

**ESTIMATES COMMITTEE
(1967-68)**

FORTY-SECOND REPORT

(FOURTH LOK SABHA)

**MINISTRY OF FOOD, AGRICULTURE, COMMUNITY
DEVELOPMENT AND COOPERATION**

(DEPARTMENT OF AGRICULTURE)

Indo-Norwegian Project, Ernakulam



**LOK SABHA SECRETARIAT
NEW DELHI**

April, 1968/Chaitra, 1890 (Saka)

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C_O_R_R_I_G_E_N_D_A

TO

Forty-Second Report (Fourth Lok Sabha)
of Estimates Committee on the Ministry
of Food, Agriculture, Community Deve-
lopment and Cooperation (Department
of Agriculture) - Indo-Norwegian
Project, Ernakulam.

Page 3, para 1.9, line 19, for 'fdom'
read 'from'

Page 5, para 1.16, line 5, for
'Cooporation' read 'Cooperation'

Page 7, para 1.22, line 10, for
'effected' read 'affected'

Page 13, para 1.41, line 3, for
'been' read 'not'

Page 14, para 2.1, line 15, for
'Commorin' read 'Comorin'

Page 14, para 2.3, line 3, for
'groups of' read 'grounds off'

Page 14, para 2.3, line 7, for
'potentia' read 'potential'

Page 19, para 2.15, line 8, for
'these' read 'there'

.(p.t.o.)

Page 19, para 2.15, line 15, for
'have' read 'had'
Page 19, para 2.15, line 19, for
'water' read 'weather'
Page 21, para 2.21, line 3, for
'there' read 'these'
Page 22, para 2.24, line 3, for
'Government' read 'Governments'
Page 23, para 2.27, line 3, for
'Mondapam' read 'Mandapam'
Page 26, line 2, for 'Mondapam'
read 'Mandapam'
Page 29, last line, for 'of' read 'on'
Page 33, para 3.15, line 4, for
'our' read 'out'
Page 34, para 4.1, line 4, for
'freeze' read 'freezer'
Page 37, para 4.13, line 1, for
'objection' read 'objections'
Page 37, para 4.13, line 3, for
'confirmed' read 'confined'
Page 52, S.No.17, line 2, delete 'in'

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ESTIMATES COMMITTEE
(1967-68)

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Shri K. D. Chatterjee—*Under Secretary.*

INTRODUCTION

1, the Chairman, Estimates Committee, having been authorised by the Committee to submit the Report on their behalf, present this Forty-Second Report on the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture) —Indo-Norwegian Project, Ernakulam.

2. The Committee took evidence of the representatives of the Ministry of Food, Agriculture, Community Development and Co-operation (Department of Agriculture) and the Indo-Norwegian Project, Ernakulam on the 25th November, 1967. The Committee wish to express their thanks to the Secretary, Joint Secretary, Joint Commissioner (Fisheries) and other Officers of the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture) and Director, Indo-Norwegian Project, Ernakulam for placing before them the material and information they wanted in connection with the examination of the estimates.

3. They also wish to express their thanks to Shri Kurwath Damodaran, Vice-Chairman of the Marine Products Export Promotion Council, Ernakulam; Shri R. Madhavan Nayar, Ex-President, Seafood Canners' and Freezers' Association of India, Cochin, and Dr. N. K. Panikkar, Director, National Institute of Oceanography, Council of Scientific and Industrial Research, New Delhi for giving evidence and making valuable suggestions to the Committee.

4. The Committee also wish to thank Shri T. Muthu-Kannappan, Member, Central Board of Fisheries; Dr. S. B. Setna, Managing Director, New India Fisheries Ltd., Bombay and Kerala Fisheries Corporation Ltd., Ernakulam for furnishing Memoranda to the Committee.

5. The Report was considered and adopted by the Committee on the 29th March, 1968.

6. A statement showing the analysis of recommendations contained in the Report is also appended to the Report (Appendix III).

NEW DELHI;

April 4, 1968.

Chaitra 15, 1890 (Saka).

P. VENKATASUBBAIAH,

Chairman,
Estimates Committee,

CHAPTER I

INTRODUCTORY

A. Genesis and Objectives

1.1. In a tripartite Agreement signed between the Government of India, Government of Norway and the United Nations on the 17th October, 1952, it was agreed that the Government of Norway would assist the Government of India in carrying out a programme of fisheries development projects. Under the First Supplementary Agreement between the United Nations, the Government of India and the Government of Norway signed in New Delhi on 24th January, 1953, the Indo-Norwegian Project was first started in India at Neendakara near Quilon in Kerala State in 1953.

1.2. The objectives of the Indo-Norwegian Project, as laid down in the First Supplement to the Main Agreement, have been stated to be as follows:

- (a) an increase in the return of fishermen's activity,
- (b) an efficient distribution of fresh fish and improvement of fish products,
- (c) an improvement of the health and sanitary conditions of the fishing population, and
- (d) in general, a higher standard of living for the community in the project area.

To achieve the above purposes it was proposed to start intensive work in the State of Travancore-Cochin in a limited area to expand it gradually. To begin with, two fishing communities on both sides of the Neendakara bridge were selected. The Project activities at Neendakara were handed over to Kerala Government from April, 1953.

1.3. The Second Supplementary Agreement signed on 21st April, 1956, called for the expansion of the purposes of the Project mentioned in the First Supplementary Agreement; to provide certain facilities for the District Hospital, Quilon; to make a start with the development of a new fishing centre in Cochin, and to improve the water supply to areas adjoining the Project. It was also decided to establish a new fishing centre at Cochin with a view to train fishermen in the handling and operation of mechanised fishing

trawlers and to study the economic feasibility of shrimp and fish trawling.

