



Ministry of Fisheries and Aquatic Resources

# National Aquaculture Development Authority

## AQUACULTURE NEWS



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NAQDA wishes to congratulate the newly appointed Minister, State Minister, and Secretary for the Ministry of Fisheries and Aquatic Resources Development



Minister  
Hon. Mahinda Amaraweewa



State Minister  
Hon. Dilip Wedaarachchi

### NAQDA New Chairman



Hon. Mahinda Amaraweera, Minister of Fisheries and Aquatic Resources Development has appointed Mr. Upali Mohotti (Attorney-at-Law) as the new Chairman of NAQDA.

Aquaculture News wishes good luck to the new Chairman, NAQDA and pledges its support to all future endeavors initiated by Mr. Upali Mohotti to uplift the aquaculture sector in the country.



**MIN VISITHURU**  
**2016**

### ඉරණමඩු ජලජීවී වගා සංවර්ධන මධ්‍යස්ථානය

උතුරු පළාතේ මිරිදිය ධීවර හා ජලජීවී වගා සංවර්ධනය සඳහා විශාල විභවයක් පවතී. මෙම සම්පත තිරසාර ලෙස යොදා ගැනීමෙන් සෘජුවම මිරිදිය මත්ස්‍ය අස්වැන්න වැඩිකළ හැකිය. ග්‍රාමීය ජනතාවට වඩාත් සාධාරණ මුදලකට මසුන් සැපයීම මගින් ප්‍රෝචිත අවශ්‍යතාවය සපුරාලීමටත් රැකියා අවස්ථා බහුල කරමින් ජනතාවගේ ආදායම් තත්ත්වය ඉහළ නැංවීමත් එමගින් ග්‍රාමීය ආර්ථිකය ශක්තිමත් කිරීමත් සිදුකළ හැකිය.

උතුරු පළාත සඳහා අවශ්‍ය මත්ස්‍ය බීජ මෙතෙක් නිෂ්පාදනය කරන ලද්දේ මාතලේ දිස්ත්‍රික්කයේ පිහිටා ඇති දඹුල්ල ජලජීවී වගා සංවර්ධන මධ්‍යස්ථානයෙනි. මෙසේ දුරබැහැර මධ්‍යස්ථාන වල සිට මත්ස්‍ය බීජ ප්‍රවාහනය වියදම් අධික බැවින් ආර්ථිකව අවාසි වන අතර මෙය උතුරු පළාතේ මිරිදිය ධීවර හා ජලජීවී වගා සංවර්ධනයට ප්‍රධාන ගැටළුවක්ව පවතී.



එමනිසා උතුරු පළාත සඳහා රු. මිලියන 400.00 ක වියදමින් මිරිදිය මත්ස්‍ය අභිජනන මධ්‍යස්ථානයක් කිලිනොච්චි දිස්ත්‍රික්කයේ ඉරණමඩු ජලාශය ආසන්නයේ 2013 වර්ෂයේ දී ඉදිකිරීම් කටයුතු ආරම්භ කරන ලදී. මේ වන විට එහි ඉදිකිරීම් කටයුතු අවසන් කර ඇති අතර නිෂ්පාදන කටයුතු ආරම්භ කිරීමට සැලසුම් කර ඇත.

මෙම මිරිදිය මත්ස්‍ය අභිජනන මධ්‍යස්ථානය මව් මත්ස්‍ය පොකුණු, මත්ස්‍ය පසු කීටයන් හා ඇසිත්තන් වර්ධන පොකුණු, මත්ස්‍ය රෝග හඳුනා ගැනීම හා ප්‍රතිකාර කිරීම සඳහා විද්‍යාගාරයක්, කාර්යාල ගොඩනැගිලි, ගබඩා සහ නිල නිවාස වලින් සමන්විත වේ.

