



DeepTech/ GovTech Innovation Series



# Haryana Aquaculture Tech AI Shaping the Next Era of Governance

Revolutionizing Aquaculture with DeepTech: Propelling 30% Growth From Rs. 2600 Cr (2024-25) to Rs. 10,000 Cr GVA by 2030, out of Rs. 22,000 Cr. with full potential

Innovate and Transform: Shaping the Future of Aquaculture with Technology

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## THE ECONOMIC AMBITION





# HARYANA AQUACULTURE IGNITING INNOVATION AT THE EDGE



GFST Transforms
Haryana's Aquaculture
From ₹2,600 to ₹10,000
crore by 2030.

**GLOBAL FORUM FOR** 

SUSTAINABLE

TRANSFORMATION



We Are Transforming Governance
Through Innovation, Technology,
and Impact, Under the Visionary
Leadership of
Shri Nara Chandrababu Naidu

A multi-stakeholder think tank driving government transformation through AI, ML, Blockchain, and GovTech—aligned with Viksit Bharat 2047 and SDG goals, powered by visionary leaders, seasoned bureaucrats, and expert technocrats.

# GFST AND BHARATH SUPPORTS - 45-DAY CONCLAVE SPRINT



# TO CREATE A 5-YEAR ACTION PLAN FOR AQUACULTURE IN HARYANA FOLLOWED BY IMPLEMENTATION OF 5 YEAR STRATEGY

# **Cross-Sectoral Workshops** Map data sources and pain points for each goal **Live Dashboards** Enable real-time governance for ministers and administrators **5-Year Action Plans** Provide actionable plans with tech support and KPI logframes **Policy & Outcome Institutionalization** Institutionalize policy and outcomes with continuous handholding **Integrated Growth Framework**

A 45-day innovation sprint co-developing reforms with the Department's framework

Define a realistic growth framework backed by measurable success

# HARYANA - CURRENT AQUA FARMING KEY METRICS - 2024-25







2.32 L MT



2,624 Cr



23,318 Ha

**Farmers** 

Fish Production

0.25% of GSDP

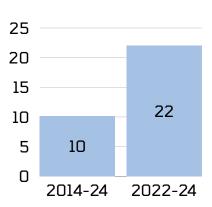
Area under Aquaculture



11,920



1,45,054



Growth Trends

Aqua Ponds

Saline/Water logged area

Empowering Aqua Farming: 16,000 Farmers, 2.32 Lakh MT Fish Production, 21.61% Growth

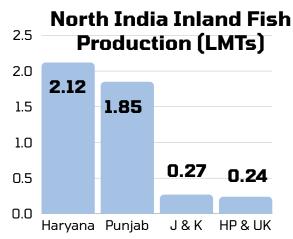
Source: Fisheries Dept, Haryana

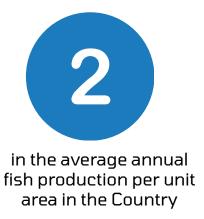
# HOOKED ON SUCCESS: HARYANA'S FISH FARMING

# GFST

**EXCELLENCE** 

Haryana ranks second nationally with 11,000 Kg/hectare and supports over 118,000 fishermen





Avg Annual Fish Prodn -Haryana 11000 Kg/Hectare National Avg : 3000-5000 Kg

Source: Fisheries Dept, Haryana

No. of Fisherman

1,18,455 (0.42% of population)



Fisherman Per District

5,384

300% growth in saline water aquaculture (2020–2024)

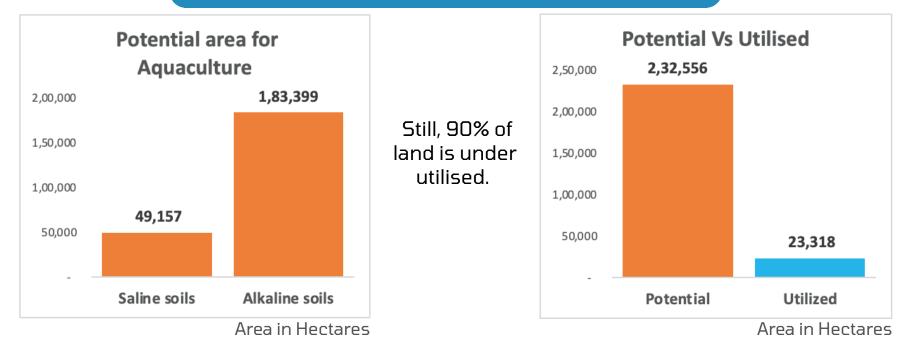
Strategic position in North India for fish and shrimp exports

