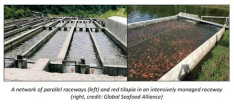
In-Pond Raceway Systems for Fish Farming



A network of parallel raceways (left) and red tilapia in an intensively managed raceway (right, credit: Global Seafood Alliance)

Revolutionize your fish farming with IPRS for maximum yields and sustainability.

The In-Pond Raceway System (IPRS) is an advanced aquaculture technology that maintains optimal water quality through continuous water flow and waste management, allowing for high-density fish farming.

This technology is TAAT1 validated.

7·7 Scaling readiness: idea maturity 7/9; level of use 7/9

Gender assessment 4

Climate impact 7

Problem

- Traditional pond farming limits fish productivity per area, reducing profits.
- Inadequate waste removal causes pollution and harms fish health.
- Traditional methods demand extensive land and labour, raising costs.
- Inadequate water circulation and oxygen levels lead to inefficient feed conversion.

Solution

- The In-Pond Raceway System (IPRS) enables stocking densities of up to 150 kg per cubic meter.
- IPRS recreates the fish's natural environment, promoting faster growth and keeping them free from diseases and stress.
- Production of higher-quality fish in less water and often exceeding traditional pond production by 200 to 300%.

Key points to design your project

The In-Pond Raceway System (IPRS) technology offers significant benefits for food security and climate resilience. To integrate it into your project, consider these steps:

- Choose a design and size of raceway that matches your objectives and resources.
- Ensure access to quality water and electricity supply for continuous flow.
- Train staff to minimize operating costs.

By following these steps, you can successfully integrate the IPRS technology into your project, thus enhancing food security and climate resilience.

Cost: $$$ **4 000 USD**

IPRS of 5 m long, 1.2 m wide, and 1.2 m deep

ROI: $$$ **30 %**

Profit margin increased

0.5882 kg of fish

for 1kg of feed

1.57 USD

8-month total variable costs per kg

0.31 USD

8-month total fixed costs per kg

IP

Patent granted

WorldFish
Bernadette Fregene

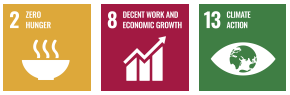
Technology originally documented by

ProPAS

Commodities

Fish

Sustainable Development Goals



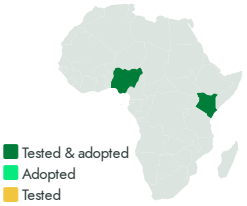
Categories

Production, Practices, Production system

Best used with

- All Male Tilapia Fingerlings with Greater Yield and Uniformity ›
- Fast Growing and Hybrid African Catfish ›

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.