



Ministry of Fisheries and Aquatic Resources Development



National Aquaculture Development Authority AQUACULTURE NEWS

Volume 08: Issue 03 & 04

2011 September & December

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World Fisheries Day – 21st November

World Fisheries Day was celebrated on 24th November 2011 with the participation of Hon. Dr. Rajitha Senaratne, Minister of Fisheries and Aquatic Resources Development, Hon. Susantha Punchinilame, Deputy Minister of Fisheries and Aquatic Resources Development, Officers of the Ministry, Officers of other institutions under the Ministry and representatives of District Fisheries Federations. This event was organized by the Ministry of Fisheries and Aquatic Resources Development and held at the auditorium of National Aquaculture Development Authority of Sri Lanka.



Brackish Water Shrimp Hatchery

Brackish water Shrimp hatchery at Puthukudirippu, Batticaloa was ceremonially declared open by Hon. Dr. Rajitha Senaratne, Minister of Fisheries and Aquatic Resources Development, on 09th October 2011.



Hon. Susantha Punchinilame, Deputy Minister of Fisheries and Aquatic Resources Development, Hon. V. Muraleetharan, Deputy Minister of Resettlement, Dr. (Mrs.) Damitha de Zoysa, Secretary to the Ministry of Fisheries and Aquatic Resources Development, Mr. Jayantha Chandrasoma, Chairman NAQDA, Officers of the Ministry of Fisheries and Aquatic Resources Development, National Aquaculture Development Authority of Sri Lanka, Shrimp Farmers were present at this event.

This hatchery is the first shrimp hatchery established in the East and it is managed by the Kings Aqua Ltd. under Public – Private Partnership.

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Asia Regional Ministerial Meeting on Aquaculture for Food Security, Nutrition and Economic Development



Asia Regional Ministerial Meeting on Aquaculture for Food Security, Nutrition and Economic Development was held on 28th and 29th July 2011 at Hilton Colombo. The objective of the meeting is to build consensus on common strategies for improving contribution of Asian aquaculture to Asia Region food security, nutrition and economic development and global food fish production for regional cooperation.



Ninety representatives from Seventeen countries including 13 Ministers Deputy Ministers in charge of the subject of Fisheries participated at this ministerial meeting. The meeting was inaugurated by the His Excellency Mahinda Rajapaksa the President of Sri Lanka on 28th July 2011 and delivered the keynote address. Hon. Dr. Rajitha Senarathne Minister of Fisheries and Aquatic Resources Development, Hon. Basil Rajapaksa Minister of Economic Development, Hon. Susantha Punchinilame Deputy Minister of Fisheries and Aquatic Resources Development,

Mr. Arni M. Mathiesan FAO, Mr. Patrick T Evans FAO Country Representative and Prof. Sena S. de Silva Director General (NACA) participated at the inauguration.



Pre - Ministerial official meeting was also held on 26th July 2011 at Hotel Taj Samudra, Colombo.

NAQDA on behalf of the Government of Sri Lanka organized the meeting in collaboration with the Food and Agriculture Organization (FAO) of the United Nations and Network of Aquaculture Centers in Asia-Pacific (NACA).



The participating countries endorsed the Colombo Declaration on the 29th July. Participating countries have resolve to commit their resources and support and collectively agreed to exert political leadership.



The Cat Fish (*Pangasius sutchi*)



Breeding of Cat fish (*Pangasius sutchi*), which is a popular ornamental fish species in Sri Lanka, was successfully carried out on commercial scale at Rambadagalla, Ornamental Fish Breeding and Training Centre. A practical training programme is scheduled to be conducted in May 2012, to disseminate knowhow of breeding to the interested people of the aquarium industry. This fish is an exotic fish and breeding of this fish species in the country will help in saving foreign exchange by reducing the imports. Cat fish larvae, juveniles, sub adults and broodstock can be purchased from Ornamental Fish Breeding and Training Centre at Rambadagalla.



ARDQIP rated as a highly successful project by the Project Completion Review Mission

Aquatic Resource Development and Quality Improvement Project (ARDQIP), which was funded by the Asian Development Bank and the government of Sri Lanka and implemented under the Ministry of Fisheries & Aquatic Resource Development has received a very high rating (highly successful) at the Project Completion Review Mission conducted by the Asian Development Bank recently. Main implementing Agency for the Project was National Aquaculture

Development Authority of Sri Lanka. This 30 Million US Dollar project aimed at promoting market driven Inland Fisheries and Aquaculture development, especially in rural areas to enhance food security and reduce poverty. This seven year project was closed in September 2010.

