Zoominar II on innovative success stories in the NENA region: Tool to support smallholders under COVID-19 disruptive impact 30 April 2020

Climate smart culture of genetically improved tilapia

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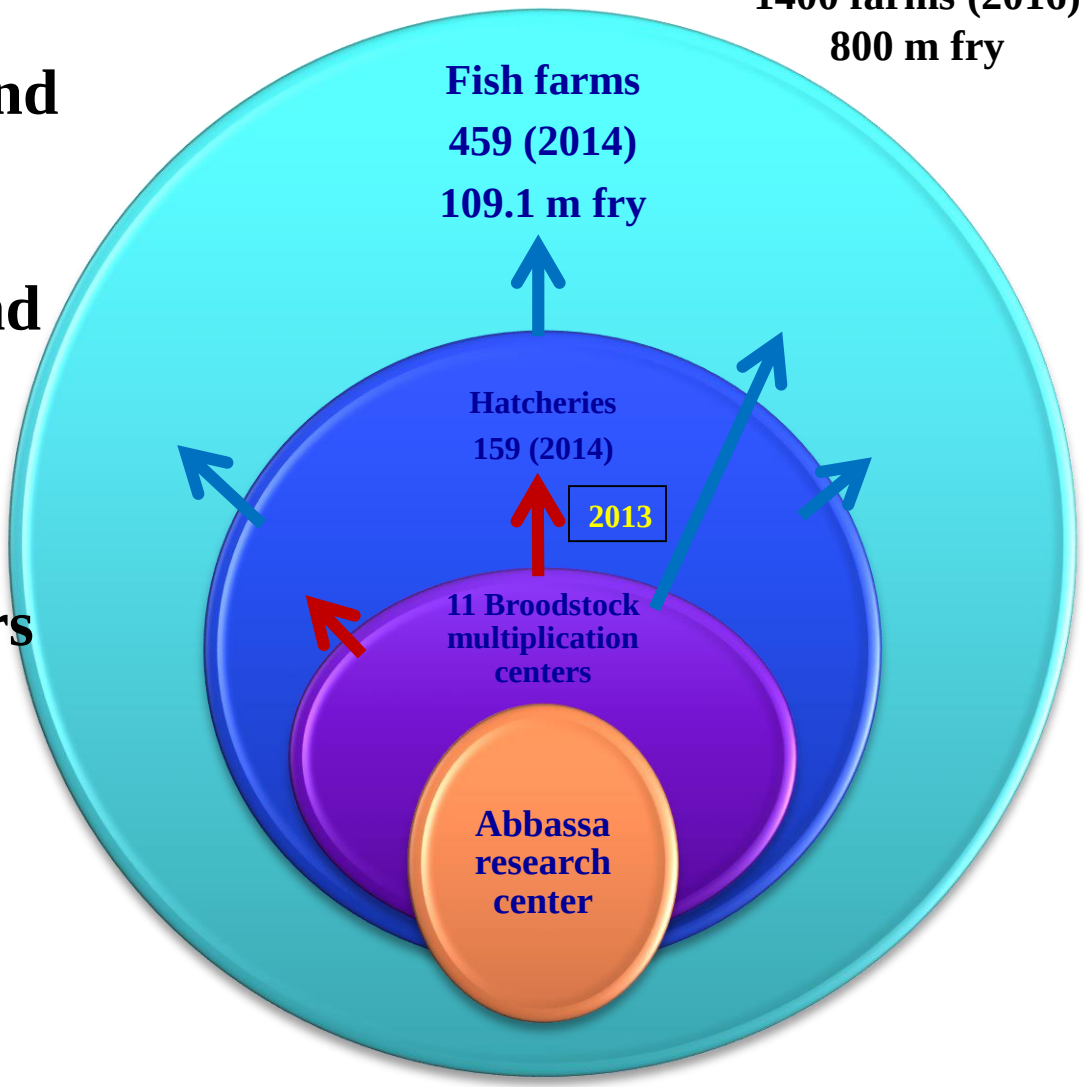
WorldFish