මෙම මිරිදිය මත්ස්‍ය අභිජනන මධ්‍යස්ථානය මගින් කාප් / තිලාපියා මත්ස්‍ය බීජ මිලියන 08ක් නිෂ්පාදනය කිරීමට සැලසුම් කර ඇත. එසේම කිලිනොච්චි දිස්ත්‍රික්කයේ තෝරා ගත් ජලාශ ආශ්‍රිතව කුඩා පරිමාණ මත්ස්‍ය බීජ නිෂ්පාදන ඒකක ද පිහිටුවීමට සැලසුම් කර ඇති අතර මෙම ඒකක මගින් ඉරණමඩු මධ්‍යස්ථානයෙන් ලබා ගන්නා මත්ස්‍ය ඇසිත්තන් ඇඟිල්ලන් දක්වා වර්ධන කර ජලාශ වලට ලබා දීමෙන් තවදුරටත් මත්ස්‍ය බීජ ඉල්ලුම සපුරාලීමට අපේක්ෂා කෙරේ.



මෙමගින් උතුරු පළාතේ මත්ස්‍ය පැටවුන් තැන්පත් කිරීම ඉහළ නැංවෙන අතර මිරිදිය මත්ස්‍ය නිෂ්පාදනය මෙ. ටොන් 10,000 දක්වා වැඩි කිරීමට සැලසුම් කර ඇති අතර එමගින් ග්‍රාමීය ආර්ථිකයට රු. මිලියන 1300 ක් පමණ දායක කිරීමට අපේක්ෂා කෙරේ.



## Production performance of *Macrobrachium rosenbergii* in culture-based fisheries in perennial reservoirs



At present, there is a high demand for freshwater prawn (*Macrobrachium rosenbergii*) both in the local and export market. Further, incidence of disease in the culture of freshwater prawn is quite less compared to that of the culture of brackish-water prawn. As a result culture of freshwater prawn has become profitable and popular. However, insufficient supply of the seed was a major constraint for the development of freshwater prawn farming in Sri Lanka. Till 2008 there was only one freshwater prawn hatchery in the country, i.e. the hatchery at Pambala and its annual production capacity was one million post larvae. To address this issue, in 2008 with assistance from FAO, NAQDA established a new freshwater prawn hatchery at Kahandamodara that has an annual production capacity of 12million seed. With the establishment of this hatchery NAQDA commenced implementing a programme to culture freshwater prawn in inland perennial reservoirs. It included selection of suitable reservoirs for culture, development of a stocking plan and supply of seed and provision of technical knowhow to farmers.

A total of 68.6 million freshwater prawn seed were stocked in selected reservoirs under this programme during the period of 2008-2014. The first culture trial did not provide a significant harvest. However, the same reservoirs were restocked and culture trials were continued.

The cumulative yield of freshwater prawn produced from the perennial reservoirs from 2008 to 2014 amounted to 1842 Mt. This shows that stocking of freshwater prawn seed in perennial

reservoirs results in a significant production. It was also observed that prawns had grown well in reservoirs with three pieces per kilogram in most cases. Freshwater prawn fetched a price of Rs. 1300.00 at the reservoir, and therefore although the production was much lower compared to finfish, the return was considerably higher. This indicates that *M. rosenbergii* is a promising candidate for culture-based fisheries in perennial reservoirs.

## Structural features and benefits of Cluster Shrimp Farming Complex in Vattavan – Vaharaim, Batticaloa.

The Shrimp farming industry in the Batticaloa district is in the process of developing sustainably. NAQDA has with the funding support of IFAD commenced implementing a special shrimp farming project at Vattavan situated at the Koralepattu North Divisional Secretariat Division for the benefit of the tsunami victims living in the area. The project is aimed at supporting the local community in the improvement of their economy while protecting the ecosystem of the area. This project is implemented as an innovative model for sustainable shrimp farming. Structural features of this model and the benefits it created are as follows.

