

## REPORT OF THE CHAIRMAN

On 1st January 1982 the Governing Board of the National Aquatic Resources Agency consisted of the following:

A. Appointed by the Hon. Minister -

Dr. Hiran W. Jayewardene, Chairman

Professor K.D.Arudpragasam

Mr. R. Bhuvanendran.

Professor H.H. Costa

Professor Sena de Silva

Mr. M. Visuvalingam

Dr. E.C.M. Waas

Lr. M.M.J.W. Herod.

B. Ex-officio Members -

Mr. Anura Weeraratne,  
Secretary Ministry of Fisheries.

Mr. Justin Dias  
Secretary, Ministry of Industries & Scientific Affairs

Dr. R. Mahalingasivam  
Representative Ministry of Finance

Mr. Aloy W. Fernando  
Acting Director General.

On January 17th 1982 Mr. T.T.A.J.C. Samarasinghe was appointed Secretary to the Governing Board.

On June 1st 1982 Dr. S.K. Onil Perera was appointed Director General of the Agency.

17 Meetings of the Governing Board 9th to 25th were held on 26th January, 3rd February, 17th February, 5th March, 19th March, 7th April, 22nd April, 11th May, 21st May, 4th June, 22nd June, 22nd July, 12th August, 10th September, 8th October, 26th November and 27th December respectively.



Some of the more important matters discussed and decisions taken at the meetings of the Governing Board during the year under review are -

1. Evaluation of the Work Market potential for Ornamental Fishery and working out a strategy to develop the Ornamental Fishery Industry.
2. Setting up of an Ornamental Fishery demonstration plot.
3. Formulating a Physical Resources Research Programme.
4. ESCAP Regional Project for the Protection of the Marine Environment, and related eco systems.
5. Continuation of the Parakrama Samudra Limnology Project.
6. Establishment of a Marine Products Quality Control Laboratory.
7. Studies on Ship Wrecks.
8. Leasing of land at Kalpitiya to establish a Research Centre.
9. Holding of a National Workshop on Research and Development Activities.

Dr. Hiran W. Jayewardene  
Chairman.



## PERFORMANCE REPORT 1982

The National Aquatic Resources Agency was established under an Act of Parliament in September, 1981. However, a considerable amount of time was taken to formulate the Research Programme and for its execution. Except for few divisions that were in existence the Research programme for other divisions was formulated and approved by the Scientific and Technical Committee of the Agency in May, 1982.

I am giving below a list of Research projects undertaken by Research divisions of this Agency in 1982.

### 1. MARINE FISHERIES DIVISION

#### (a) Study of the Coastal Inshore Fishery, With Special Reference to beach-seine and Small net gill net fishery.

The Study of the coastal inshore fishery commenced only in October with the commencement of the beach-seine fishery in the West Coast.

#### (b) Study of the Tuna Fishery

This project was started in June and initial studies were confined to the western part of the island from Kandakulai to Kirinda. The principle objectives of this project is to study the migratory pattern of Tuna with the ultimate aim of maximizing utilization of this valuable resource.

#### (c) Study of the Prawn Fishery

The Study of Prawn Fishery was conducted at Mutuwal, Negombo and Chilaw. This involved monthly sampling of prawns in order to establish the catch composition, by-catch, sex and maturity of prawns.



2. INSTITUTE OF FISH TECHNOLOGY

This division was in existence before the organisation of this Agency. The Research Programme of this Institute continued throughout the year 1982 and the progress made in connection with the projects undertaken by this division is as follows:

a. Quality Control Work related to Marine Products

The work in connection with this project was involved in the improvement of the quality of the marine products that are being exported. In this connection, arrangements have been made to organize a separate laboratory to undertake the Micro-biological examination of all marine products prior to shipment.

b. Development of the Quality of Traditional Fishery Products

This project was undertaken with a view to develop the quality of traditional cured fish products such as Jadi by the use of antioxidants and mold in-hibitors to arrest the rancidity and mold growth in these products with a view to extend their shelf life.

c. Quality and Storage Life of Wet Fish under Various Storage Conditions

The work involved in this project was initiated to establish the optimum conditions under which wet fish could be stored over long periods of time.

d. Packing materials and methods used as substitutes for Canning.

The work undertaken under this project is aimed at finding out suitable heat resistant material that could withstand sterilization as the pouches made of this material will be used in place of cane in the canning industry of fish and fishery products.



Experiments have revealed the possibility of packing sardines in Chilli and Tomato sauce using these pouches.

e. Use of Papain and Bromelaine in the preparation of fish Hydrolystates.