1.4. The objectives of the Third Supplementary Agreement, signed on the 27th November, 1961 were to modify and expand the projects mentioned in the First and Second Supplementary Agreements and to extend the joint Indo-Norwegian enterprise with a view to including also States other than Kerala in the scheme for the development of Indian Fisheries in Madras and Mysore. It was also decided that the control of the Project should be transferred to the Government of India. The headquarters of the Project was to be moved from Neendakara (Quilon) to Cochin.

In order to achieve the above objectives, the Project undertook several schemes as approved by the Standing Committee of the Project.

1.5. The Fourth Agreement was signed in March, 1967. It envisages the following programme of activities for the Indo-Norwegian Project:—

- (a) Completion of the schemes initiated under the Third Supplementary Agreement.
- (b) Offshore and Deep Sea exploratory fishing.
- (c) Practical training and demonstration of modern technology ashore and at sea.
- (d) Procurement of equipment for vessels and shore installations.

1.6. The Agreement is effective from the 1st of April 1967 and will remain so until the 31st March, 1972.

1.7. It has been stated that the development of fisheries in India on modern lines, with Norway providing material, equipment and expert knowledge and India providing local goods and administrative set up is the salient feature of all the agreements. In the first agreement an area around Neendakara was selected for intensive development with considerable leaning towards community development activities among the local fishermen. The aid provided by Norway was N.Kr. 1,00,00,000. In the second supplemental agreement, the accent was on provision of mechanised boats, training, construction of ice-plant and increase in the health and sanitation facilities provided in the first agreement. The Norwegian aid provided under the second supplemental agreement was N.Kr. 1,50,00,000. Under the third agreement the activities were expanded

to the adjacent States. Experimental and exploratory fishing was intensified with the acquisition of a new research vessel. A fishing harbour and slipway were to be constructed at Cannanore and Cochin respectively. An ice-cum-freezing plant for preservation of fish was also to be constructed. Similar activities were taken up and boat-building yards were to be constructed at Karwar, Cannanore and Mandapam. The Norwegian aid agreed to under the third supplemental agreement was N.Kr. 2,50,00,000. The latest, i.e. the new agreement signed in 1967 envisages an aid of N.Kr. 4,00,00,000, part of which is free gift and part credit.

1.8. The Committee have further been informed that the most important achievement of the Project is the catalytic effect it has had on the development of the marine fisheries along the south-west coast of India.

1.9. The Committee have been informed during evidence that, "The specific objective (of the Indo-Norwegian Project) was to improve the standard of living of the fishermen in the areas in which the project was undertaken. This was proposed to be done in several ways. One was by introducing mechanisation. The second was by improving indigenous methods of fishing. The third was by improving the arrangements for preservation and distribution. Then in the earlier stages of the project, there was a scheme directed towards improving the health standards of the fishermen." Asked whether any amount has been set apart exclusively for the social betterment of the fishermen, the representative of the Ministry has stated during evidence that, "In the main and supplementary agreements—the first few agreements which took the Project upto 1963—there was a specific provision for health measures. In subsequent agreements, there has not been any specific provision for health." It has also been stated during evidence that no specific amounts have been set apart for improvement of the housing conditions, drinking water, education, transport for the fishermen, etc. Asked whether there have been any plans from Government side, the representative of the Ministry has stated that, "There were some plans, not at all to the extent to which we would like to provide such facilities. But there were some schemes in the State Plans. Apart from that, we have not thought of using this Project for the specific purpose of economic betterment of the fishermen."

1.10. It has further been stated in a written note that "During 1963, when the Project's administration was taken over by the Government of India, all the health activities including the water supply schemes were formed into an 'Indo-Norwegian Health Project' under

a new Agreement between the Governments of India and Norway. This project is being administered by the Government of Kerala."

1.11. The Committee note the objectives laid down in the various Agreements signed by the United Nations, Government of India and Government of Norway for the development of India's fisheries.

1.12. The Committee appreciate the pioneering work and efforts made by the Indo-Norwegian Project in India by providing material, equipment and expert knowledge for intensive development of fisheries, facilities for training and experimental and exploratory fishing etc. The Committee agree that the most important achievement of the Project is the catalytic effect it has had on the development of the marine fisheries along the South-West coast of India.

1.13. Since two of the objectives of the Project were (i) an improvement in the health and sanitary conditions of the fishermen and (ii) in general, a higher standard of living for the community in the project area, the Committee consider, it would have been desirable to set apart specific sums for improvement of housing conditions, drinking water, education, transport etc. of the fishermen of the area so as to bring about an improvement in their social and economic condition.

1.14. The Committee also suggest that a detailed study may be undertaken by the Ministry with a view to see to what extent the objectives laid down in various Agreements have been achieved and the impact of the working of the Indo-Norwegian Project on the development of India's fisheries.

B. Organisational Set-up

Standing Committee

1.15. It has been stated that a Standing Committee consisting of representatives of the Norwegian Agency for International Development, Ministry of Food and Agriculture, Project Management, and the Governments of three participating States (Kerala, Mysore and Madras) takes major decisions regarding the implementation of the Project schemes to achieve the broad objectives laid down in the Agreement between the Governments of India and Norway. An Executive Board has been constituted with Joint Secretary, Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture), Project Director and the Director as members whose responsibility is to devise ways and means for the

speedy implementation of the decisions taken by the Standing Committee and other matters relating to the implementation of project schemes.

