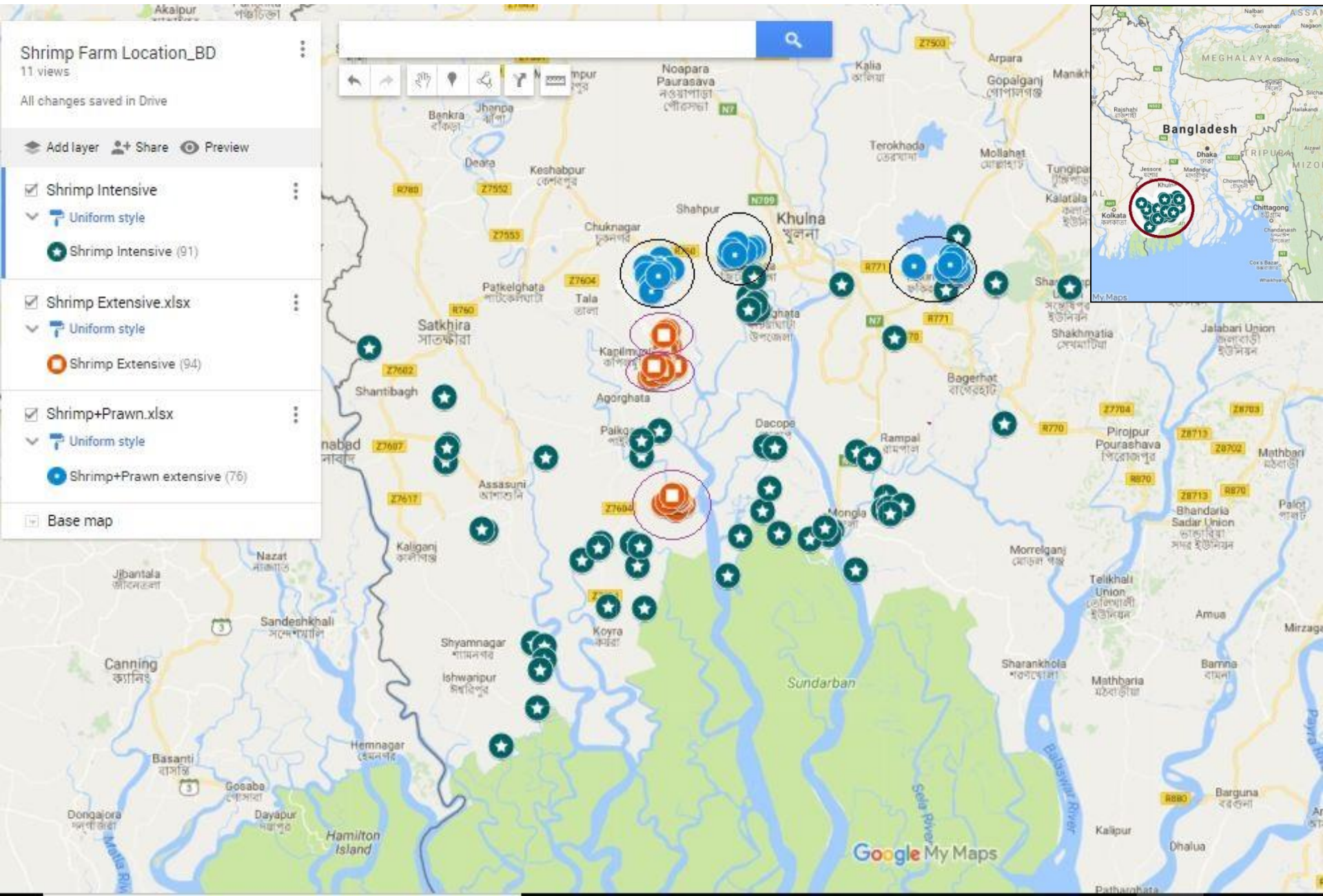