Papain and Bromelaine are hydrolytic enzymes which could be used to hydrolyse fish extracts prepared out of silverbelly and other varieties of trash fish.

These fish hydrolystates when concentrated are very much similar to vegetable extracts such as Marmite, Vegemite, etc. As this product had a slight bitter taste studies are underway to reduce their off-flavours.

f. Commissioning of the Fish Filleting and Fish Meal Plant at Polonnaruwa.

The Research staff was involved in attending to Technical matters in connection with the Commissioning of the above Plant. This plant would commence operations early February 1983.

3. INLAND AQUATIC RESOURCES UNIT

Three major projects were undertaken by this division during the period June to December 1982. The progress of these projects are as follows:

a. Puttalam Lagoon Project

This is an intergrated project covering a number of aspects of the Puttalam Lagoon such as Hydrobiological studies, investigation of the present status and potential of the lagoon fishery, mangrove vegetation and Socio-economic survey of the Fishing Community.



b. Studies of the Freshwater Fish Production in the Major Water Bodies in the Polonnaruwa District.

This project was undertaken in order to ascertain the production levels of fish of our major water bodies in the Polonnaruwa district. Work in this connection was involved in the collection of monthly data on fish catches, effort, species composition and size composition of commercially important fish species.

c. Mussel culture project

This project commenced in November, 1982 with the deployment of two rafts at Trincomalee. A comprehensive project proposal on Mussel culture was formulated and submitted to IDRC for funding. Preliminary investigations are also underway to establish suitable culture sites along the coastline of the island.

4. OCEANOGRAPHY UNIT

This is a new division organised under this Agency. As such a fair amount of time had to be devoted to the identification and formulation of Research Projects to be undertaken by this Division.

The following activities were undertaken by this Division during the period under review.

- a. Literature survey on Mineral Exploration of off-shore areas.
- b. Literature survey in order to evaluate the resource potential of the coastal areas of Sri Lanka including the Continental shelf.

5. STATISTICS AND DATA PROCESSING

The following projects were undertaken by this division.

- a. Chilaw Karuppan Project
- b. Jaffna Karainagar Project

These projects were undertaken in order to improve the methods employed for the collection of fisheries data.



c. Hambantota project and Socio Economic Survey

This is a project which is hoped to be carried out in collaboration with NORAD to determine the Socio-Economic condition of the fishing community.

d. Library

The officers of this division were also involved in the organisation of the library.

6. SERVICE AND OPERATIONS

The work of this division is involved in providing the other divisions of this Agency, with the necessary services.

7. SPECIAL PROJECTS

The following Special Projects were undertaken during the period under review:

- a. Ornamental Fishery.
- b. Development of Non Traditional Aquatic Food Stuffs.
- c. Fishing with Explosives.
- d. Marine Parks.
- e. Reconnaissance survey of coastal areas.
- f. Development of the NARA lagoon.
- g. Whales and Marine Mammals.
- h. Environmental studies.

JANUARY 1983.



No: LP/D/C/NARA/82

Auditor General Department,  
Torrington Square,  
Colombo 7.

The Chairman,  
National Aquatic Resources Research  
and Development Agency.

October 18, 1984.

Auditor General's Report in terms of Section 14(2)(c) of the Finance Act,  
No. 38 of 1971 on the accounts of the National Aquatic Resources Research  
and Development Agency for the Year ended December, 31, 1982

The audit of the accounts of the National Aquatic Resources Research and Development Agency for the year ended December 31, 1982 was carried out under my direction in pursuance of Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No. 38 of 1971. My observations which I consider should be published with the Annual Report of the Agency in terms of Section 14(2)(c) of the Finance Act appear in the paragraphs that follow. A more detailed report in terms of Section 13(7)(a) of the Finance Act was furnished to the Chairman, the Secretary to the Ministry of Fisheries and the Secretary to the Ministry of Finance and Planning on June 15, 1984.

1:2 Scope of Audit:

Audit opinion, comments and findings in this report are based on a review of the financial statements presented to Audit and substantive tests of samples of transactions. The scope and extent of such reviews and tests were such as to enable as wide an audit coverage as possible within the limitations of staff, resources and time available to me. Sub-sections (3) and (4) of Section 13 of the Finance Act, give discretionary powers to the Auditor General to determine the scope and extent of the audit.

2. Accounts:

2:1 Rendition of Accounts:

Accounts for the year ended December 31, 1982 were furnished to audit on September 26, 1983. Subsequently, amended accounts were furnished to audit on December 15, 1983 with a request that the accounts submitted earlier be treated as cancelled. Comments in this report relate to the amended accounts furnished on December 15, 1983.