### Structural features

- The site was selected after a research conducted by NAQDA with the help of the National Aquatic Research and Development Agency (NARA) and Eastern University of Sri Lanka. Findings of the study were validated at a stakeholder consultative meeting convened in collaboration of the Divisional Secretary of the area.
- Twenty seven beneficiaries out of whom eight were women were selected through a structured interview conducted jointly by NAQDA and DS based on pre-decided selection criteria.
- All beneficiaries were organized under a society registered under NAQDA as Vattavan-Vaharai Prawn Farmers' Association.
- A private company, King Aqua Services (Pvt) Ltd was selected following the accepted procedure to provide technical support and marketing management for the venture. The three parties, i.e. NAQDA, the private company and the Farmers' Association entered into a

tripartite agreement to implement the project and settle disputes.

- King Aqua Services (Pvt) Ltd, NAQDA and the Farmers' Association formed a joint venture company called Vaharai Ocean Aqua Clusters (Pvt) Ltd to implement the project. Its Board of Directors consists of Director (NAQDA), Divisional Secretary, representatives from the Farmers' Association, and the private company.
- All twenty seven beneficiaries were made shareholders of the joint venture company.
- The Vakarai Ocean Aqua Clusters (Pvt) Ltd continues to manage the project since its inception in accordance with the best management practices (BMPs) developed to operate the system.

### **Social benefits**

- Women have become entrepreneurs under the project unlike in the conventional production systems.
- Most of the shareholders are fishermen or farmers and thus they are introduced to a new farming enterprise, which enhances their living standards and behavioral pattern as entrepreneurs.
- This Shareholders' group supports 12 Advanced Level students financially for their education.
- Undergraduates conduct their final year research projects at this cluster farm, which provides training to undergraduates from several universities.

### **Economic benefits**

- The project has resulted in increasing the value of land in the area due to establishment of various infrastructure facilities. It has attracted different investors into the area.
- It has transformed an unproductive marshy land into a highly productive land. The project has produced 98 Mt of shrimp during the last two years for the export market. The financial turnover of the company was Rs.91 Mn during the last two years.
- As the input supply and marketing are done by the Cluster Company itself the profit margin and returns to the shareholders are high. Vaharai Ocean Aqua Clusters (Pvt) Ltd. has an

effective and efficient distribution channel through King Aqua Services (Pvt) Ltd.

- Both King Aqua Services (Pvt) Ltd and Ocean Aqua Clusters (Pvt) Ltd have received Rs. 5.4 Mn as dividends and each shareholder member of the Association has received Rs 200,000 as an average net return last year.
- Twenty people living in the Vaharai DS division have been employed in the project. In addition 30 people get seasonal employment during pond preparation and harvesting periods. As a result an income of Rs 2 Mn goes to the community. Thus the project has contributed to poverty alleviation in the area.
- The project has created a skilled and unskilled labour force to work in shrimp farms.
- The project has provided employment to three graduates as farm manager, biologist, and laboratory technician. It shows that even graduates are willing to engage in shrimp farming without waiting for government jobs.
- Shareholders are able to do other businesses as their involvement in the management of the project is minimal.
- The Bank of Ceylon has provided Rs 0.3 Mn as loan to each member of the Farmers' Association. The loan recovery was Rs 0.1 Mn per annum with interest indicating the credit worthiness of shrimp farmers.
- Ceylon Electricity Board receives Rs 10 Mn as annual revenue from the project.

### **Technological benefits**

- The cluster farming complex has set up a demonstration farm to disseminate technology to shareholders and other stakeholders.
- Virgin land and unpolluted water source has a high production potential.
- The cluster farm has common shrimp farming infrastructure facilities that facilitate smooth operations of the project.
- The farm is a re-circulating system that reuses waste water.
- The farm is operated with BMPs.
- New technologies are adopted and demonstrated in the farm



## Ecological benefits

- Sprouting of mangroves has been increasing around the farming area and inside the sedimentation tank.
- Growth and development of mangroves is increasing in the surroundings.
- As waste water discharged is treated to ensure safety standards aquatic flora and fauna are not affected by the project.