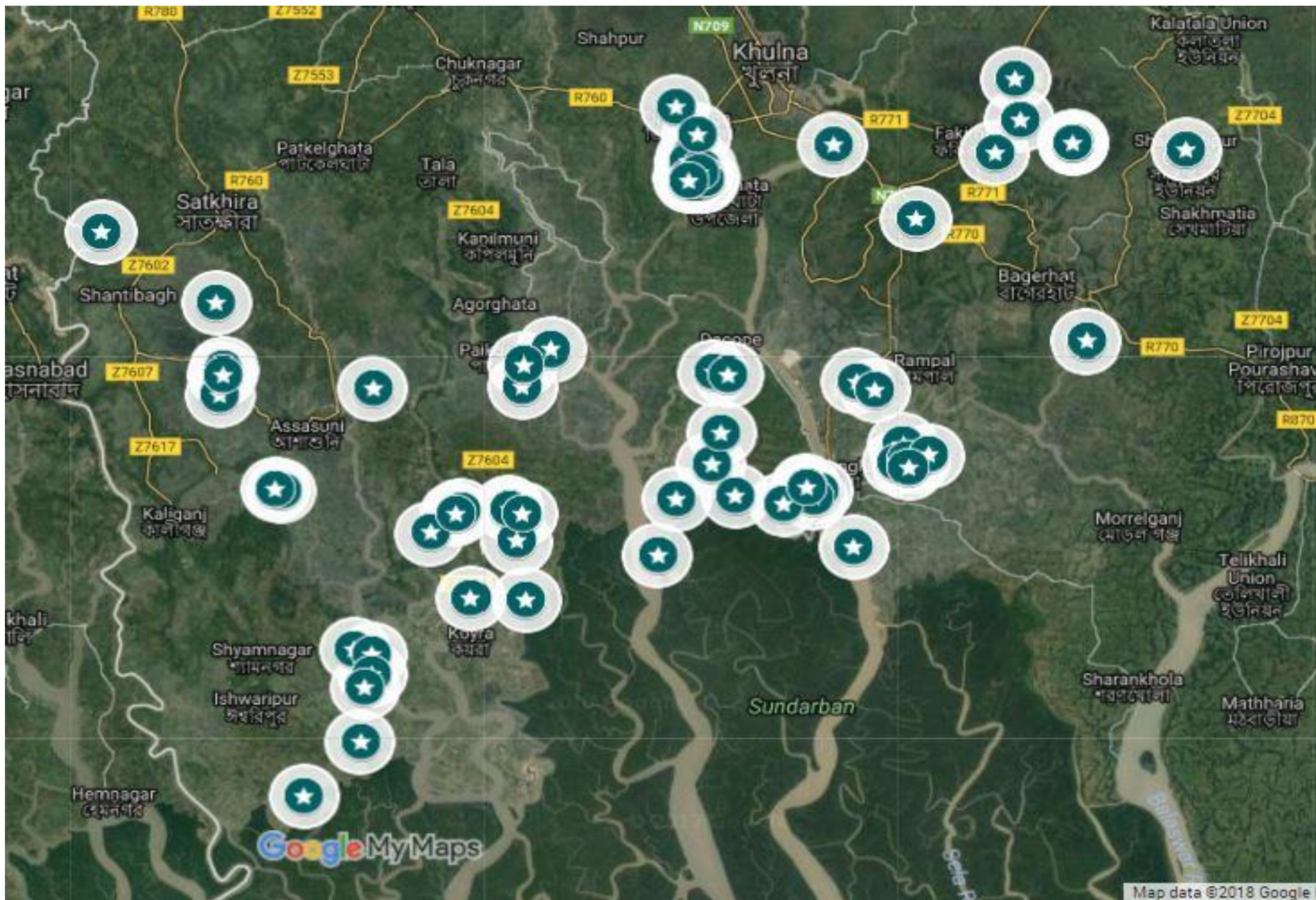
NUMBER OF FARMS SURVEYED