Establishing Mini Nurseries in Northern Province

There are number of inland reservoirs with an area around 40,000 ha that can be utilized for inland fish production in Northern Province. During the past thirty years the civil war prevailed in the area hindered implementation of reservoir fisheries development in the North. Most of the reservoirs are productive and can be used for culture based fisheries. The sustainable development of available resources could enhance livelihoods, food security, nutrition and employment opportunities. Main constraint for the sustainable development of inland fisheries in Northern Province is a non-availability of adequate number of fish seed to meet the requirements.

Therefore, action is being taken to set up four mini-nurseries at Giant Tank – Mannar, Muthiyankaddu - Mulaithivu, Puthumurippu and Kariyalainagapaduwa – Kilinochchi to be managed by fisheries societies.

This will facilitate increase in fish production in the Northern Province. Other benefits include enhance availability of freshwater fish at affordable prices, enhance nutrition among rural poor, providing employment opportunities, higher income for rural poor thus strengthening rural economy.



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Hirikanaya Selective Breeding Programme

Hirikanaya (*Labeo dussumieri*) is a tasty indigenous fresh water fish in Sri Lanka. It is a very popular fish among the villagers though it has more bones than exotic carp species. Major disadvantage of this species as a potential species for Aquaculture and culture based fisheries is the slow growth rate. To overcome this NAQDA decided to conduct a selective breeding and broodstock improvement programme at Udawalawe (Carp) Breeding Centre with assistance of World Fish Centre, Malaysia. The project started in 2007. The main objective of this programme is to increase the growth rate of this fish.



Background of the project, methods applied and current status is as follows.

Base population

Hirikanaya brooders were collected from reservoirs from North Central, Eastern, Sabaragamuwa and Uva province in Sri Lanka. The brooder fish collected were conditioned for a period of about one month in mud ponds.



After conditioning, they were tagged using Passive Integrated Transponder (PIT) tags and kept in four rearing mud ponds up to size of mating.

Mating of Fish

	Uva	Sabaragamuwa	North Central	Eastern
Uva	X	X	X	X
Sabaragamuwa	X	X	X	X
North Central	X	X	X	X
Eastern	X	X	X	X

Mating between brooders collected from each Province was carried out. Induced breeding of six pairs in each reciprocal cross was done by using ovaprim hormone in separate breeding hapas. Total of 91 families were produced. From each family 1000 hatchlings were transferred into rearing hapas placed in an earthen pond. Three replicate of each family were maintained up to 10-12g of body weight and tagging was initiated. 40 individuals from each family were tagged using PIT tags. Body weight, total length, width and depth were measured at the tagging. Tagged juveniles were stocked in two communal mud ponds up to marketable size (250-300g).



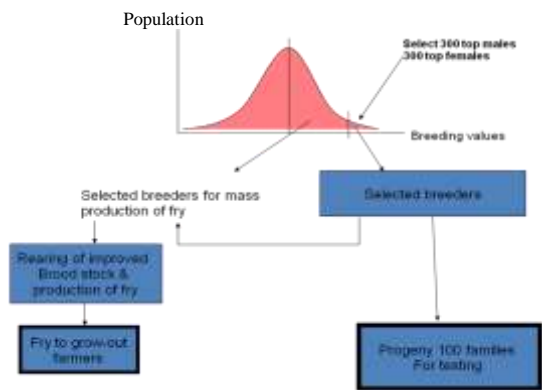
Statistical analysis

Basic statistical analysis will be performed using SAS. Full sib, half sib and individual data will be considered for breeding value estimation purposes.

Selection of brood stock for next generation

Selection for next generation will be done based on breeding values estimated on all available data from pond culture.

Preliminary ranking - a sufficient no. of top ranked brood stock should be conditioned for mating of next generation.



Selection of breeders and dissemination of genetically improved fry to farmers

Dissemination of improved Hirikanaya

According to the breeding value, the fishes that are above the mean will be reared for brood stock for mass production and fry will be given to the farmers.

