

Indian Shrimp Farming “Today and Tomorrow”



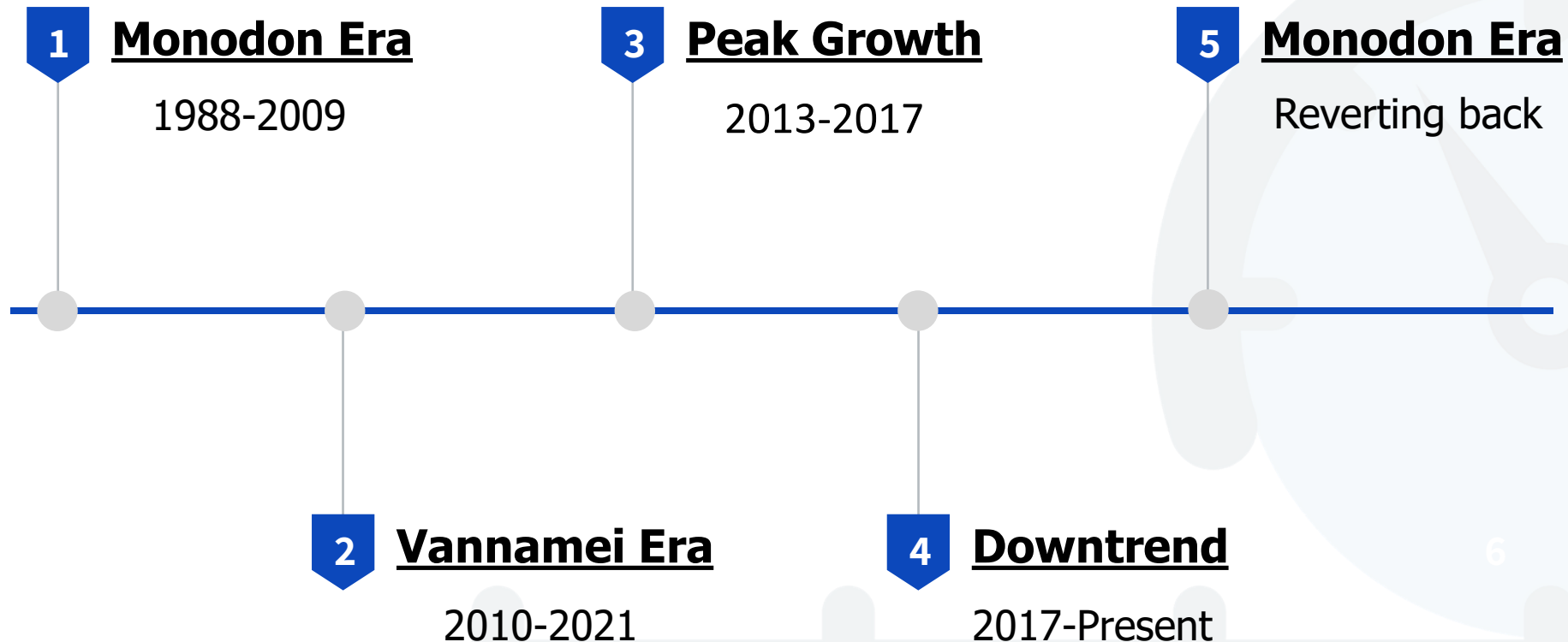
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Shrimp farming in India