Proximity to Delhi fuels Haryana's aqua growth, with farmers harvesting live fish for higher market prices



#### 2 Lakh+ Hectares Waiting to Generate Ultimate ₹22,000 Crore GVA Opportunity

- Untapped Land Potential: ~2.0 lakh Hectares
- GVA Per Hectare: Rs. 11.26 Lakhs
- Additional GVA Potential: ~Rs. 22,000 Crores

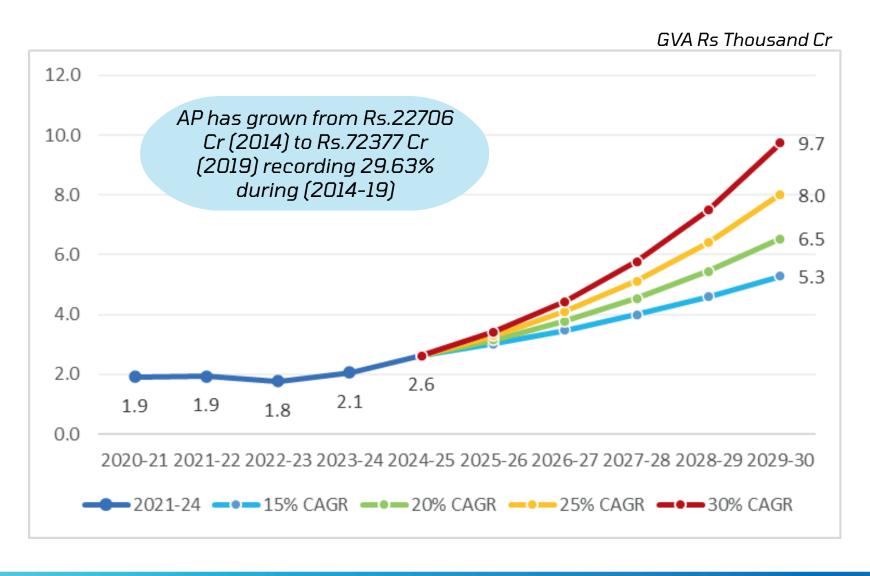


Haryana's alkaline/saline tracts—once liabilities—are now prime aquaculture assets, especially for vannamei shrimp, with growing scope for brackish finfish where salinity fits. With CIFE's ion-fortification protocols, lined infrastructure, and PMMSY support, the upside is strong for clusters in Hisar–Fatehabad–Sirsa–Rohtak belts and similar pockets.