Present status

4000 fishes were tagged in F1 generation. Further reared up to their average body weight near 160 g and all fishes were measured. Finally top 600 fishes were selected for F2 generation. Among these 600 fishes, 90 families were grouped to become parents for F2 generation. Now breeding of 50 families have been completed and tagging of F2 generation also completed. To select brooders for F3 generation same procedure is being applied and genetical gain will be measured.

“Diyawara Diriya” loan scheme

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.

News

Red Tilapia from Thailand

Tilapia has a very good demand in the local and export market. In order to promote commercial Tilapia farming, NAQDA imported 4000 numbers of red tilapia fry from Thailand to Aquaculture Development Centre, Dambulla to breed and supply fingerlings and broodstock to the farmers. Selective breeding process will be applied to maintain the characters of the fish for aquaculture.



Culture of *Penaeus vanamei*

As there were requests from shrimp farmers in the North Western Province to permit commercial culture of *Penaeus vanamei*, Ministry of Fisheries and Aquatic Resources Development has taken a policy decision to allow a pilot project as an initial step for culture of *Penaeus vanamei* in the country. In this regard an Import Risk Analysis (IRA) was conducted. The IRA was carried out by Dr. Richard Arther under the FAO sponsored Southern Aquaculture Development Project. The recommendations of IRA were considered by NAQDA in approving and implementation of the pilot project.



Broodstock rearing of *Tor khudree* (Lella)



Programme to breed *Tor khudree* (Lella) an indigenous species commenced at Ornamental Fish Breeding Centre-Ginigathhena, as this area provides a climatic conditions suitable for this species. Broodstock is being reared at the Centre and signs of maturity are visible at present. This is a potential species for aquaculture and sports fishing in particularly for colder climates in Sri Lanka.



Rehabilitation of AQDC at Polonnaruwa



The state patronage for development of inland fisheries and aquaculture was discontinued in 1990 due to policy decision taken by the then Government. AQDC at Polonnaruwa together with other stations were leased out to the private sector on long term lease. This Centre was leased out to Ujay Aqua Enterprises in 1992. In order to increase fingerling production, NAQDA has

taken back the Polonnaruwa Aquaculture Development Centre. Polonnaruwa Centre was in very neglected stage and part of facilities were rehabilitated with funds provided under Ministry of Fisheries and Aquatic Resources Development in 2011 and at present this Centre is used as for fry / fingerling rearing Centre and for Tilapia mono-sex fry production.

Recruitment of New District Aquaculture Extension Officers, Aquaculturists and Aquaculture Extension Officers

As instructed in the management circular 2006, the restructuring of institution has been completed. New scheme of recruitment was also formulated on the guidelines provided by Department of Management Services of the General Treasury. Recently 30 young graduates and 20 agriculture/aquaculture diploma holders were recruited for the vacant positions of NAQDA. With the filling of these vacant cadre positions, seed production and extension activities of NAQDA strengthen considerably. The new appointees received appointment letters from Hon. Dr. Rajitha Senarathne, Minister of Fisheries and Aquatic Resources Development at the function held at the Board Room of the NAQDA.



Receiving appointment letters from Hon. Minister



Senanayake Samudraya

Profile

Table 1: Contribution of Inland Fisheries and Aquaculture to Annual Fish Production of the country

Year	Inland and Aquaculture Fish Production (Mt)	Annual Fish Production (Mt)	Contribution of Inland and Aquaculture (%)
2007	38,380	291,050	13.18
2008	44,490	319,120	13.9
2009	46,560	339,730	13.7
2010	52,410	384,670	13.6

Figure 01 shows the contribution of major species for Inland Fish production in 2010.

