



Ornamental Fish Farming: Forward & Backward Linkages through KAVIL



KAVIL

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DEVELOPMENT OF ORNAMENTAL FISHERIES IN KERALA – HIGHLIGHTS

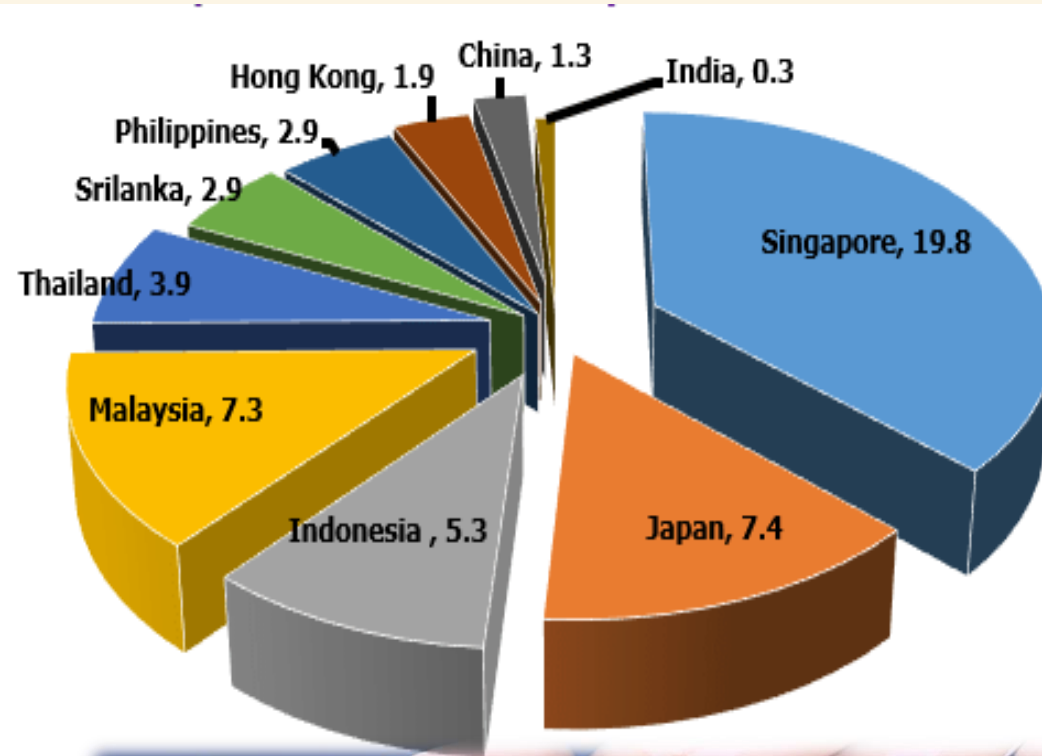
(AS PER EXPERT COMMITTEE RECOMMENDATIONS)



- Role of the sector - source of income, employment generation, augment foreign exchange and recreation with health benefits.
- Economically viable and resourceful sector still remain poorly explored.
- Empowering economically weaker communities through self employment



ORNAMENTAL FISH INDUSTRY SCENARIO



- Globally over 2500 species are traded
- 100 million hobbyists spread across 125 countries.
- Ornamental fish market size 5.8 billion USD in 2022 and grow with CAGR more than 8% reaching 9.8million USD value in 2023-2030.
- Export of ornamental fishes from India started in 1969
- Export from India- Q 221.7 crores Value in USD 4.536 lakhs (INR 33.32 crores) with market share just below 1%
- Market value of domestic aquarium trade in India is about INR 500 crores which has the potential for expansion 5000 crores through h strategic interventions

KERALA FOR PROMOTING ORNAMENTAL FISHERIES



Strength

- Good source of water, diversity of indigenous species, favorable climate.
- Presence of State and Central research institutes in fisheries sector for technology development and up gradation.
- Training, technical, financial and marketing support by the government