## Regional Benefits

- CEB is able to get revenue from a bulk supply of power.
- Eastern Provincial Department of Land Administration collects a minimum of Rs.135, 000 from the project per annum as revenue.
- The project attracts investors for shrimp farming.
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## Walago attu Breeding Programme

An induced breeding programme to breed the catfish, *Walago attu* is being conducted at Aquaculture Development Centre, Dambulla since February this year. *Walago attu* is an endangered species and by conducting breeding programmes it is planned to introduce a new hybrid of this cat fish for freshwater aquaculture. 5000 fry were produced and reared in ponds and after 5 months they weighted 300 – 400 g with the length of 1.5 feet.



## NEWS

### පැණි කොමඩු දත්සල



ශ්‍රී ලංකා ජාතික ජලජීවී වගා සංවර්ධන අධිකාරිය පොසොන් පොහොය නිමිති කර ගෙන සංවිධානය කළ "පැණි කොමඩු දත්සල" ප්‍රති මස 04 වන දින බත්තරමුල්ල, පැලවත්තේ ප්‍රධාන කාර්යාලය අසල පැවැත්විය.

### මුනිදාස ප්‍රේමවන්ද මහතා



ශ්‍රී ලංකා ජාතික ජලජීවී වගා සංවර්ධන අධිකාරියේ 09 වන සභාපති වශයෙන් පත්ව සිටියේ මුනිදාස ප්‍රේමවන්ද මහතාය. එතුමා 2006.01.20 දින සිට 2008.12.15 දක්වා අප අධිකාරියේ සභාපති ලෙස අනගිභවනීය සේවයක් ඉටුකරන ලදී.

කුරුණෑගල දිස්ත්‍රික්කයේ පාර්ලිමේන්තු මන්ත්‍රීවරයකු මෙන්ම බිංගරිය ශ්‍රී ලංකා නිදහස් පක්ෂ ආසන සංවිධායක වශයෙන් ද පත්ව සිටියේය. එපමණක් නොව හිටපු වන සම්පත් නියෝජ්‍ය අමාත්‍යවරයකු වූ එතුමා විශේෂයෙන්ම මෙම අධිකාරියේ යටිතල පහසුකම් සංවර්ධනය

කිරීමේදී ඊට අවශ්‍ය ඉඩම් අත්පත් කරගැනීමට කැපී පෙනෙන දායකත්වයක් සපයන ලදී. අධිකාරියේ ප්‍රධාන කාර්යාලය පවා බේස්ලයින් පාරේ බදු කුලී පදනම මත පිහිටුවා තිබූ අතර පැලවත්ත ප්‍රදේශයේ එය ස්ථාපිත කිරීම සඳහා ඉඩම ලබා ගැනීම සිහිකරන්නේ ඉමහත් හක්කියෙනි.

එපමණක් නොව ආයතනයේ ඉදිකිරීම් කටයුතු ව්‍යාප්ත කිරීමේදී අවශ්‍ය ඉඩම් අත්පත් කර ගැනීමේදී විශාල දායකත්වයක් ලබා දෙන ලදී.

2006 වසරේ මුල්ගල තබන ලද මෙරට මිරිදිය ධීවර සංවර්ධනය වෙනුවෙන් ඉදිකරන ලද කලාවැව ජාතික මිරිදිය ධීවර හා ජලජීවී වගා පුහුණු මධ්‍යස්ථානය මෙන්ම විසිතුරු මත්ස්‍ය වගා පුහුණුව වෙනුවෙන් ඉදිකරන ලද රම්බඩගල්ල පහුණු මධ්‍යස්ථානයේ නව ගොඩනැගිලි මේ අතර කැපී පෙනෙයි. මිරිදිය ඉස්සන් අභිජනන මධ්‍යස්ථානයක් කහදමෝදර පිහිටුවීම සඳහා දායකත්වය ලබා දෙන ලදී.