Technology	Cluster	# of farm recorded	# of farm surveyed
Intensive shrimp **Extensive shrimp**	SW BD	124	**91**
	Magurkhali	112	27
	Putimari	110	34
	Bashakhali	109	33
	Sub-total	331	**94**
Semi-intensive shrimp and prawn	Faltita Godown	110	30
	Kultola	84	31
	Gutudia	100	15
	Sub-total	294	**76**
	Total	**749**	**261**

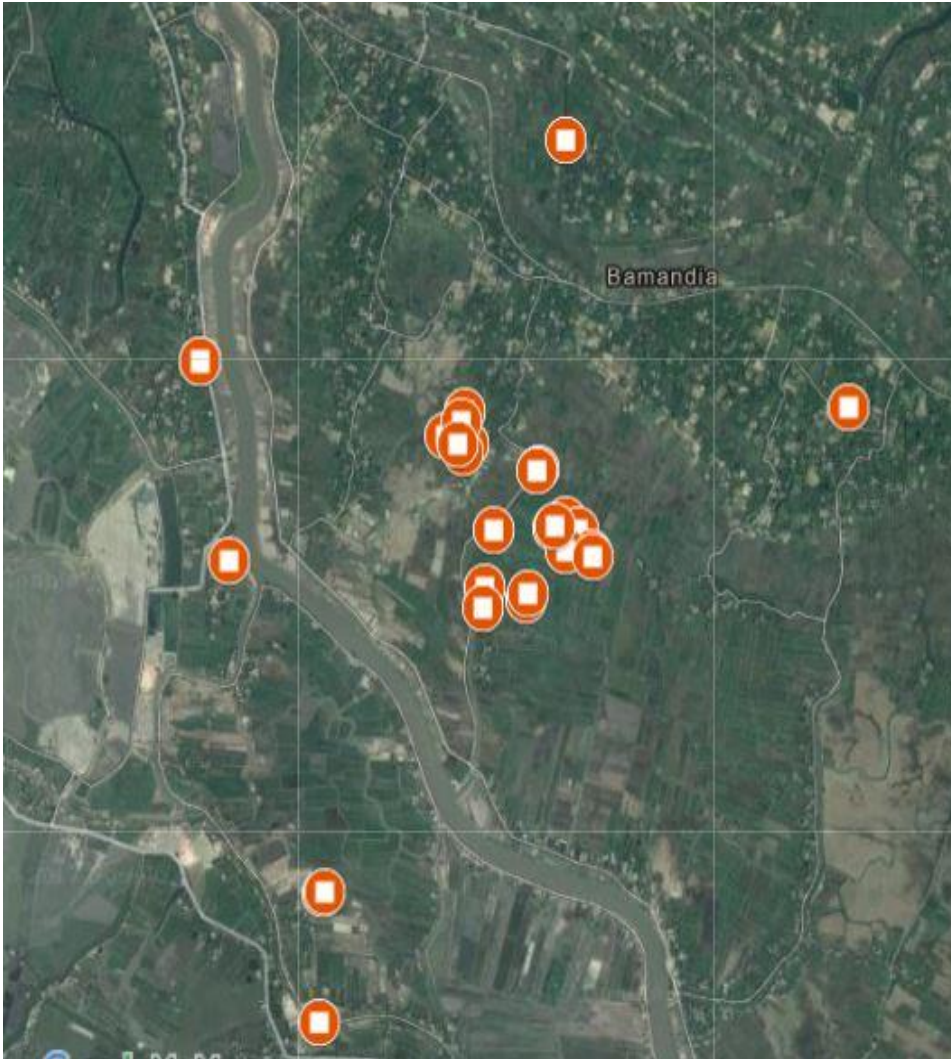| Farm Scaling	Intensive shrimp	Extensive shrimp	Semi-intensive shrimp and prawn	Total
Small	--	39	52	**91**
Medium	--	35	20	**55**
Large	--	20	4	**24**
Total	**91**	**94**	**76**	**261**

LOCATION OF SURVEYED FARMS

LOCATION OF INTENSIVE FARMS

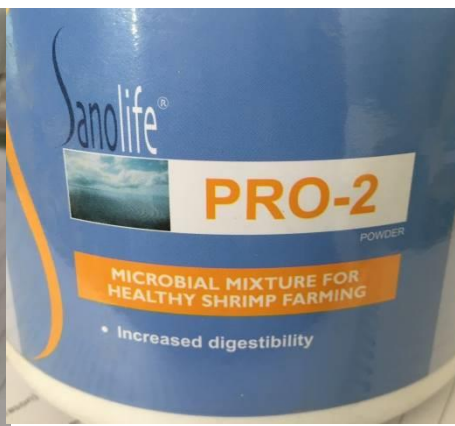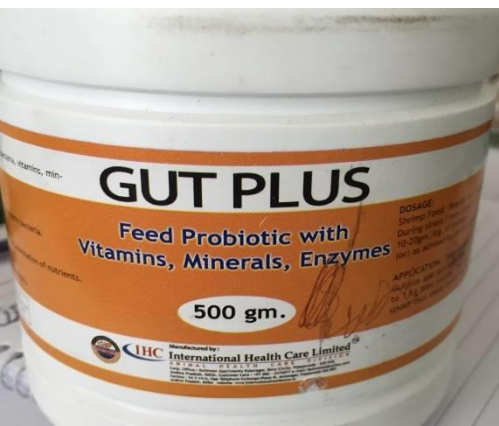# LOCATION OF EXTENSIVE AND SEMI-INTENSIVE FARMS