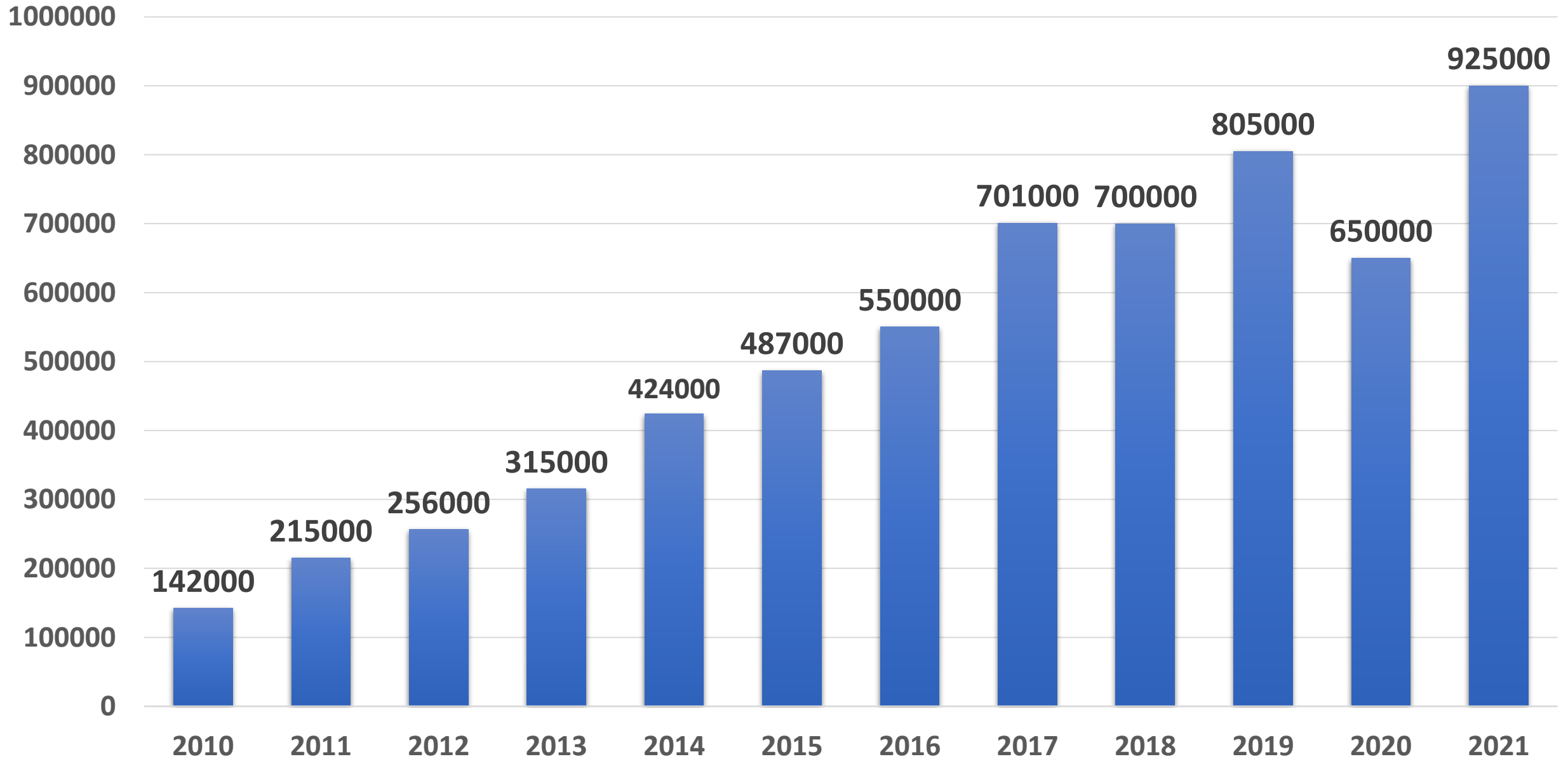


- India is one of the largest shrimp producer/exporter in the world.
- *Monodon* era 1985 to 2009.
- *Vannamei* era 2009 to 2021.
- *Monodon* revival 2021 to 2022.
- Shrimp farming area approx. 200,000 ha
- Shrimp production per ha +/- 5000 kg/ha/year
- 80 percent shrimp farmers are below 5 ha culture area
- 90 percent dependency on export market.
- Negligible domestic shrimp market and consumption