මීට අමතරව 2006 වර්ෂයේ මොණරාගල සහ අනුරාධපුර දිස්ත්‍රික් ජලජීවී වගා ව්‍යාප්ත කාර්යාල ද 2007 වර්ෂයේ කුරුණෑගල දිස්ත්‍රික් ජලජීවී වගා ව්‍යාප්ත කාර්යාලය පිහිටුවීම ද ඔහුගේ කාර්යභාරයට එක් වූ තවත් එක් ව්‍යායමයකි.

ඉතා කෙටි කාලයක් තුළ මෙම අධිකාරියේ සංවර්ධනය සඳහා කැපී පෙනෙන දායකත්වයක් ලබා දුන් එතුමා ඉන් අනතුරුව ධීවර සංස්ථාවේ සභාපති ලෙස පත්ව ගියේය. ඉතා කෙටි කාලයක් තුළ ආයතනයේ ප්‍රගමනය වෙනුවෙන් එතුමාගෙන් ඉටු වූ මෙහෙවර අප්‍රමාණ වේ. 2014. 11.05 වන දින මෙලොවින් සමුගත් එතුමාට නිවන් සුව ප්‍රාර්ථනා කරමු.

## Sea bass Sea Cages

A large scale seabass farming in cages with an investment of US \$ 04 million commenced operation in the Trincomalee sea area. Objective of this venture is to introduce commercial scale marine based farming of finfish to Sri Lanka. This will also create

livelihood to coastal community through direct employment, reduce pressure on wild fishery and provide a consistent supply base, generate export revenue, added tourist attraction, and provide forward linkage opportunities such as value added fish production.



Distribution of boats and fishing gears



Ministry of Fisheries & Aquatic Resources and Development annually provides canoes and fishing nets to the fishers free of cost for facilitating their livelihoods. In 2015, the Ministry is due to distribute 600 boats and 5000 fishing nets to inland fishers. Minister of Fisheries and Aquatic Resources Development Hon Mahinda Amaraweera has handed over 50 canoes and 200 fishing nets recently to the fishers of the Hambantota and Puttalam districts at a total cost of Rs. 6 million.

**Table1: Inland and Aquaculture Fish Production**

Year	Inland Fisheries & Aquaculture	Coastal Aquaculture	Total Production
2012	65,640	3,310	68,950
2013	62,480	4,430	66,910
2014	70,600	5,150	75,750

The inland fish and aquaculture production grew significantly by 13% to 75,750 Mt. in the year 2014 which was an increase of 8,840 Mt. over that in the year 2013. Mainly the proper management of the water bodies with community participation, operation of community based mini-hatcheries, fish seed production, fish fingerling and freshwater prawn post larvae in reservoirs have been adapted for increase of inland fish and aquaculture production. Also the cultured prawns/ coastal aquaculture production increased during the year due to the control of the spread of disease as a result of the implementation of best practices and the expansion of farms. The depleted water levels in reservoirs also help to increase the inland fish production.