ACLiSAT- IFAD funded project

Tilapia Genetics improvement program
GIANT(G9) dissemination strategy in Egypt

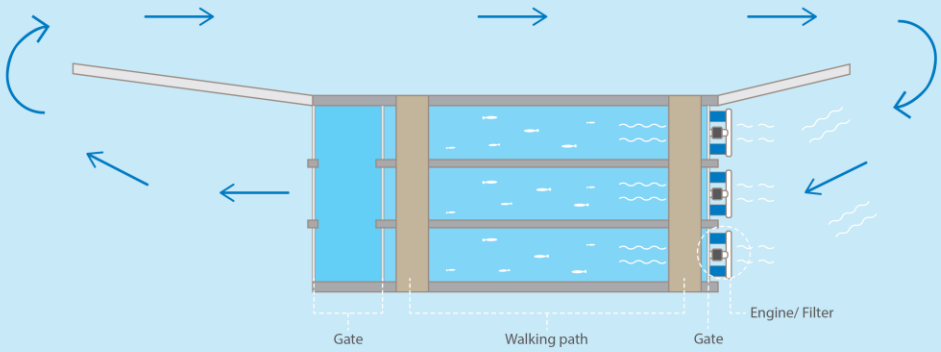
CSA

- **Higher yield / unit of land and water, food security**
- **Produce high quality fish and easy to market life product**
- **Capture of nutrients for removal and use as fertilizers and biogas**
- **Easier fish health management; and apply biosecurity measures**



Schematic credit: Malcolm W. Dickson

In Pond Raceway System Principle



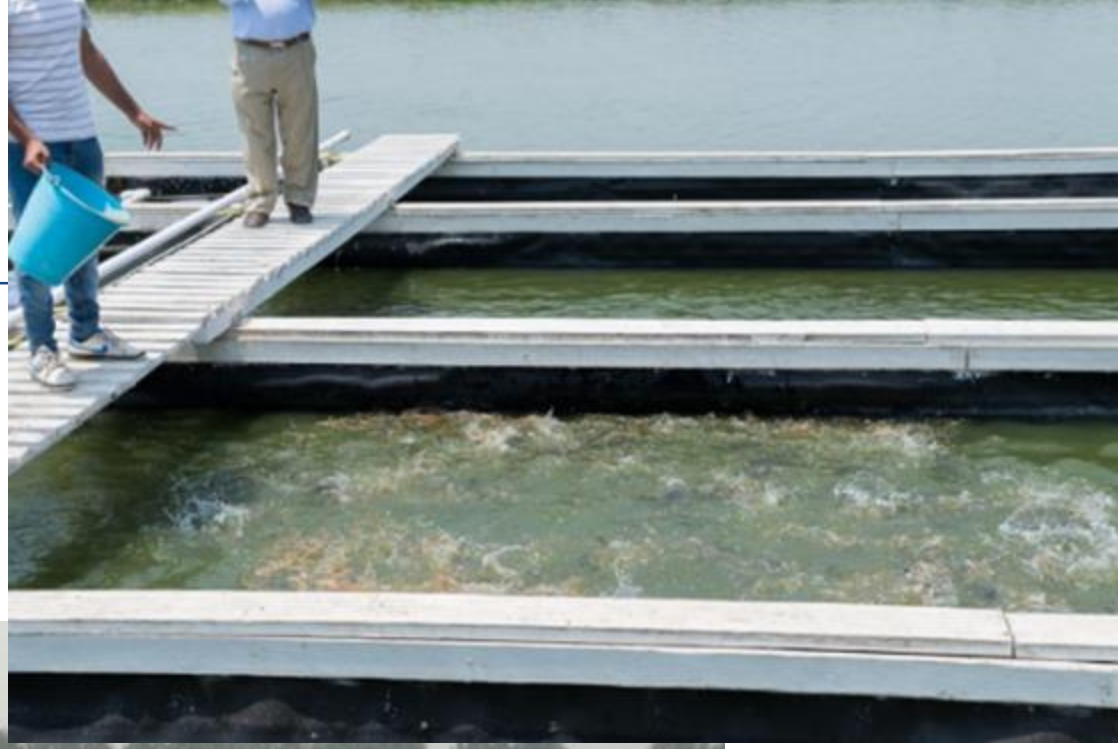
- **Intensify production in 2% of pond volume (cells).**
- **No need for water exchange, only compensate evaporation and seepage. Use les water**
- **Less effort from farmers to take care of fish area.**
- **Use of smart tech. to monitor water quality, feeding & Security**

IFAD
Investing in rural people

Solid Waste Removal

1 kg of fish feed consumed

0.30 kg of solids ;



Reduce the impact of aquaculture on the environment

IAA

WorldFish

sh Growth, harvest & Economics

Item	Average
Yield	2,845
1. Revenue	62,678
4. Total Cost	53,907
5. Net Return	8,770
Return on total costs	15%

Integrate Digital marketing & on demand harvest

Scale up and Conclusion

- **The innovation is important for food security in semi-arid area where water can be limiting to traditional pond aquaculture**
- **Such innovation (genetic gain and climate smart enable triple yield from same land with less water use.**
- **CSA provides good solution to food security, consumer health and save the environment.**
- **Integrate use of smart technology to improve system management and maintain system operating in case of pandemic disease outbreak**

Thank You & Stay Safe