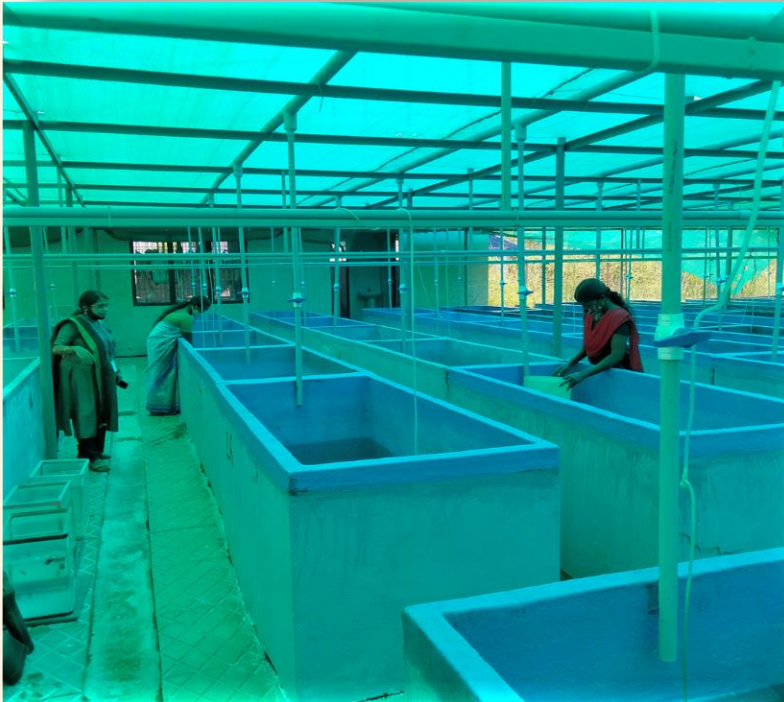


Weakness

- Lack of proper export market
- Lack of professional approach and coordination.
- Poor quality of fishes
- Poor allocation of resources



KERALA AQUA VENTURES INTERNATIONAL LIMITED (KAVIL)



- For the promotion of a common platform for mass production and marketing of ornamental fish
- Started in 6/12/2007 – A Public Private Partnership (PPP) Company
- Now KAVIL is a **Company under State Government**
- **Hon'ble Chief Minister of Kerala is the Chairman and the Hon'ble Fisheries Minister is the Vice-Chairman.**
- The Aqua Technology Park (ATP) - 10 Km from the Cochin International Airport - 3 Km from Aluva Railway station.
- ATP with 6 Aqua Hubs - having conditioning and packing Units- administrative building, Mini quarantine unit, Testing labs, Sales Outlet and training facility.

Objectives

- Production of market demanded ornamental fish
- Production of ornamental fish seed, aquatic plants and fabrication of aquaria.
- Domestic marketing through retail outlet (Daily), buyer seller meet), and trade show
- Increasing export of ornamental fish by providing infrastructure facility
- Capacity building and skill development of farmers, stake holders, entrepreneurs, and interns.
- Sales promotion of ornamental fish
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- Market linkages establishing for export and domestic marketing.

KAVIL Major Activities



- Providing technical support to farmers for the production of ornamental fish .(KAVIL established 536 No .various types of units)
- **Buyer-seller** meets from 26.02.2021, up to January 2024. Total no. of meets -128, Total sales of Rs. 115 lakh.
- Tainting and Skill development Conducted training for 2841 farmers on ornamental fisheries and internship to students form various institutions.
- Organising trade shows and business meet for the promotion of ornamental fish culture
- Laboratory facility to farmers for testing fish
- Quarantine and conditioning of fish for export and domestic markets
- Supply of inputs to farmers on subsidised rates



Training Centre

- KAVIL is has a training centre for conducting short term and long term training programs to ornamental fish farmers.
- Various training and capacity building programs are regularly conducted for farmers, entrepreneurs and interns
- Training is arranged through faculties form research institutions, experienced industrial experts and extension staffs of department and KAVIL



Laboratory Facilities

- Early diagnosis plays a crucial role in minimizing losses.
- KAVIL's laboratory facilities aim to establish an apex-level referral lab equipped with advanced testing capabilities, including water quality analysis, RT-PCR for virus detection, microbiology, bacteriology, and pathology.
- The lab also serves as a local center for providing information on disease outbreaks to the National Surveillance Program for Aquatic Animal Disease (NSPAAD) program.



Brood Bank

- KAVIL established a Brood Bank for ornamental fish on its campus, importing superior-quality brood stock of commercially valuable ornamental fishes to provide high-quality brood fish to small and medium farmers in the state for breeding and production of seeds.



Aquarium Fabrication Unit

- The objective of the units is to manufacture glass aquariums of superior quality in various sizes, catering to the specific needs of farmers and the general public at an affordable price.
- Additionally, the units offer practical training in the fabrication of aquariums.