**Figure 1: Inland and Aquaculture Fish Production by major species - 2014**

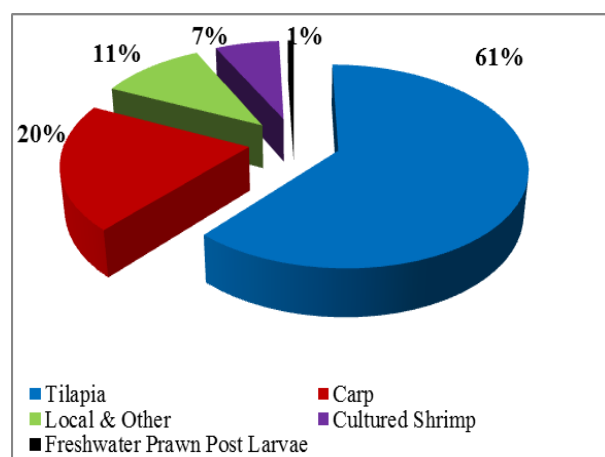
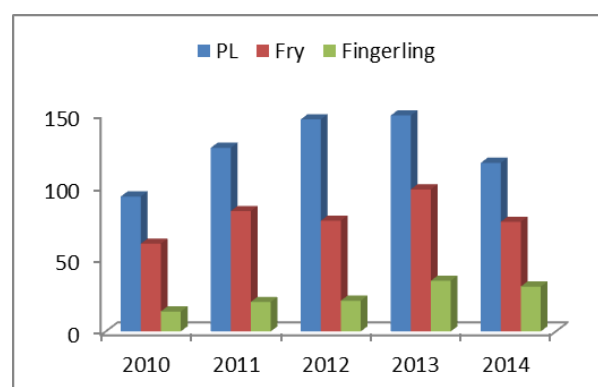


Figure 2 shows the total Carp/Tilapia seed production from AQDC and major part of fry were sold to community based organizations, mini hatcheries, and private pond operators for rearing to fingerling size.

**Figure 2: Fish seed production – AQDCs**

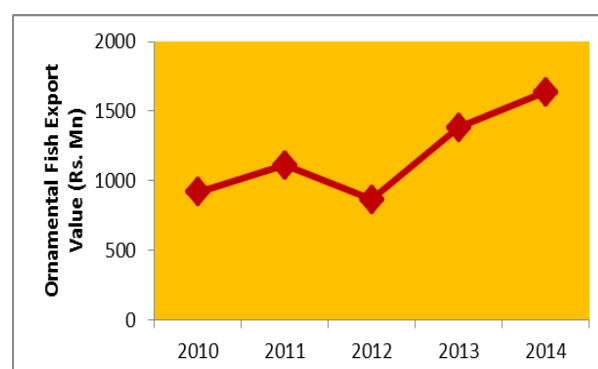


**Table2: Freshwater Prawn Post Larvae Production**

Year	Freshwater Prawn Post Larvae Production (Mn)
2010	13.04
2011	12.20
2012	16.75
2013	20.30
2014	10.54

Figure 3: Shows Sri Lanka's performance in ornamental fish trade during the 2010 – 2014.

**Figure 3: Export value of Ornamental Fish**



Source: Statistical Unit – Ministry of Fisheries & Aquatic Resources  
National Aquaculture Development Authority (NAQDA)  
Export Development Board (EDB)



## NEWS

### New Ornamental Fish Varieties at Ornamental Fish Breeding Centre, Ginigathena



Swordtail Half black



Pineapple wag



Swordtail pineapple comet

### “Diyawara Diriya”

A loan scheme named “Diyawara Diriya” launched by the Ministry of Fisheries and Aquatic Resources Development together with Bank of Ceylon (BOC) to the development of aquaculture sector and Rs. Mn. 73.45 were released among 113 loan applicants within 1<sup>st</sup> half of 2015.

### New Regulations

The following regulations have been promulgated recently.

- *Culture of Coral Species on artificial substrates for export regulation*
- *Collecting and Supply of brood shrimps in order to breed brackish water shrimps (Penaeus species)*

### Contributions to Aquaculture News

*Aquaculture News* is another public service offered by NAQDA to fulfill the information needs of the Inland Fisheries and Aquaculture Sector in Sri Lanka. It is aimed at timely dissemination of information on inland fisheries and aquaculture sector to a wide spectrum of stakeholders who are contributing to the sector in different ways. Therefore it is not a newsletter belonged to NAQDA alone but belonged to the entire sector. *Aquaculture News* welcomes your views, ideas, opinions, comments as well as suitable news and technical features to be published selectively. The Editorial Board reserves all the rights regarding the decisions on publication of such items.

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