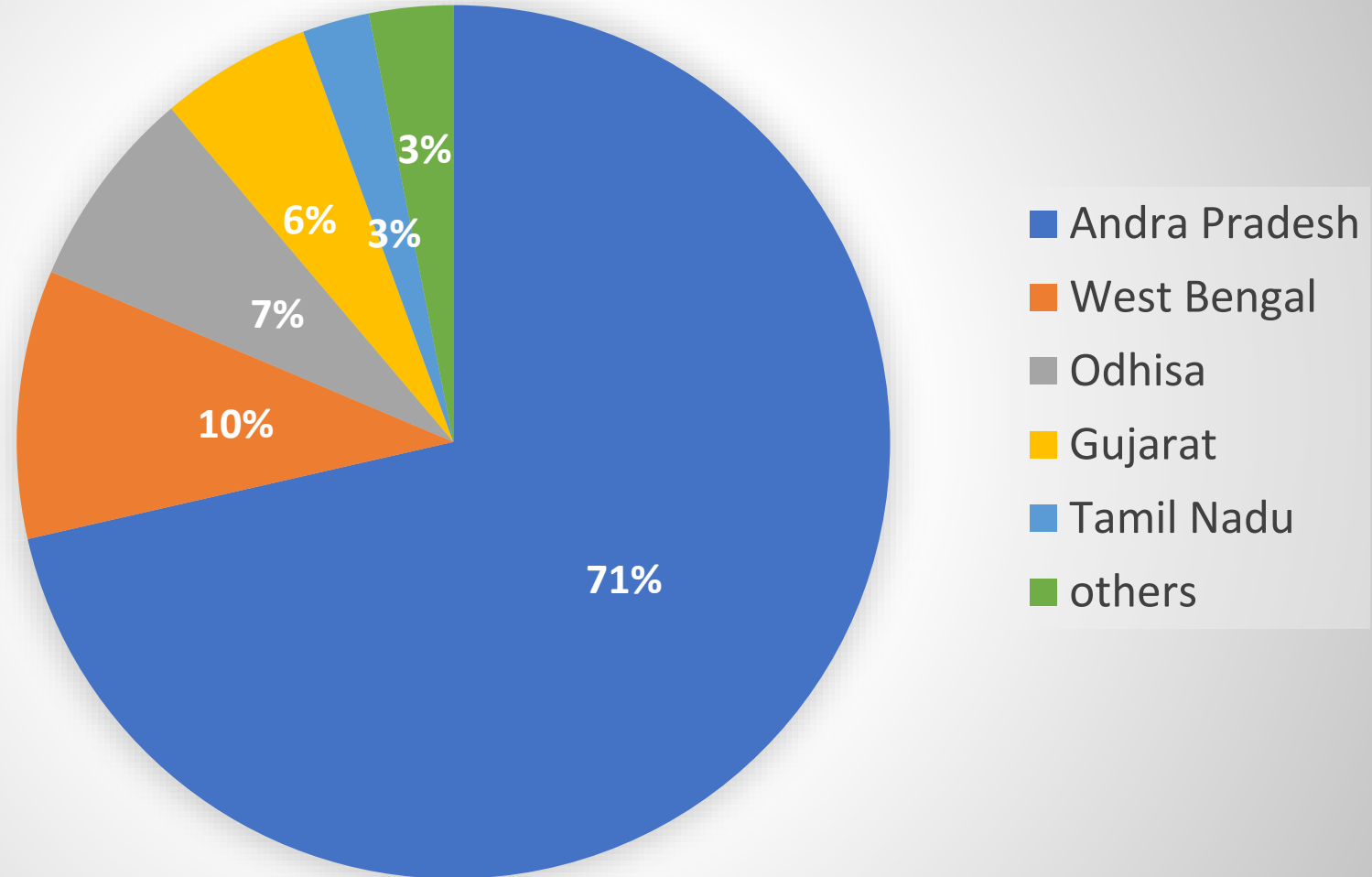
Shrimp Farming Era in India



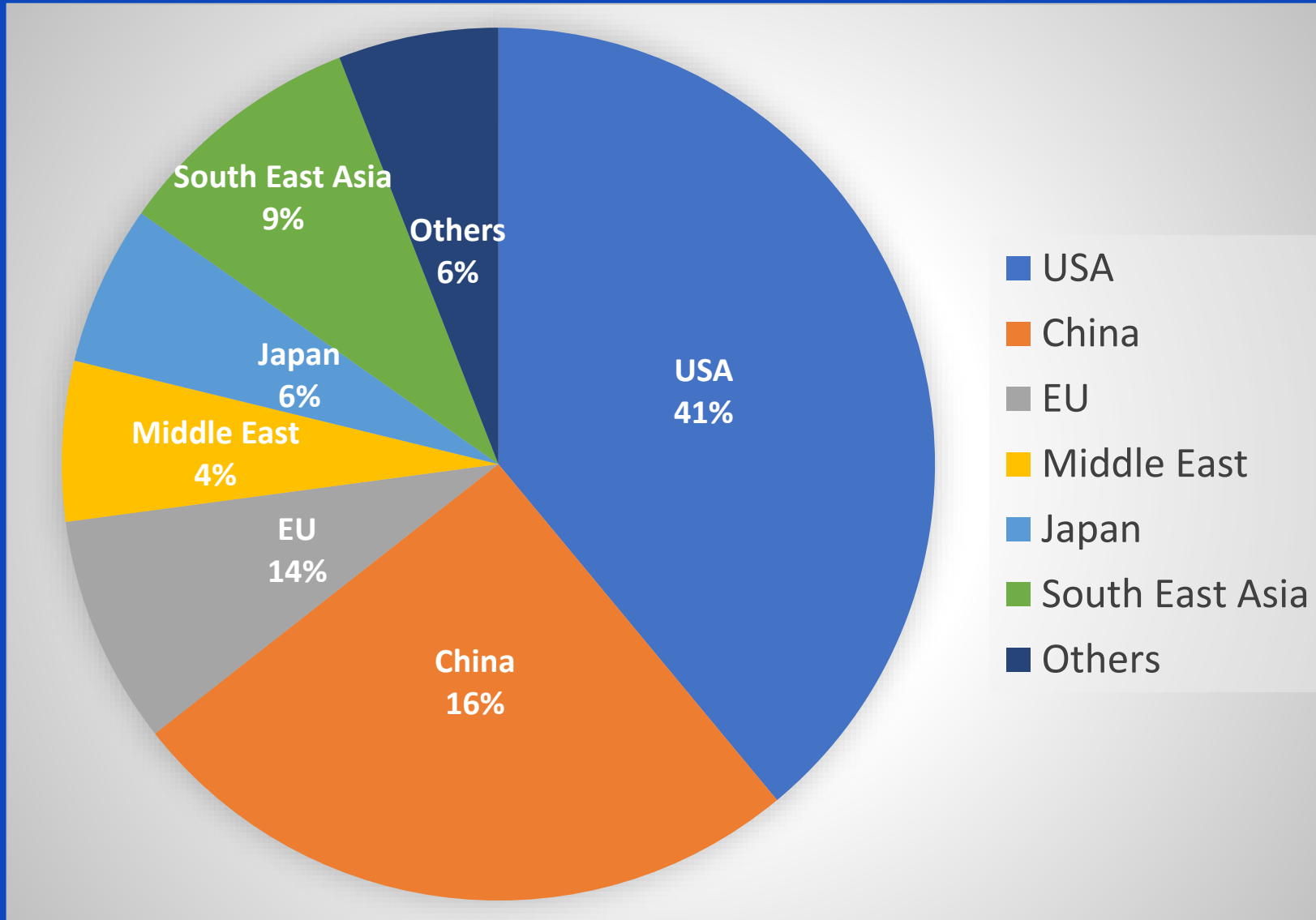
Total Production in Metric Tons



Shrimp farming scenario India

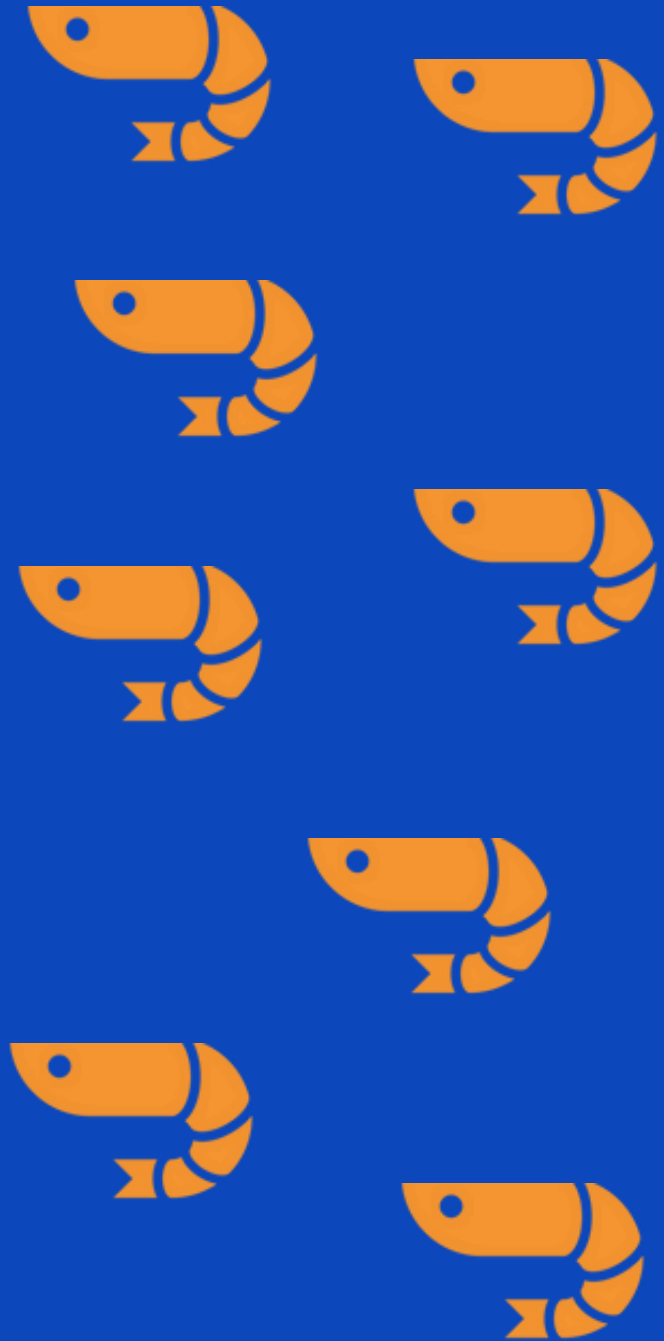


Shrimp Export Market 2021-2022



Shrimp seed production scenario

- Total number of shrimp hatcheries – 500+
- Brood stock supply companies in India - 10
- Total brood stock import – 250,000
- Multiplication centre – 2
- Seed production capacity – 125 Billion
- Present seed production – 90 billion



Shrimp processing scenario

- SEAI one of the strongest shrimp processors association in the world