1.16. The composition of the Standing Committee has been stated to be as follows:—

CHAIRMAN :	Joint Secretary to the Government of India, Ministry of Food, Agriculture, Community Development and Cooperation, Department of Agriculture, New Delhi (At present Shri Godwin Rose, Joint Secretary).
MEMBER	One representative of the Ministry of Finance of the Government of India, Financial Adviser, Ministry of Food, Agriculture, Community Development and Cooperation.
MEMBER :	Joint Commissioner, Ministry of Food, Agriculture, Community Development and Cooperation, New Delhi.
MEMBER	One representative of the Madras State Government.
MEMBER	One representative of the Mysore State Government.
MEMBER	One representative of the Kerala State Government.
MEMBER	Director, Indo-Norwegian Project.
MEMBER	Norwegian Project Director.
MEMBER	One representative of the Norwegian Embassy in India.
MEMBER	Two representatives of Norwegian Agency for International Development.
OBSERVER	One representative of the United Nations.

1.17. This Committee has been set up without specifying any period and it has to be continued so long as the project is in existence.

1.18. The functions of the Standing Committee have been stated to be as follows:—

(a) advise on policy matters;

(b) recommend annual plans of operation with annual budgets;

(c) approve annual reports; and

(d) submit its recommendations to Ministry and to NORAD.

1.19. It has further been stated in a written note submitted to the Committee that the Standing Committee held six meetings during the last three years and made 95 recommendations of which 92 were accepted by the Government of India. Of these 92 recommendations, 86 have either been implemented or are in the process of implementation. The position about the remaining 6 recommendations is as follows:—

- (1) The training programme approved by the Committee at its 23rd Meeting could not be implemented as there was not sufficient time. This programme is to be implemented under the new Agreement.
- (2) Standing Committee decided to acquire additional piece of land at its 23rd Meeting for its expanding activities. The same is already allotted to Income Tax Department who refused to exchange it with some other alternate land.
- (3) The decision of the Standing Committee regarding supply of Hydrolysed protein plant to Mandapam has not yet been implemented.
- (4) The implementation of decision regarding disposal of certain small boats taken by the Standing Committee at its 24th meeting has been postponed.
- (5) The decision of the Committee to take over the Slipway at Mandapam owned by Railways and now transferred to Shipping Corporation of India has not yet been implemented. The matter is under correspondence with Government of Madras etc.
- (6) The proposal for giving incentive to the crew of the fishing vessel recommended by Standing Committee at its 25th meeting is under examination.

Administration of the Project

1.20. It has been stated that the Project is administered by the Ministry of Food, Agriculture, Community Development and Co-operation (Department of Agriculture). The Director, Indo-Norwegian Project (Indian) is responsible for the administration of the Project in consultation with the Project Director (Norwegian) who heads a team of Norwegian experts at present numbering 36 in different fields such as fisheries, engineering, boat building, etc. The Project Director and the Norwegian experts are responsible for all technical aspects regarding the implementation of the Project schemes.

1.21. Elucidating further, it has been stated that:

The Indian Director is responsible for—

- (i) administrative matters pertaining to the Project;
- (ii) the utilisation of Indian funds within the approved annual budgets; and
- (iii) the supervision and administration of Indian personnel in non-technical matters.

The Norwegian Director is responsible for—

- (i) the technical direction and supervision of instructional, operational and advisory functions;
- (ii) the utilisation of Norwegian funds within the approved annual budgets; and
- (iii) the supervision and administration of Norwegian personnel in non-technical matters.

1.22. So far as administration of the Project is concerned, a leading Fisheries Organisation in a Memorandum submitted to the Committee has stated as follows:—

“Another defect in the administration was the frequent change in the Norwegian leadership of the Project. During the past 14 years of the Project's life there had been 10 Norwegian Directors in charge of it. This had brought about a discontinuity in operation and ideologies as each Director tried to put into effect his ideas or activities in which he was an expert. This has considerably effected the progress and efficiency of the Project and this was a point which had been brought to the notice of the authorities both in Norwegian Newspapers as well as by Indian agencies. Only 2 Norwegian Directors had ever remained in this country for a 2 year period. If the work in the Project is to be efficient and of a continuous nature the Norwegian Director should remain in charge of the Project at least for a minimum continuous period of three years.....Added to this, too frequent a change in the personnel as in the case of the Norwegian Director had brought about a discontinuity in the programme of work.”

1.23. It has been stated that 3 main considerations which should guide the appointment of technical experts in the Project for a better and efficient working should be:—

- (i) As far as possible only higher level Technical Experts should be appointed in the Project from Norway.

(ii) Technical experts on subjects for which Indian Experts are available in plenty should not be accepted from Norway.

(iii) The experts coming to the country should stay here for a minimum period of 3 years if they are to do any effective work.

1.24. Another leading expert on Fisheries in his Memorandum submitted to the Committee has stated as follows:—

“The Indo-Norwegian Project has made good progress but the returns have not been commensurate with the investment. One of the reasons is that differences of opinion between the Centre and States in matters pertaining to the project have often resulted in vacillation and the absence of a forthright policy. The project is looked upon as an aid giver from which each State is keen to extract the maximum. This has resulted in an unhealthy tendency to spread too thinly. The Standing Committee for the project was well conceived but in effect it has again become an Advisory Body of the Ministry rather than an Executive Committee for which it was intended. The time has come when the Standing Committee should have an independent Chairman and not a Ministry official.”