Extensive shrimp

Semi-intensive shrimp and prawn

PHP USE PATTERN AT FARM LEVEL

- **Extensive shrimp/semi-intensive shrimp and prawn farms rarely use PHPs**

- **Intensive shrimp farms routinely used PHPs mostly as preventative measure**
  - **-Water and soil probiotics**
  - **-Gut probiotics**
  - **-Immunostimulants**

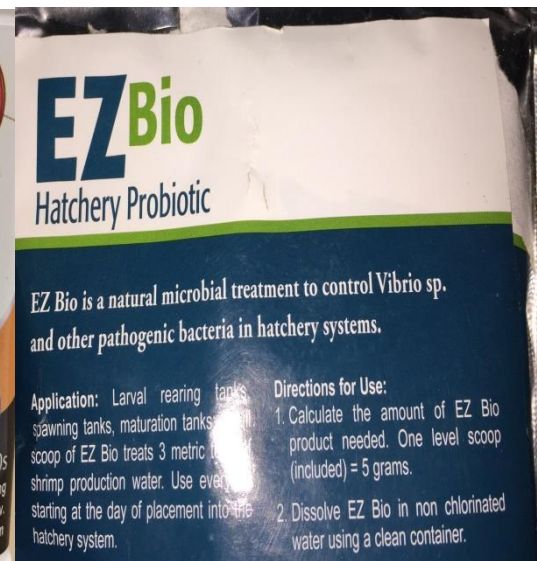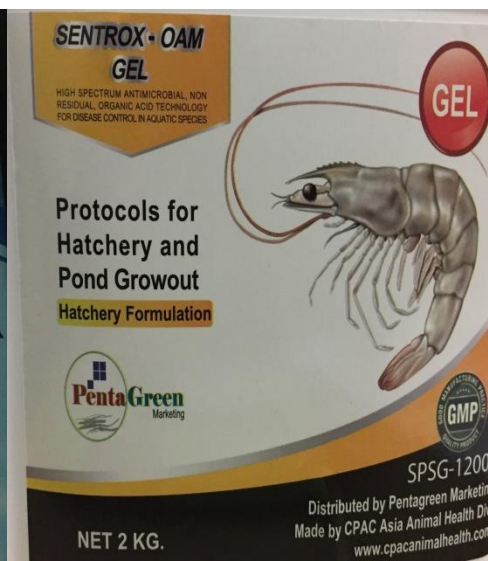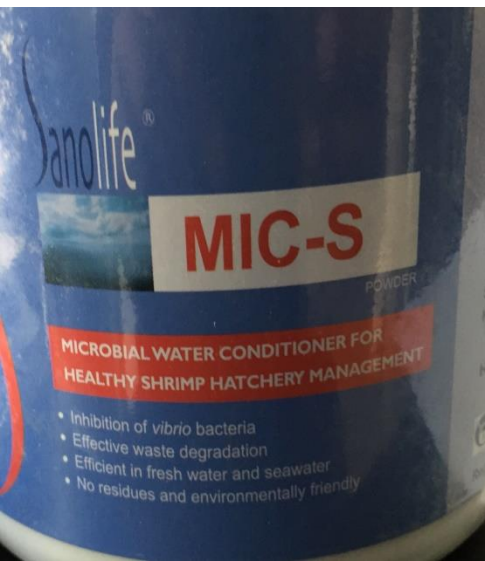- **Mainly follow PHPs supplier technician instructions**

HEALTH MANAGEMENT IN HATCHERY AND NURSERY

- **Total number of hatchery- 57 (CoxsBazar-33, Khulna/Satkhira-24)**

- **Discussion with product suppliers, hatchery owners, DoF officials, hatchery association**

- **Hatchery GPS location collection ongoing**

HATCHERY HEALTH PRODUCTS

- **12 feed and PHPs importer and distributors based in CoxsBazar**

- **8-9 distributors imported probiotics**

- **35+ branded probiotics are available for hatchery**

- **Probiotics were mainly for water quality control**

- **Planning for hatchery health management survey**

SOME PHOTOS DURING DATA COLLECTION

Thank You