- 612 processing plant with installed capacity 33500 MT/day
- 350 processing plants are modern with EU approval
- India has total 649 cold storage with holding capacity 3.80 lakh tons
- India total registered exporters 1519 in numbers
- India exported shrimp worth 38000 crore



Shrimp product and their percentage Share



Head on – 10%



Head less – 20%



PD – PDTO – 70%
(High Market)

RESOURCES AND OPPORTUNITIES OF SHRIMP FARMING IN INDIA

Total length of Coastline	8129 Kms.
Brackish water area	1.2 million hectares
Waterlogged saline affected areas	8.5 million hectares
Total	9.7 million hectares

**Approx.
developed
150 000 ha**

PRESENT AVAILABLE INFRASTRUCTURES FOR SHRIMP AQUACULTURE IN INDIA

Shrimp hatchery	500 +
Feed company	25 +
Processing plants	649 nos.
Aqua lab having PCR facilities	105+
Pharmaceuticals	200+
Registered exporters	1519

Governing and Regulatory Bodies that support the industry

- Department of Fisheries, Government of India
- Coastal Aquaculture Authority
- National Fisheries Development Board
- Marine Product Export Development Authority
- RGCA Aquatic Quarantine



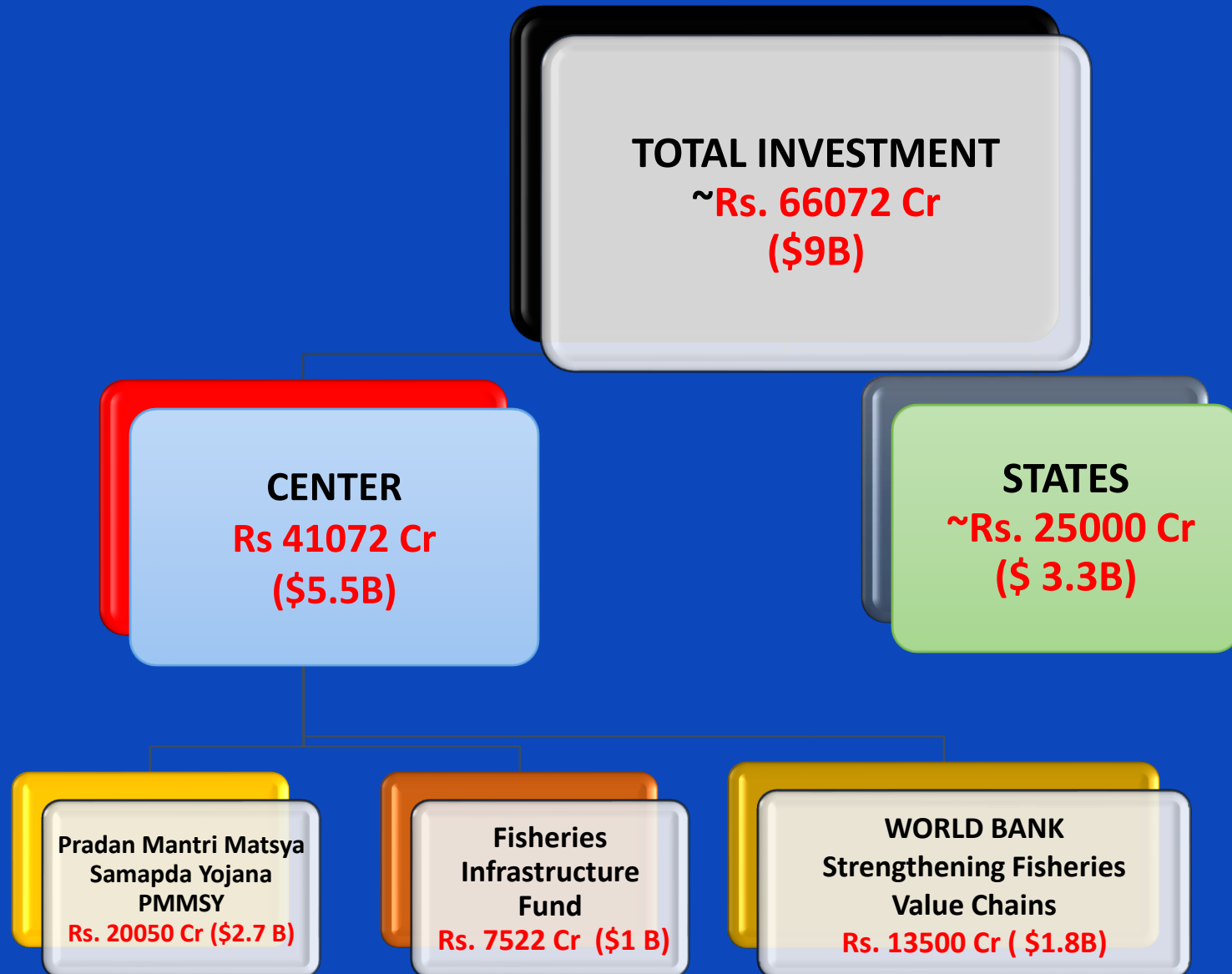
PMMSY- Pradhanmantri Matasaya Sampada Yojana