1.25. When the points referred to above were raised during evidence, the representative of the Ministry has stated, “As far as we are aware, there has not been any major difference of opinion between States and the Centre.” As regards the appointment of an independent Chairman of the Standing Committee, the representative of the Ministry has stated : “Even if you interpose a Chairman or somebody, he has to come to the Standing Committee. It only adds one level to the whole thing. It does not help because details are to be decided from time to time on the basis of how things progress and Standing Committee is really the effective body.”

1.26. So far as frequent changes in the Norwegian personnel is concerned, it has been stated in a written note submitted by the Ministry to the Committee that 11 persons have worked as Directors on the Norwegian side. The details of the tenure of their appointment as also of other categories of Norwegian staff appointed so far may be seen at Appendix I. In this connection, the Committee have been informed during evidence that, “We realise that it is necessary to have continuity. In our discussions with the Norwegians, we have been suggesting that the experts should stay on for a longer period rather than for a short period. We have been able to persuade them

in some cases to keep them for a longer period." It has also been stated that the final authority for appointment of Indian personnel is the Ministry of Food and Agriculture. Regarding the Norwegian Personnel, though the appointing authority is the Norwegian Agency for International Development, the selection of every Norwegian personnel has to be approved by the Ministry.

1.27. So far as powers of the Norwegian Director are concerned, the Committee have been informed during evidence that they are very specifically prescribed. The Norwegian Director exercises only technical control on the work. The representative of the Ministry has further stated during evidence that, "We have had cases where the Indian Director and the Norwegian Director have not seen eye to eye on several matters. But, by and large, we have seen that the Indian Director and the Norwegian Director have been able to work in close cooperation."

1.28. So far as the association of Indian technical personnel with Norwegian experts is concerned, it has been stated in a written note submitted to the Committee that posts have been sanctioned as counterparts for the following Norwegian experts:—

Norwegian Experts	Indian counterparts
Fisheries Leader	Assistant Director
Fleet Manager	Fishery Officer.
Processing Technologist	Processing Technologist
Chief Engineer (Slipway & Workshop)	Mechanical Marine Engineer.
Skippers	Skippers
Engineers on board Vessels	Engineers
Mechanical Engineer	Mechanic
Gear Technician	Gear Technician
Sand Pump-cum-Crane Operator	Operator.
Refrigeration Engineer	Refrigeration Engineer.

It is programmed that the operation of the fishing vessels will be taken over by Indian counterparts by 1968. The technical posts in the freezing plant also will be taken over by Indian counterparts by 1968. The technical posts of Slipway and Workshop will be taken over by Indian counterparts and worked by them from end of 1969 onwards.

1.29. The Committee note the organisational set-up of the Indo-Norwegian Project. They further note that during the last 15 years of the life of the Project, there have been as many as 11 Directors from the Norwegian side and that there have been frequent changes in other Norwegian technical personnel. The Committee need hardly point out that frequent changes in the technical personnel, and especially of the Director, have a deleterious effect on the smooth and efficient functioning of an institution. The Committee trust that suitable measures will be taken to remedy the situation.

1.30. The Committee further feel that there is need for the Norwegian Director and the Indian Director to work in close cooperation so as to ensure smooth administration of the Project. Close liaison and coordination between the Centre and the concerned States has also to be maintained for the purpose.

1.31. The Committee suggest that the Indian technical personnel should be progressively associated with their Norwegian counterparts so as to enable them to take over the administration and operation of the Project after the termination of the present arrangements.

C. Finance

1.32. The budget allocation and expenditure in respect of the Indo-Norwegian Project during each of the last three years have been as follows:—

	Allocation			Expenditure		
	Revenue	Capital	Total	Revenue	Capital	Total
1964-65	39,18,000	16,00,000	55,18,000	28,94,514	6,80,133	35,74,647
1965-66	41,81,400	20,00,000	61,81,000	28,46,276	9,24,271	37,70,547
1966-67	56,07,500	14,90,000	70,97,500	74,09,864	12,99,490	87,09,354

1.33. The expenditure indicated above includes cost of materials and equipment received from Norway and incidental charges incurred thereon, the value of which is accounted under Revenue Head as per accounting procedure laid down by the Ministry of Finance.

1.34. It has been stated that the reasons for shortfall in expenditure in 1964-65 were due to receipt of less materials and equipment

from Norway, slow progress in construction works and procedural delays in sanctioning works estimates. The shortfall in expenditure in 1965-66 was due to revised accounting procedure introduced by Ministry of Finance regarding accounting of incidental charges incurred on imported materials, delay in finalising contracts and commencement of works, and delay in construction of the slipway due to necessary changes in design by Norwegian experts.

1.35. So far as expenditure incurred by Norway is concerned, it has been stated that as per provision of the Third Supplementary Agreement, Norwegian Agency agreed to contribute a sum of Rs. 232.4 lakhs for the 5 years. The details of this amount are given below:—

	(Rs. in Lakhs)
(1) For completion of items started during previous Agreement	66.4
(2) Contribution @ 33.2 lakhs during 5 years	166.0
	<u>232.4</u>

As against this the Norwegian Agency incurred an expenditure of Rs. 2,79,76,673 as indicated below during 5 years from 1-4-62 to 31-3-67:

	Rs.
1962-63	38,14,760
1963-64	33,57,700
1964-65	35,02,400
1965-66	66,55,500
1966-67	<u>106,46,313</u>
TOTAL	<u>2,79,76,673</u>