2:2 Opinion:

In view of the comments appearing in this report, I am unable to express an opinion on the accounts presented.



2:3 Financial Results:

According to the accounts, the working of the Agency for the year ended December 31, 1982 resulted in an excess of income over expenditure of Rs.3,928,149 compared with Rs.235,067 for the period September 16 to December 31, 1981. The financial result had been arrived at by treating the entire Government Contribution of Rs.7,800,000 which included a sum of Rs.1,300,000 received on January 31, 1983 as income for the year. During the preceding period, however, a sum of only Rs.953,000 out of the Government Contribution of Rs.7,134,000 had been treated as income in the accounts.

The following statement shows the financial results for the year ended December 31, 1982 and for the period September 16, to December 31, 1981, according to the accounts submitted.

	Year ended December 31, 1982		Period Sept., 16 to December 31, 1981	
	Rs.	Rs.	Rs.	Rs.
<u>Income</u>				
Government contribution	7,800,000		953,000	
Sundry income	<u>1,500</u>	7,801,500	<u>-</u>	953,000
<u>Deduct Expenditure</u>				
Salaries and wages	2,816,459		415,728	
Board expenses	11,708		12,948	
Consultancy fees	26,597		-	
Entertainment	30,385		584	
Fuel	38,042		5,016	
Advertising	73,987		39,054	
Security service	87,537		-	
Electricity	164,158		60,000	
Establishment charges	413,650		151,242	
Administration expenses	<u>10,828</u>	<u>(3,873,351)</u>	<u>33,361</u>	<u>(717,933)</u>
Excess of income over expenditure		<u>3,928,149</u>		<u>235,067</u>



2:4 Financial Structure:

The financial structure of the Agency as at December 31, 1982 compared with as at December 31, 1981 is given below:

	<u>As at December 31</u>			
	<u>1982</u>		<u>1981</u>	
	Rs.	Rs.	Rs.	Rs.
<u>Resources</u>				
Government contribution, as at January		7,134,000		
<u>Add:</u> Received during the year/period September 16 to Dec. 31, (represents recurrent and capital contributions)		<u>7,800,000</u>		<u>7,134,000</u>
		14,934,000		7,134,000
<u>Deduct: Expenditure:</u>				
Balance brought forward	717,933			
<u>Add:</u> Expenditure for the year	3,873,351	<u>3,871,851</u>	<u>(4,589,784)</u>	<u>717,933</u>
		10,344,216		6,416,067
<u>Less:</u> Sundry income	<u>1,500</u>			
<u>Utilisation:</u>				
Fixed assets		4,433,394		19,290
Current assets	6,250,099		6,542,614	
<u>Less:</u> Current Liabilities	<u>339,277</u>	<u>5,910,822</u>	<u>145,837</u>	<u>6,396,777</u>
		10,344,216		6,416,067

2:5 Source and Application of Funds:

The following statement shows the source and application of funds of the Agency during the year under review:-

	Rs.	Rs.
<u>Source:</u>		
Excess of income over expenditure	3,928,149	
<u>Add:</u> Adjustment for items not involving the movement of funds Depreciation	<u>1,929</u>	3,930,078
<u>Application:</u>		
Addition to fixed assets		<u>(4,416,033)</u>
Decrease in working capital as analysed below:		(485,955)



Effect on working capital

	<u>Increase</u> Rs.	<u>Decrease</u> Rs.	Rs.
Increase in Debtors	5,188,696	-	
Increase in Advances and Deposits	54,016	-	
Increase in creditors	-	4,261	
Increase in expenses	-	181,459	
Increase in deposits	-	7,721	
Decrease in cash in hand and Bank	-	<u>5,535,226</u>	<u>485,955</u>
	<u>5,242,712</u> =====	<u>5,728,667</u> =====	

2:6 Comments on Accounts:2:6:1 Government Contribution:

(i) The following differences between the amounts shown in the accounts and the Treasury books were observed.

Item	Amount shown in the account	Amount shown in the Treasury books
Government Contribution upto December 1982	14,934,000	12,681,000
Deposit Account with the Treasury	-	1,600,000
Government Contribution during 1982	7,800,000	6,500,000

The difference was due to treating erroneously the Contribution of Rs.1,300,000 received in January 1983 as receipt for the year under review.