Main objectives

- Double the production
- Double the Exports
- Double the Farmers Income

FISHERES SECTOR GOVERNMENTAL INVESTMENTS : \$ 9 BILLION IN NEXT 5 YEARS



Past Trends show
Substantial Private Sector
Contribution in Fisheries

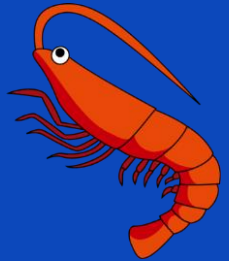
Shrimp sector
2018-19
Rs 30000 Cr
(\$ 4 B)

Shining example
of Synergy
Facilitative
Public Policy &
Private Sector
Investment



Why farmers are concerned

- **Quality seeds**
- **Cost of Production**
- **Diseases**
- **Being the last Beneficiary in the value chain**
- **Exports**



Major Issues

Production cost:

Energy

Feed cost (fish meal, soybean & wheat prices)

Seed cost (fry quality, hence lower survival rate; more demand of SPF)

Labor cost

Global competition

Diseases:

WSSV, EHP, RMS

Vibrio and other bacterial diseases.

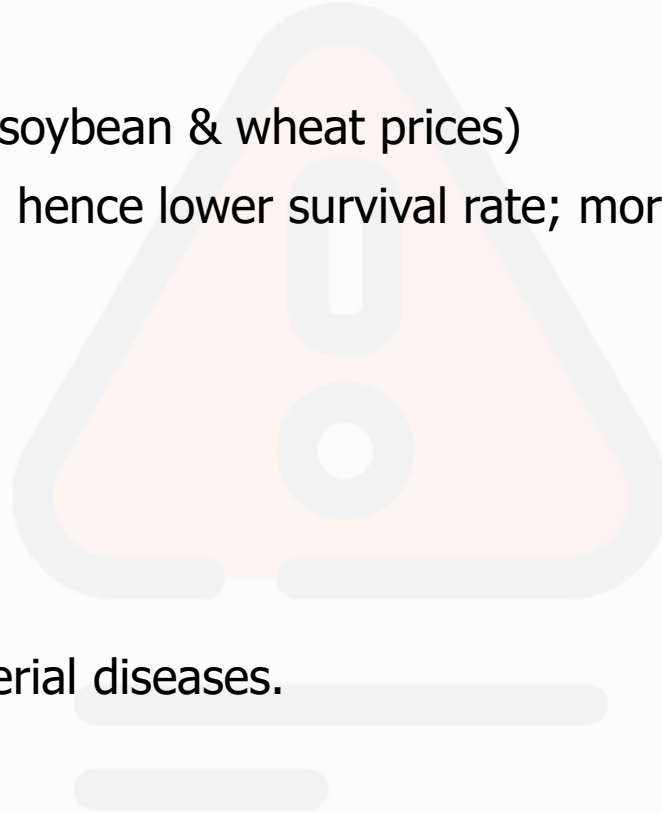
Biosecurity

Food Safety:

Traceability

Residues

Certification

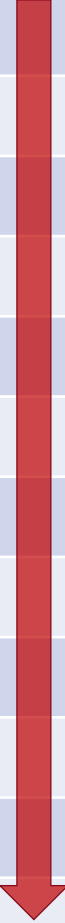


Disease issues

- Less seed (PL) survival.
- Slow growth- High FCR.
- EHP, Vibrio and Atrophy of Hepatopancreas
- IMNV (Recent)
- Running mortality.
- White gut/ White feces.