Aquatic Plant Production Unit

- For multiplication of commercially important aquarium plants
- Develop protocols for the commercial production of high valued aquarium plants and to transfer to the ornamental farmers.
- Mass production of seedlings of aquarium plants
- Aquarium plants can be grown along with ornamental fishes and can provide extra income to the farmers



Conditioning and Packing Hubs

- The CPU established at KAVIL offers facilities for conditioning and packing of ornamental fish .
- Farmers can rent out this unit and they can hold fish in this facility for quarantine and conditioning before sending to domestic and international markets
- Proximity of the hubs to Cochin International Airport is a added advantage



BACKWARD LINKAGES

Laboratory Services:

- Ornamental fish farmers depend on KAVIL for essential services like water quality analysis and disease diagnosis.
- The proposed full-fledged lab with modern facilities will strengthen this backward linkage, aiding farmers in maintaining the health and quality of their fish stock.
- The services provided through the lab helps ornamental fisheries sector and other aquaculture sectors in Kerala, enhances the overall development of the sector .

Fish feed and supply of inputs for farming :

- KAVIL's is supplying fish feed and other essential inputs to ornamental fish farmers at a subsidized rate. This can significantly benefit farmers by reducing production costs.

BACKWARD LINKAGES

. Supply of Quality Brood and Seeds :

- KAVIL provides ornamental fish farmers with quality fish seeds and brood fish through brood bank and multiplication center of integrated fish farms, ensuring a reliable supply of high quality fish production .
- This backward linkage ensures sustainability and growth of ornamental fish farming.

•District-wise Farmer Producer Organizations (FPOs):

- KAVIL is planning to Establish FPOs which can promote collective farming practices.
- This could enhance coordination among farmers, streamline activities, and create a stronger support network for the ornamental fisheries sector.

BACKWARD LINKAGES

3. Accredited National Training Centre:

- KAVIL has conducted training sessions for 2841 participants, including youth, farm women, and farmers from various districts in Kerala.
- Leveraging the status as an accredited National Training Centre, KAVIL can explore partnerships with educational institutions and industry experts to offer a diverse range of training programs, thereby further enhancing the skill development of stakeholders in the sector.
- This can contribute to the overall growth and professionalism of the ornamental fisheries sector.



BACKWARD LINKAGES

•Renovation Support:

- Support for renovation of existing homestead units
- This initiative aims to enhance production capacity of existing units by improving their infrastructure.

Quarantine System:

- Quarantine system at KAVIL's premises adds another layer to backward linkages. Farmers can utilize this facility on a rental basis to import or export good quality ornamental fish.
- This system ensures that farmers to obtain disease-free fish seeds, reducing the risk of infections and losses.

FORWARD LINKAGES



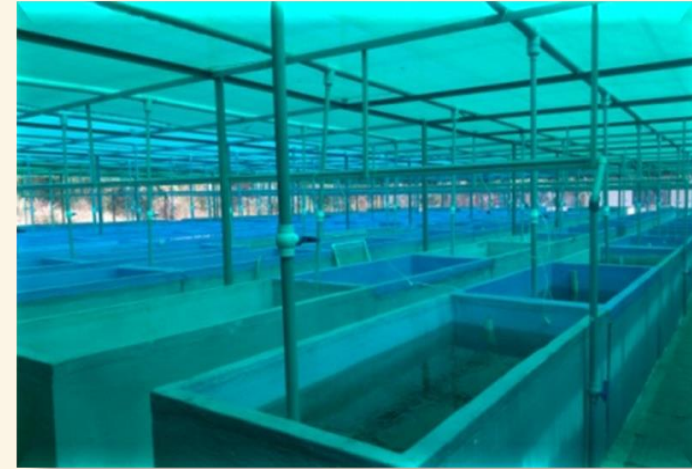
- **Buyer seller meet-** KAVIL initiated a weekly Buyer Seller Meet every Monday from 8:00 am to 11:00 am, dedicated to safeguarding the interests of ornamental fish farmers

- Total sales amounting to Rs. 115 lakh up to January 2024, encompassing a diverse range of fish approximately 120 ornamental fish varieties,

- The pricing is competitive and quality-linked, with KAVIL charging 6% of the selling price, ensuring farmers fair price and amounts promptly at the close of the meet

FORWARD LINKAGES

- **Organizing Business meets and Aqua Shows:**
KAVIL regularly organize aqua show ,trade fare and business meets. This enables the farmers to exhibits there products and helps in interaction with industry experts and ornamental fish traders.
- Trade fairs and business meet ensures new business opportunities to farmers
- **Exposure Visits**
Conduct of exposure visit to out side state enables the farmers to understand new technologies in production and exploring new markets
- **E Marketing**
KAVIL is developing a e marketing system so that the registered farmers can market their products directly



THANK YOU