(ii) The Agency had not classified the contribution as capital and recurrent separately, but accounted for it as income for the year. However, the Government Contribution in the annual estimates under the Ministry of Fisheries for the year 1982 had been classified as follows:

Recurrent Expenditure (136-1-01(07))	Rs.3,600,000
Capital Expenditure (136-1-103-11(3))	<u>Rs.4,500,000</u>
Total:	<u>Rs.8,100,000</u> =====



According to Treasury letter regarding the release of money to the Agency the charge to Capital Vote (136-1-103-11(3)) was Rs.5,500,000 while the Contribution for recurrent expenditure was Rs.1,000,000. The sum of Rs.1,300,000 released in January 1983 had also been charged to recurrent vote.

2:6:2 Capitalisation of Expenditure:

A sum of Rs.551,978 being expenditure on travelling, fuel glassware and consumable stores had been erroneously capitalised in the accounts.

It was observed that the Board had not decided on a policy for the classification of expenditure between capital and revenue items such as travelling, fuel and subsistence had been capitalised as the money allocated for recurrent expenditure was not sufficient and the relevant expenditure had been incurred out of provision for capital expenditure.

2:6:3 Transfer of Assets from the Ministry:

It was mentioned in my report on the accounts for the period September 16, to December 31, 1981 that the Agency was in possession of all properties which previously belonged to the Institute of Fish Technology and the Research Division of the Ministry of Fisheries but the vesting of these assets in the Agency had not been published in the Gazette by the Minister in terms of Section 35 of the Act. It was also mentioned that these assets should have been valued and brought to account in terms of Treasury Circular No. 842 of December 19, 1978. No action had, however, been taken in regard to this matter during the year under review too.

2:6:4 Accrued Expenses:

(i) A sum of Rs.26,507 being accrued expenses at the end of the previous period remain unsettled even at the end of the year under review.

(ii) No provision had been made in the accounts for the payment of audit fees in respect of 1981 and 1982.

2:6:5 Evidence for Audit:

The following accounts could not be satisfactorily vouched or accepted in audit due to reasons indicated against each item.



(6)

<u>Account</u>	<u>Value Rs.</u>	<u>Reasons</u>
(a) Fixed Assets	4,435,323	(i) Non-maintenance of register of fixed assets. (ii) Non-verification of (physical) assets at the end of the year or during the year.
(b) Sundry Debtors	5,203,296	(i) Non-availability of agreement and cost estimate in respect of an advance of Rs. 5 million paid to the Ministry for effecting improvements to buildings. (ii) Non-maintenance of subsidiary records and control account. (iii) Absence of confirmation of debts. (iv) Absence of detailed schedule with regard to Rs.52,895 brought forward from previous period. (v) Absence of age analysis of debts. (vi) Absence of provision for bad debts.
(c) Advances & Deposits	100,891	Non maintenance of register of advances and deposits.
(d) Creditors & accrued expenses	331,556	(i) Non-maintenance of subsidiary records and control accounts. (ii) Absence of confirmation of liability. (iii) Non-availability of detailed schedule in respect of Rs.4,110 brought forward from previous period.
(e) Personal emoluments	1,788,074	(i) Absence of an approved cadre and salary scales for the Agency. (ii) Non-availability of particulars relating to salary placements of officers.
(f) Bank balance	945,913	Absence of conformation.



2:6:6 Quantifiable errors:

Errors detected in audit which could be quantified had the following effects on the accounts:

- (a) Financial results understated by Rs.305,320
- (b) Net assets understated by Rs.294,680
- (c) Working capital understated by Rs.756,000.

3. Financial and Operating Review:

3:1 Financial Results:

The financial result for the year under review was an excess of income over expenditure of Rs.3,928,149 compared with Rs.235,067 for the preceding period from September 16 to December 31, 1981. As stated in paragraph 2:3 above this was mainly due to the Agency accounting for the entire Government Contribution of Rs.7,800,000 for the year as income and the expenditure incurred on travelling, fuel, glassware consumable stores amounting to Rs.551,978 being capitalised as referred to in paragraph 2:6:2 above.

Salaries and wages amounting to Rs.2,816,459 represented approximately 72 percent of the total expenditure for the year while the establishment and administrative charges amounted to Rs.624,478 or 16 percent. The Agency had also incurred an expenditure of Rs.87,537 on Security Services during the year under review.

3:2 Debt Collection:

During the year under review the Agency had recovered only a sum of Rs.8,580 out of sum of Rs.61,475 that was outstanding as at December 31, 1981.

3:3 Appointment of Secretary:

The Secretary to the Board who was appointed on January 18, 1982 in terms of Section 11 of the Act had been granted 5 increments with effect from October 1, 1982 by the Governing Board.