Production trends v/s Success

Year	Total seed Production (in billion)	Total shrimp production (in tons)	% of success	Overall, Success
2010	2.2	47 000	85	
2011	4.5	83 000	74	
2012	9.0	145 000	64	
2013	18	247 000	55	
2014	23	317 000	55	
2015	32	353 000	44	
2016	38	380 000	45	
2017	60	650 000	48	
2018	66	740 000	53	
2019	70	805 000	55	
2020	72	645000	48	
2021	90	925000	47	

Note: Calculated shrimp count @ 40 to 50 pcs/Kg

Responsible Factors



**Pond production v/s
Pond carrying
capacity.**



**Production area v/s
Water source
carrying capacity.**

Perfect Disease Recipe

High stocking
density

High salinity

High organic
load

High water
Temperature

Multiphase Indoor System Advantages

- Complete **isolated and disease-free** rearing environment.
- **High-tech** multiphase indoor rearing system.
- **Seven step water treatment** to ensure disease free seeds.
- **Pond-specific acclimatization** of seeds to ensure better transport and maximum survival of shrimp seeds.
- **Complete bio-security** from car wash to seed dispatch.
- **Separate indoor** dome for vannamei, monodon and marine fishes.
- Availability of seeds by **all seasons**.



MAPL Multiphase shrimp project





Seven step water treatment







Ozonizer



Oxygenator



Cartridge



UV



Generator



Algae culture lab



Outdoor Algae culture





Reverting Back to Black Tiger



Comparison of new monodon strain vs wild strain

	SPF monodon	Wild monodon
ADG (Average Daily Growth) (grams)	0.47 g	0.27
DOC (Days of Culture)	120	200
Size (grams)	50 g	50 g



Results of SPF monodon production 2022

- Total seed produced 1400 million (Approx.).
- 70% survival.
- Shrimp production = 40,000 to 50,000 tons approximately (@50 grams size).
- Worked well for production, but very difficult for marketing.

**Recent focus on
the Indian
domestic market**



The reliance on exports makes this industry highly vulnerable

Promotion of the domestic market can tap new opportunities for the shrimp industry

Increase in the Domestic Market can open new opportunities in this sector



- Started in 2019
- First of its kind pesco-vegetarian restaurant serving only farm raised shrimps
- Idea is to popularize high quality farm raised shrimp served in local as well as exotic cuisines.
- India is the second populous country in the world with great untapped domestic market potential
- Zhingalala serves 45+ shrimp delicacies











ZHINGALALA FRESH

FARM FRESH EXPORT QUALITY ABSOLUTELY CLEAN,
PEELED & DEVEINED PRAWNS

Small Prawns, Medium Prawns
& Jumbo Prawns

95456 67822 / 97128 91918

We take bulk orders & party orders







STORAGE INFORMATION

Keep frozen
Store in freezer
Do not refreeze after thawing

DEFROSTING INSTRUCTIONS

Remove required quantity from the pack.
Defrost by placing the prawns in the refrigerator compartment until soft for quick defrosting hold pack under running water. Do not use microwave or hot water to thaw.

COOKING INSTRUCTIONS

These Prawns are absolutely fresh & juicy. Great care has been taken while cultured in our own "Best Aquaculture Practices" (BAP) Certified farms. To retain natural taste and texture do not overcook. Cooking time is 1-3 minute.

ZHINGALALA FRESH RANGE

Small Prawns, Medium Prawns
& Jumbo Prawns

NUTRITIONAL INFORMATION PER 100g

Energy	99 kcal
Protein	23.98 g
Carbohydrate	0.2 g
Calcium	70 mg
Iron	0.51 mg
Magnesium	39 mg
Zinc	1.64 mg
Fatty acids (Saturated)	0.06 g
Potassium	259 mg

Best before 365 days from the date of packaging. Store it in deep freezer below -18 degree.