1.36. The Committee desired to know the total expenditure incurred so far on the Indo-Norwegian Project since its inception. In reply, the Ministry have submitted the following figures:—

(Rs. in lakhs)

Year	Norwegian	Indian	Total
Progressive expenditure upto			
March 1958	159.93	13.82	173.75
1958-59	30.62	4.51	35.13
1959-60	28.74	6.00	34.74
1960-61	33.30	6.59	39.89
1961-62	45.83	12.16	57.99
1962-63	38.15	16.41	54.56
1963-64	33.58	16.70	50.28
1964-65	35.02	35.75	70.77
1965-66	66.56	37.71	104.27
1966-67	106.46	87.00	193.46
	578.19	236.55	814.84

1.37. It has been stated that upto and inclusive of the year 1962-63, the Indian expenditure has been shared by the Kerala and Central Governments on a 50:50 basis. From 1963-64 onwards, the entire expenditure is borne by the Central Government.

1.38. Asked what percentage of this expenditure has been incurred on the salaries and allowances of Norwegians, salaries and allowances of Indians, craft and gear, etc., Government have furnished the following figures:—

Year	Salaries and allowances of Norwegians	Salaries and allowances of Indians	Craft and Gear
	Per cent	Per cent	Per cent
1958-59	36		10
1959-60	47		11
1960-61	33		3
1961-62	29		38
1962-63	30		29
1963-64	25	7	27
1964-65	29	8	30
1965-66	23	4	26
1966-67	23	3	26

1.39. The Committee do not feel convinced by the reasons advanced by the Government for the heavy shortfalls in the expenditure incurred by the Indo-Norwegian Project in 1964-65 and 1965-66. They would stress that the programmes of the Project, for which budget provisions have been made, should be executed with a sense of urgency, unless there are circumstances which are beyond the control of the Project Authorities.

1.40. The Committee also note that about a third of the expenditure from Norwegian side has been incurred on the salaries and allowances of the Norwegians since the inception of the Indo-Norwegian Project. In the opinion of the Committee, more expenditure should have been incurred on items such as, craft and gear, equipment and other machinery and other development schemes. The Committee suggest that necessary corrective steps may be taken in this behalf.

D. Evaluation

1.41. It has been stated in a Memorandum submitted to the Committee that, "Though the Project has been in existence for the past 14 years, the Ministry of Food and Agriculture has been made any attempt so far to assess and evaluate the Project to study its progress, impact and utility, even though blindly the Agreements had been signed based on apparent attractions offered by the Norwegian Foundation."

1.42. In a written reply submitted to the Committee by Government, it has, however, been stated that, "An evaluation of the work done by the Project in the 1st and 2nd Agreement periods has been carried out. A further evaluation has become necessary."

1.43. The Committee feel that there is a need for a regular evaluation of the work of the Indo-Norwegian Project to ensure that the results are commensurate with the expenditure involved.

CHAPTER II

RESEARCH

A. Research Programmes

Exploratory fishing

2.1. It has been stated that due to the non-availability of sufficient number of large fishing vessels, vast areas of the continental shelf, particularly beyond 25 fathom depths remained unexplored. Information about the type of fish available and a fairly good knowledge about the requirements of fishing vessels, and fishing gear for exploiting these areas are very essential for undertaking commercial fishing. The Project acquired three well equipped modern trawlers from Norway and these vessels arrived in India in September, 1966 to strengthen the already existing fleet of exploratory fishing and research vessels. Of the three new vessels, one specialises in modern techniques of shrimp trawling and the other two in deep and distant water trawling. Valuable data have been collected on the fisheries of Wadge Bank south-west of Cape Comorin, and Laccadive Waters, and also of the deep waters between 25—60 fathom depths extending from Karwar to Cape Commorin.

2.2. It has further been stated that the Project also introduced trawling from Mandapam in Madras State and Karwar in Mysore State.

2.3. The significant achievements of the Project in regard to the exploratory fishing have been stated to be as follows:—

- (a) The location of the large fishing groups of Kalava in the 45-50 fathoms range.
- (b) The location of the synagris fishing grounds off Alleppey—Cochin in the 25-40 fathoms range.
- (c) The location of the fairly potentia grounds of deep water prawns and lobsters in the 150-200 fathoms range off Quilon—Alleppey region.
- (d) The shrimp beds off Quilon—Kayankulam region and the Cannanore—Pazhayangadi region.
- (e) The development of purse-seine fishing from small boats of 32'—36' for Sardines and Mackerels in inshore region.

(f) The development of purse-seine fishing for Cat fish in the Gulf of Mannar.

(g) The location of Prawn beds off Mandapam in the Gulf of Mannar.

Oceanographic and fishing research

2.4. It has been stated that the work initiated by the schooners in 1955 were continued by the vessel KALVA from 1957 onwards. The work of these vessels showed the scope and magnitude of the study needed in this field and the need for a well equipped research vessel for undertaking oceanographic survey in India. The Project acquired a very modern and well equipped oceanographic research vessel (VARUNA) from Norway in 1961. This vessel was placed at the disposal of the scientists of the Central Marine Fisheries Research Institute. She has undertaken 119 cruises of 7-12 days duration since then and covered a vast area of the ocean between Karwar and Cape Comorin including the Laccadive archipelago (region) collecting valuable hydrographic, biological and meteorological data. The vessels have covered more than half a million nautical miles in distance along the west coast upto 240 nautical miles off the coast so far. Major contributions include the investigation of the upwelling pattern upon which, it is believed, depends the success of many pelagic and demersal fisheries and a preliminary production along the west coast of the country.