Figure 01: Inland and Aquaculture Fish Production by major species - 2010

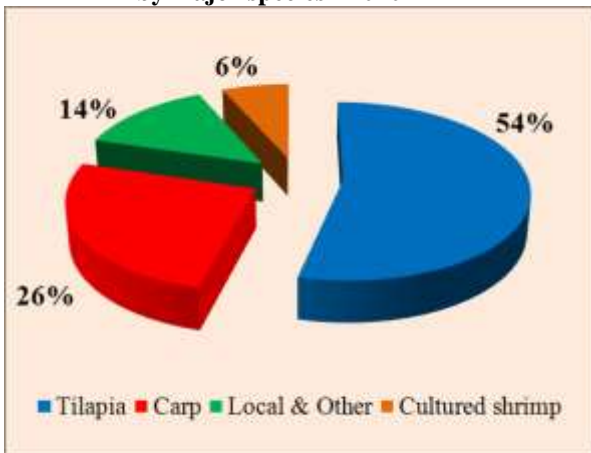


Table 02: Brackish water Shrimp Production

Year	Aquaculture (Mt)	Wild Capture (Mt)	Total Production (Mt)
2007	3580	7320	10,900
2008	2230	9240	11,470
2009	3550	13110	16,660
2010	3480	17640	21,120

Figure 2 shows the Sri Lanka's performance in Ornamental Fish industry during 2005 – 2010

Figure 02: Export Value of Ornamental Fish

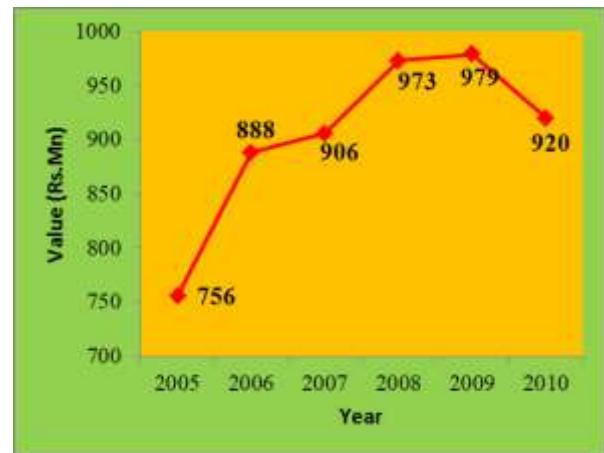
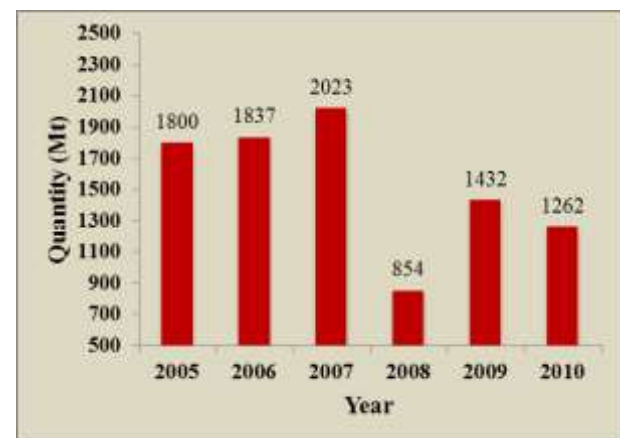


Table 3: Retail prices and Wholesale prices of Tilapia in Colombo Region

Year	Retail Price in Colombo Region (Rs/Kg)	Wholesale Price in Colombo Market (Rs/Kg)
2007	229.1	123.08
2008	278.54	169.62
2009	258.92	159.56
2010	266.29	161.56

Figure 03: Export Quantity of Brackish water Shrimp



Source: Statistical Unit – Ministry of Fisheries & Aquatic Resources Development
National Aquaculture Development Authority of Sri Lanka (NAQDA)

NEWS



Min Visithuru 2012
*Exhibition of Ornamental Fish,
Aquatic Plants and Accessories*

3rd-5th August
**Sri Lanka Exhibition & Convention Center,
Colombo 01**

Ministry of Fisheries & Aquatic Resources Development
National Aquaculture Development Authority of Sri Lanka

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Divi Neguma Programme

Eight programmes under Divi Neguma are being implemented by NAQDA. 992 beneficiaries were selected for fry to fingerling rearing, food fish culture in ponds, integrated fish farming and ornamental fish farming. 777 no. of beneficiaries were trained and around Rs. 12 million were released to the beneficiaries to carry out the projects.



Hon. Basil Rajapaksa, Minister of Economic Development handing over a cheque to a beneficiary together with Hon. Milroy Fernando, Senior Minister, Hon. Dr. Rajitha Senaratne, Minister of Fisheries and Aquatic Resources Development and Hon. Susantha PUNCHINILAME, Deputy Minister of Fisheries and Aquatic Resources Development.

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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