Consume within 2 days once it is thawed / defrosted.

Net weight

Date of purchase



ZHINGALALA FRESH

FARM FRESH EXPORT QUALITY ABSOLUTELY CLEAN,
PEELED & DEVEINED PRAWNS

No artificial colours, Artificial flavourings or Preservatives

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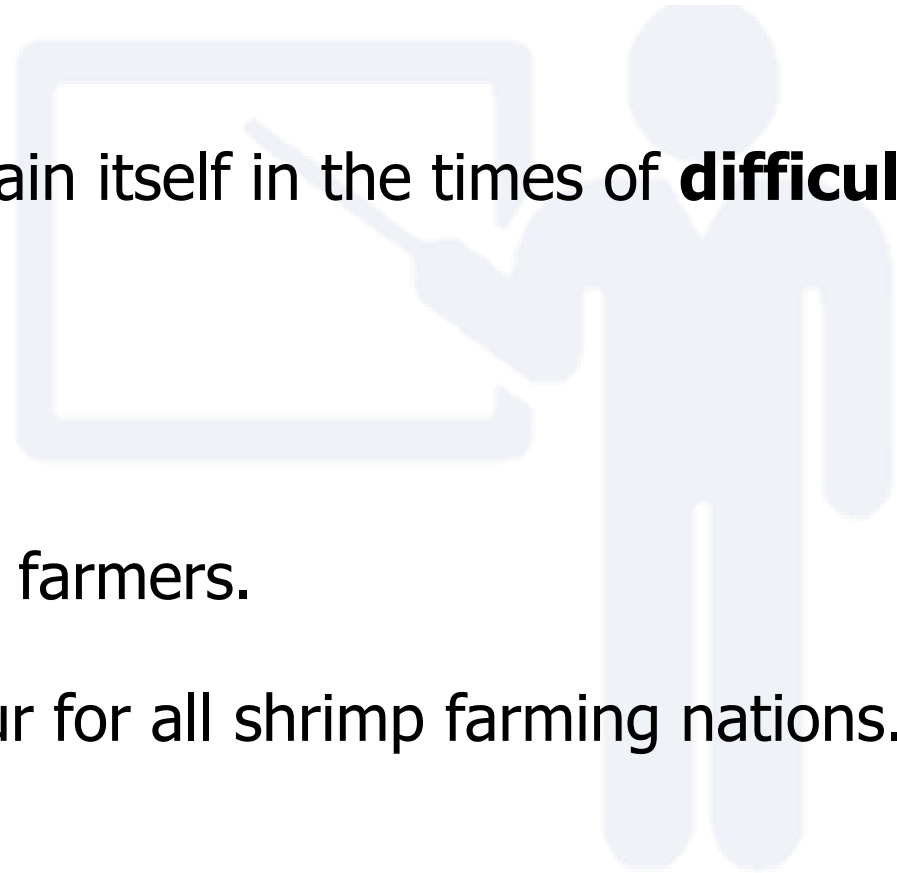


Farmer survives whole industry survives

- 
- A large crowd of people, seen from an aerial perspective, is arranged to form the geographical outline of the Indian subcontinent. The individuals are densely packed, creating a colorful mosaic that represents the population of India. The background is a light blue gradient.
- India has a population of **1.3 billion**.
 - If every individual consumes **1 Kg = 1.3 MMT** is required.
 - Even with 50% domestic market support, it can change the game.
 - Cumulative effort must be brought by the industry players, farmer unions, various organisations in order to develop a sustainable shrimp domestic market.
 - Aquaculture means **“Food and Profit For All”**

Brazil – “Best Domestic Shrimp Industry Model”


- World should learn from Brazil to sustain itself in the times of **difficulties associated with the exports.**
- **Self sustained** shrimp industry.
- **Steady and stable market** for local farmers.
- **Domestic Market** is need of the hour for all shrimp farming nations.



What Brazil can learn from world?

- A. Poor Genetics + Poor Seed + Poor Farm management = Failure crop.**
- B. Good Genetics + Average seed + Average Farm management = Can survive.**
- C. Excellent genetics + Excellent seeds + BMP = PROFIT.**
- D. Intensification + Overproduction = Failure**



A close-up photograph of a person's hand reaching out to touch the surface of deep blue water. The hand is positioned on the right side of the frame, with fingers slightly spread. The water is dark blue with many small, shimmering ripples and reflections of light. The overall mood is serene and contemplative.

Dimensions of life and nature cannot be organized or controlled.... So be one with them.