Purse—seining Survey

2.5. It has been further stated that the Project initiated the development of techniques for a purse-seining survey of the distant water tuna fishery which is being now exploited on commercial basis by the Japanese and USSR fishing vessels stationed in Indian Ocean area. Asked about the present position in the matter, the representative of the Ministry has stated during evidence that the results have not led to any success. Certain defects were found. The work will be repeated this season. Asked whether advantage of the surveys already conducted by Japan and USSR could not be taken in the matter, the representative of the Ministry has stated, "They do not give the results."

Liaison

2.6. The Committee have been informed in a written note that the exploratory surveys by the fishing vessels of the Project are undertaken by the Project in accordance with the decisions and programmes laid down by a special committee. This committee has taken into account the programmes for such surveys by other Governmen*

institutions also. This avoids duplication and overlapping. The representative of the Ministry has added during evidence that to avoid duplication and overlapping between the Project and the Deep Sea Fishing Organisation, the results of experimental fishing under the Project are treated together with the results achieved by the Deep Sea Fishing Organisation. Links have also been established with the Central Marine Fisheries Research Institute.

2.7. The Committee note some of the research activities undertaken by the Indo-Norwegian Project. They would stress the desirability of fostering close liaison and coordination between the Project, Central Marine Fisheries Research Institute and Deep Sea Fishing Organisation as well as other Central and State Research Institutes to avoid any inadvertent duplication and overlapping. The Committee would also stress that the Project should strive to establish close links with the fishery industry so that the industry could exploit the results achieved by the Project.

2.8. The Committee hope that 'purse-seining' survey of the tuna fishery will be undertaken at the earliest possible opportunity so that India could also exploit this important species of fish which is now being exploited by Japan and U.S.S.R. in the Indian Ocean.

B. Vessels

2.9. The Committee desired to know the details of the vessels received by the Indo-Norwegian Project so far under various Agreements. In reply, in a written note submitted to the Committee, it has been stated that during the period 1952 to 1961 under the First and Second Supplementary Agreements, the Indo-Norwegian Project received 23 small and medium fishing vessels of different sizes and construction from Norway. Of these 12 vessels were open decked surf boats of 22 ft. length with 4.5 HP engine. 8 vessels were of 30 ft. to 35 ft. length having HP ranging from 22—36. These vessels were brought mainly to serve as proto-type to study their suitability under Indian conditions. In 1954, three schooners viz. M. O. KRISTENSEN, TRAVANCORE and KALAVA of overall length—ranging between 58 ft. and 75 ft. and HP from 100 and 120 were received from Norway. The total cost of these vessels excluding the 12 nos. of surf boats was Rs. 12,13,232.00. Out of these 23 vessels, the Project is at present having only 5 boats viz. KALAVA and 4 medium boats. The rest of the vessels were either issued to fishermen or transferred to the Government of Kerala prior to 1st April, 1963. Of the three schooners two were condemned in 1959 and the remaining one (Kalava) is under de-commission. The vessel ASHTAMUDI has been decommissioned since 1965 and is under process of disposal.

2.10. Since November, 1961 the Indo-Norwegian Project received three medium fishing vessels and one research vessel under the Second and Third Supplementary Agreements. The research vessel

VARUNA has a registered length of 85.25 ft. and a 400 HP main engine. Two of the new arrivals are of 71.50 ft. registered length having an HP of 480. The fourth vessel is 60.60 ft. in registered length with an HP of 240. These are modern well-equipped steel vessels capable of undertaking fishing voyages of 7 days to 10 days duration. The total cost of these four vessels comes to Rs. 57,54,029. All the 4 vessels are in very good condition and are being actively engaged in exploratory fishing and oceanographic research work. Of these, one vessel arrived in India in September, 1961 and the other three in November, 1966.

2.11. The 9 vessels which are available with the Project at present out of the total of 23 imported vessels costs Rs. 63,13,719.00. The up-to-date vessel-wise details on the cost of repairs of these vessels are not available as the expenditure was being met from Norwegian funds. However the total cost of repairs for 1958-59 to 1965-66 incurred on the Project vessels is furnished yearwise below:—

Years	Cost of repairs
	Rs.
1958-59	48,300
1959-60	73,200
1960-61	69,700
1961-62	1,43,700
1962-63	1,24,700
1963-64	2,26,600
1964-65	4,85,600
1965-66 (upto 31-12-65)	4,08,500

2.12. Cost of repairs on Project vessels including the 3 Vessels obtained locally for the period 1966-67 and 1967-68 (upto 5-9-67) is as follows:—

Name of boat	Cost of repairs in 1966-67	Cost of repairs in 1967-68
1 Varuna	9,944.40	25,444.00
2 Kalava	2,043.00	307.00
3 INP-167	6,705.00	Nil
4 Norind	Nil	1,050.00
5 M-1	920.00	95.00
6 M-2	500.00	103.00
7 M-3	Nil	75.00
8 M-4	2,660.00	103.00
9 Karwar No. 1	1,372.00	11.00
10 Klaus Surrana	Nil	6,036.00
11 Hessatral	Nil	3,493.00
12 Hessagut	Nil	2,509.00
TOTAL	24,194.00	39,226.90