# ACCELERATING AQUA GROWTH PROJECTIONS: PATHWAYS TO ₹10,000 CR BY 2029-30



#### Exploring 4 Growth Models with Annual Growth Rates from 15% to 30%

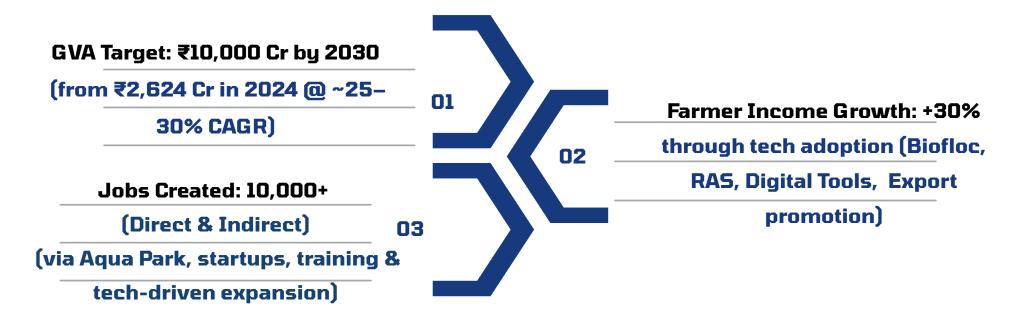


## **VISION FOR GROWTH: HARYANA'S AQUA LEAP**



## Transforming 1.0 Lakh Hectares into an Economic Powerhouse

Technology-Driven Transformation | Empowering Farmers | Export Excellence



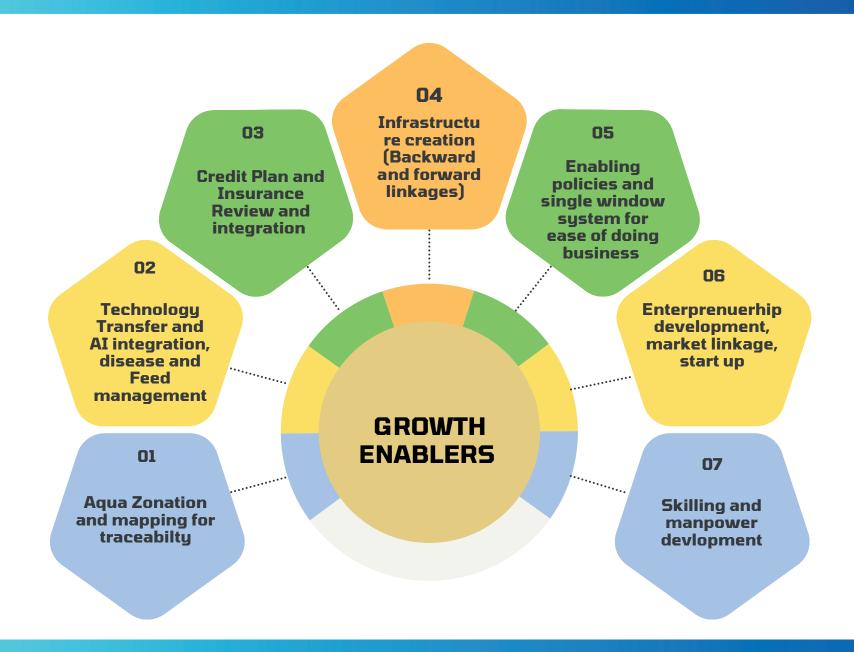
GVA Ultimate Potential: ~Rs. 25,000 Crores from Untapped Land of 2.0 lakh Hectares

To make Haryana a leader in North India in sustainable aquaculture by leveraging DeepTech, AI, and precision farming, turning untapped saline land into an economic engine for rural prosperity.



## **TAPPING HARYANA'S AQUACULTURE POTENTIAL**





## DASHBOARD WITH KPIs (PROPOSED)





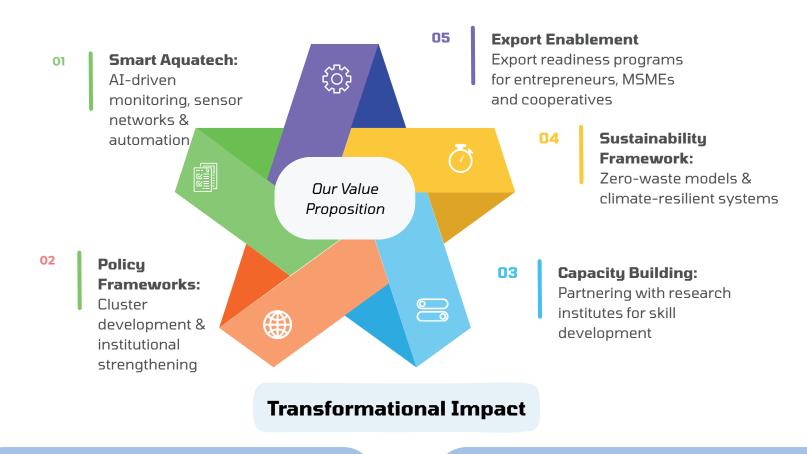
Note: Sample Dashboard with Sample Data



# STRATEGIC PARTNERS MAKING HISAR AQUA PARK A GLOBAL BENCHMARK



#### GFST & Bharat Advisors and Partners (BAP) - Creating a Center of Excellence



- 50+ rural youth trained annually in cuttingedge aquaculture
- 30% operational efficiency gain through AI/tech adoption

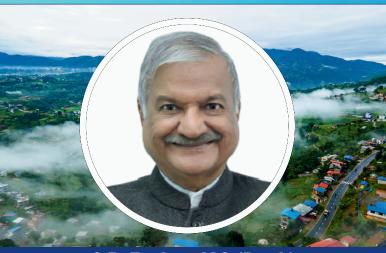
- 100% compliance with international sustainability standards
- First-of-its-kind CoE in North India for smart fisheries



## **ABOUT GFST AND TEAM**

#### **Meet the Team Driving the Transformation**





S.P. Tucker, IAS (Retd.)
Vice Chairman & Director

# About Global Forum for Sustainable Transformation (GFST)

Accelerating Governance through Technology & Partnerships The Global Forum for Sustainable (GFST) Transformation helps governments adopt AI, ML, Blockchain, and DeepTech to improve governance. bring together policy experts, technologists, and administrators to deliver data-driven, inclusive, and transparent development—aligned with Viksit Bharat @2047 and global SDG goals.