3:4 Research Programme:

Although the Agency had commenced operations in September, 1981 the Research Programme had been formulated and approved by the Scientific and Technical Committee only in May 1982.



4. Systems and Controls:

(a) Deficiencies observed during the audit in relation to design and operation of systems and controls had been enumerated in my detailed report to the management. They deal with the following areas:

- (i) Delegation of Authority
- (ii) Internal Control
- (iii) Cash
- (iv) Fixed Assets
- (v) Security of Employees
- (vi) Budgeting
- (vii) Personnel
- (viii) Research Projects
- (ix) Motor vehicles

(b) Manual of Procedure:

The Agency had not framed procedures, rules and regulations for the conduct of its operations.

(c). Internal Audit:

Although an Internal Audit Officer was appointed with effect from May 1, 1982 an internal audit programme had not been submitted for my approval as required by Section 13(5) (d) of the Finance Act. Further, no internal audit reports had been furnished to audit though called for. It was observed that the Internal Audit Officer had performed the functions of Administrative Officer from the date of his appointment and an additional allowance of Rs.750 per mensem had been paid to him for this purpose.

Signed

(D.H.F. Hewagamage)  
Acting Auditor General.



BALANCE SHEET AS AT 31.12.1982

Contribution

For the year 1981	7,134,000.00
For the year 1982	<u>7,800,000.00</u>
Total Contribution	<u>14,934,000.00</u>

Contribution Employed

Balance B/F as at 01.01.1982	6,416,067.01
Balance for the year 1982	<u>3,928,148.95</u>
	<u>10,344,215.96</u>

Employment of Contribution

Fixed Assets (Capital Expenditure)

Buildings	2,149,948.16		
Machinery & Equipment	478,761.79		
Vehicles	653,863.09		
Furniture	171,537.05		
Library Books & Journals	79,235.80		
Special Project	350,000.00		
Travelling & Subsistence	162,691.62		
Fuel	109,648.65		
Foreign Travelling	145,012.90		
Glassware & Consumable	<u>134,23.74</u>	4,435,322.80	
Less Provision for Depreciation		<u>1,929.00</u>	4,433,393.80

Current Assets

Sundry Debtors (Schedule 01)	5,203,295.51		
Deposits (Schedule 02)	22,500.00		
Advance & Deposits (Schedule 03, 04, 05, 06, 07)	78,390.85		
Bank & Cash	945,912.88	<u>6,250,099.24</u>	

Less Current Liabilities

Creditors & Accrued Expenses (Schedule 08, 09)	331,556.33		
Deposits (Schedule 10)	<u>7,720.75</u>	<u>339,277.08</u>	<u>5,910,822.16</u>
			<u>10,344,215.96</u>

Signed

(Dr. Hiran W. Jayewardene)  
CHAIRMAN

19th September, 1983.

Signed

(Dr. S.K. Onil Perera)  
DIRECTOR GENERAL

19th September, 1983.



NATIONAL AQUATIC RESOURCES AGENCY, MATTAKKULIYA  
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INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDING 31ST DECEMBER 1982

Contribution for the year		7,800,000.00	
Sundry Income		<u>1,499.75</u>	
		7,801,499.75	
<u>Recurrent Expenditure</u>			
<u>Administration Expenses</u>			
Salaries	1,788,073.86		
Allowances	681,413.04		
Employees Provident Fund (E.T.F.)	211,153.44		
Overtime	64,410.24		
Pensionary Contribution	14,793.50		
Travelling	42,567.36		
Security Charges	87,537.24		
Fees	11,707.75		
Fuel	38,042.33		
Uniforms	4,650.00		
Consultancy Fees	26,596.77		
Advertising	73,987.39		
Stationary	124,408.98		
Postage	11,019.80		
Entertainment	30,384.50		
Welfare	9,397.33		
Telephone	42,892.58		
Sundries	<u>32,506.55</u>	3,295,542.66	
<u>Establishment Expenses</u>			
Maintenace	265,908.81		
Electricity	164,158.33		
Consumable & Glassware	134,459.00		
Rent & Rates	11,353.00		
Provision for depreciation	1,929.00		
Other Provision	-	<u>577,808.14</u>	<u>3,873,350.80</u>
Income Over Expenditure			<u>3,928,148.95</u>

Signed

(Dr. Hiran W. Jayewardene)  
 CHAIRMAN

19th September, 1983

Signed

(Dr. S.K. Onil Perera)  
 DIRECTOR GENERAL

19th September, 1983.



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