2.18. The name, date of purchase, present condition, vessel-wise cost, etc. is given in the following statement:

Type or Name & date of arrival	O.A.L. or R.L.	B.H.P.	Cost in Rs.	Remarks.
1. 12 Nos. surf boat 1954	22'	4.5	..	Issued to Fishermen in 1956 at a subsidised cost of Rs. 1041 for each boat.
2. Aluminium Dorry October, 1954	30'	8	8764	Transferred to National Institute of Oceanography in 1966.
3. Wooden dorry March, 1954	30'	22	10570	Transferred to Govt. of Kerala with effect from 1-4-63.
4. Steel Dorry Feb. 1964	32'	22	9343	Do.
5. Schooners				
a. M. O. Kristensen Oct., 1954	75'	120/150	322766	Condemned in 1959
b. Travancore Oct. 1954	58'	100	230766	Do.
c. Kalava Oct., 1954	68'	120	277098	Proposed to be condemned laid up since May '67 requiring major repairs or replacement of engine.
6. Aahamudi Feb. 1958	33'	36	71333	Scrapped in 1965. Pending disposal.
7. M1 1956	35'	20(48)	68773	The original engines replaced by 48 HP engine later.
8. M2 1956	35'	20(48)	68773	Do.
9. M3 1956	35'	20(48)	72523	Do.
10. M4 1956	35'	20(48)	72523	Do.
11. Varuna Nov. 1961	85.25'	400	1222229	The vessel is in good condition.
12. Klaus Sunnana Sept. 1966	60'	240	1311100	Do.
13. Hessatral Sept. 1966	71.50'	480	1636600	Do.
14. Hessagutt Sept. 1966	71.50'	480	1584100	Do.

2.14. The Committee have been informed during evidence that, "All these vessels which come from Norway are fully surveyed according to the requirements of the Norwegian Laws before they are sent. We found that there was a case when three wooden vessels which were received in the earliest stages of the Project had developed dry rot and that there was no method of arresting the decay. These three wooden vessels were in the dry rot stage and hence they had to be condemned. The other vessels that came in that batch have been continued upto now and nothing has happened to them. After that, wooden vessels were stopped. We felt that it would not be safe to have wooden vessels built out of Norwegian pine wood. They were not safe to work under the climatic conditions obtaining here. After that, only steel vessels were imported. Then, we have one or two cases of vessels on which a fairly heavy repair charges had to be incurred. These vessels were repaired about five years back. Since then, they have been working satisfactorily. The repair charges too have not been very heavy since then."

2.15. In reply to a question, the representative of the Ministry has further stated that, "Some of the boats which have been sent to us are the best. Some of the boats which they have sent to us have been used for two or three years before they were sent to us." Asked whether any representative from the Government of India was sent to check up these vessels, before they were sent to India, the Committee have been informed during evidence that, "The vessels which are sent from these are surveyed according to their regulations. If we want to send our representatives from here, it would have to be done through our Mercantile Marine Department. They would not be authorised to survey the vessels officially on behalf of the Indian Government. To send someone for an official survey in other countries is not normally done except when we are purchasing them. These were gifts which the Norwegians have been giving us and whose numbers were much more than what they have promised." The Committee have been further informed during evidence that, "The broad fact is that they came here as experts to advise us on certain things. They brought what they found to be suitable to our conditions. But, their experience of tropical water may not be so good. Moreover when we started this Project, our experience of fishing in the country was very limited. They came to help us in the matter of technical know-how, methods of fishing and so on. We had to depend to a large extent on their appreciation of the position."

2.16. So far as the performance of these vessels is concerned, the table below will indicate the number of days operated by all the

the Project vessels irrespective of the place of their operation during 1963-64 to 1966-67:—

Particulars	1963-64	1964-65	1965-66	1966-67
Total days operated by all vessels	787	745	848	915
No. of vessels operated	9	9	8	8
Average days operated per vessel per year	87	83	106	114

2.17. The table clearly shows that while there is a decline in the number of days operated by the Project vessels in 1964-65 as compared to the previous year, there is an increase in the number of days operated from 1965-66. Nevertheless the number of days operated by the vessels during the different years does not appear to compare favourably with the normal standards of a fishing vessel. This is primarily because 5 of the 9 vessels are very old (acquired in 1954) and the consequent frequent repairs they require.

2.18. In 1963-64 the Project had nine vessels. These nine vessels of the Project were stationed at 4 different centres from 1963-64 and the number of these vessels attached to any one of the centres varied from year to year. One and the same vessel has worked at two or more centres during the same year.

2.19. During 1964-65 one of the medium boats was handed over to the Government of Kerala. But the transfer was made good by the acquisition of new medium boat. In 1965-66 one of the vessels viz. Ashtamudi was scrapped, reducing the fleet of vessels to eight. During 1966-67 however, the Project received three new modern medium trawlers from Norway making a total of 11 vessels for the Project. Of the 11 vessels, the oldest vessel viz. Kalava (built in 1916) is being decommissioned.

2.20. It has further been stated that there appears to be fluctuation and a trend towards decline in the average catch per boat per day obtained by the Project vessels during the different years from 1963-64 to 1966-67. Besides the decreasing operational efficiency of the vessels due to age, several other factors appear to contribute towards this trend. In exploratory fishing, unlike commercial fishing

operations, the vessels are not expected to carry out fishing in the best known grounds only. The purpose is clearly to assess the resources available at different areas, i.e. the areas where commercial fishing vessels do not operate. Hence no matter fish is available or not the vessels carry out operations in the stipulated area as per the programme. Therefore a regular average catch cannot be expected from these vessels at different centres or for different vessels from year to year, as the area of operation varies. These vessels also carry out experimental fishing with different types of gear to study their suitability and efficiency. On account of this, the vessels do not operate the same or the best type of gear during different years and hence the catch of these vessels may not be comparable to other commercial fishing vessels. It has been pointed out that a clear distinction has to be made between the commercial fishing operations and the exploratory and experimental fishing of the Project. In commercial fishing operations, the crew members are paid according to the catch. Lack of proper incentive appears to affect the performance of the vessels. Similarly the Project vessels also function as training vessels and as such the vessels are generally manned by inexperienced trainees.