Sanjay Gupta, IFS (Retd.)
Chief Executive Officer



**Sridhar Seshadri**Director
Global Foresight &
Innovation



Raghav Bhandari Bharat Advisors & Partners LLP



**Shreeram Iyer**Director
Global Impact



**Gaurav Gandhi**Bharat
Advisors &
Partners LLP

#### Why Haryana Aqua?

- First landlocked state to farm shrimp using underground saline water
- 11,000 Kg/Ha fish yield double the national average
- 90+ Biofloc units, Hisar Aqua Park (₹98.9 Cr) driving innovation
- Proximity to Delhi fuels premium pricing & export potential

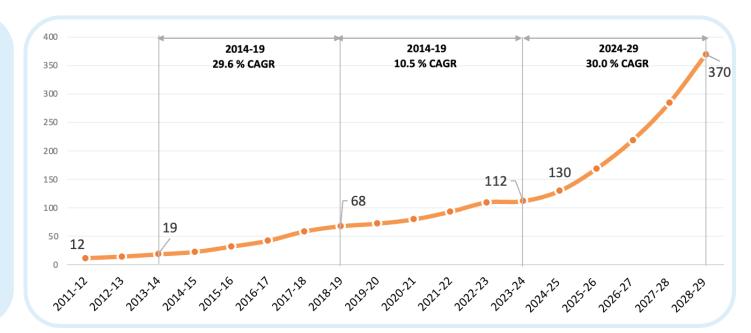
#### **Haryana Strenghts**

- 2.32 lakh hectares of saline/alkali soils ideal for inland aquaculture
- Declared fish culture disease-free
   by ICAR a rare national distinction
- 16 RAS units, 90+ Biofloc farms, and
   ₹98.9 Cr Hisar Aqua Park underway
- Near Delhi NCR for fast logistics, higher market prices, and export readiness

Innovation, Infrastructure, and Income – Triple Edge in Aquaculture

### AP Aquaculture's Evolution: Poineering the temendous growth

- 2015 onwards AP placed at top and moves upwards as it is (Rs. 1.3 lakh crore) double the value of 2<sup>nd</sup> place (West Bengal with Rs. 0.62 lakh crore)
- AP's expertise and robust ecosystem drive sustained growth through R&D and innovation



AP aquaculture sector took a transformative turn from 2014 onwards, tripling its output between 2014 and 2019 with an impressive 30% CAGR. The state adopted a mission-mode approach under the leadership of Sri S.P. Tucker, IAS (Retd.), allocating three times the previous budget, introducing a dedicated Aqua Policy, and formulating a comprehensive action plan to drive sustainable growth.

Once again, the state reaffirms its commitment to elevating the aquaculture sector into a thriving industry—backed by the nation's most progressive Aqua Policy, a strategic five-year action plan, the promotion of cutting-edge technologies, and comprehensive support, including targeted subsidies for stakeholders—to achieve a 30% CAGR.

# AQUACULTURE INNOVATION TECH 2.0 CONCLAVE ANDHRA PRADESH



#### 10 Lakh Acres by 2029–30 & Tripling GVA From Rs.1.29 to Rs.3.87 Lakh Crore

#### Conclave held in collaboration with the Department of Fisheries, Andhra Pradesh, on 16-18 February

- Comprehensive Baseline Assessment of 60,000 Aqua farmers covering 4.44 lakh acres
- 3-Day In-house Lab model involving all the stakeholders including progressive farmers, exporters, feed manufacturers etc., forming into 9 Strategic groups
- ~600 Progressive Aqua farmers participated
- Andhra Pradesh is once again committed to achieving a 30% growth rate for 2024–29 through a sustainable, ecologically balanced system





#### The Chief Minister announced several key strategic directives:

- Mandatory geo-tagging and traceability for all aquaculture farms in the state.
- Launch of a real-time digital payment system integrated with farm data.
- Promotion of seafood consumption in domestic markets through tie-ups with the Defence and Health Departments.
- Implementation of Aqua Stack digital infrastructure across all district fisheries offices within 90 days.
- Declaration of 12 Aquaculture Innovation Zones with modern infrastructure, incubation support, and green energy solutions.

Conclave's core objective is to build a resilient, tech-enabled, and inclusive Aquaculture economy in Andhra Pradesh

# GFST IN COLLABORATION WITH BHARAT ADVISORS AND PARTNERS LLP Shaping the Next Era of Governance

Together, let's revolutionize Haryana's Aqua sector, empowering farmers and creating a future of innovation, growth, and prosperity for all!