2.21. It has been further stated that a careful study of the working of the Project's vessels particularly the smaller vessels will show that these vessels are not adequately and properly manned. For instance a medium boat of the Project is having four fishing hands only, and there is neither a certified or uncertified bosun and the four fishing hands are equally paid (Rs. 100—130 plus M.A. 60) with the result that nobody from among these four fishing hands can be made responsible for the successful operation. This appears to have affected the fishing operations considerably. It is therefore proposed to provide these vessels with an uncertified bosun's post to begin with, who will be entirely responsible for the successful operations. This, in addition to making somebody responsible for the successful operation of the vessel, will also provide some incentive to the fishing hands who have had not any chance of obtaining any promotion for the past 10-15 years. It is also proposed, as these medium vessels have explored areas which are within their limits, to commercialise the operation of these vessels by giving proper incentive to the crew. Already a proposal is under consideration of the Ministry, according to which the crew should be paid a certain percentage of the catch they bring in addition to the pay and allowances.

2.22. The Committee note the present position of vessels received so far by the Indo-Norwegian Project under various Agreements. They are, however, unhappy to observe that performance of some of these vessels has not been very satisfactory and the repairs costs

on them have been quite heavy. In the opinion of the Committee, it should have been possible for the Government to make some sort of arrangement with the Norwegian authorities to check up the suitability or otherwise of these vessels in the Indian climatic conditions. This would have resulted in the saving of three wooden vessels which had to be decommissioned as soon as they arrived here owing to dry rot. In the opinion of the Committee, while importing equipment for fisheries development, better knowledge of local climatic and other conditions of the Indian authorities should be utilised to avoid such cases.

2.23. The Committee are unhappy to note that some of the Project's vessels have not been adequately and properly manned, with the result that the fishing operations have been adversely affected. The Committee would stress the need for accelerating the training programmes in the Indo-Norwegian Project as well as in the Central Institute of Fisheries Operatives so that there may not be any dearth of certified bosuns for the Project's fishing vessels. The Committee, however, note with satisfaction that it is proposed to improve the manning and operation of the Project's vessels and to commercialise the operation of the vessels by giving proper incentives to the crew. The Committee also stress the desirability of keeping the repairs costs to the barest minimum. They also hope that shortcomings noted in the performance of these vessels will be removed as early as possible. So far as the pay-scales and incentives to the floating staff is concerned, the Committee would like to draw attention of the Government to the recommendation contained in para 3.7 of their Fortieth Report on the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture) —(i) Deep Sea Fishing Organisation, Bombay; and (ii) Landing and Berthing Facilities.

C. Mechanisation Programme

2.24. It has been stated that among the schemes which the Project undertook in order to achieve the objectives laid down in the agreement between the Government of India and Norway, mechanisation of fishing crafts occupies the most prominent place. In the area which the Project selected for intensive development there were nearly 400 fishing boats and none of these was mechanised. It was then thought that if some suitable engines could be successfully fitted into the country crafts, it would be relatively easy and cheaper to mechanise the fishing crafts. The Project undertook experiments in the mechanisation of country crafts and even though it was proved possible to mechanise the valloms, extensive trials revealed that

this type of crafts are unfit for conversion into an effective mechanised fishing boat. Therefore, special types of boats suited to the local conditions and at the same time economical to operate were designed. Marine diesel engines for these boats were imported from Norway. During 1954, a boat building yard was constructed for the construction of different types of mechanised boats. Until the end of March, 1963, when the establishment under this scheme was handed over to the Government of Kerala, the physical achievements were as follows.

Boat building yard and Workshop

I

Boats constructed:

1954	8
1955	18
1956	22
1957	17
1958	7
1959	21
1960	4
1961	29
1962 and upto 31-3-1963	17
	<hr/> 143

2.25. Out of these boats, 125 were issued to fishermen on subsidised rates and the year-wise break up of issue is given below:

1956	49
1957	18
1958	Nil.
1959	9
1960	12
1961	28
1962 and upto 31-3-1963	9
	<hr/> 125

2.26. Of the remaining 18 boats, 10 were issued to the Kerala State Department of Fisheries. Four were issued to the Fishermen's Cooperative Sales Organisation. Two are still with the Project. Two have been condemned and disposed of.

2.27. Since 1963, it has been decided that the Project will provide Marine Diesel Engines to all fishing boats that could be fabricated in the boat building yards of Project Centres at Mondapam, Karwar and Cannanore. Under this scheme following number of engines have been issued:—

Kerala	64
Mysore	16
Madras	46

2.28. During the current year, the Project has plans to distribute another 44 engines.

2.29. Asked about the procedure followed for issuing the boats to the fishermen, it has been stated in a written note submitted to the Committee that the boats were distributed by the State Departments of Fisheries according to the pattern of distribution laid down by them. They were given to the fishermen and fishermen's co-operatives. These boats are given by the Project under aid agreements.

2.30. Asked whether the performance of these boats has been upto the mark, the representative of the Project has stated during evidence that, "Actually 90 per cent of the boats designed by the Project are still in operation. We have the figures of comparative catches obtained by the boats designed by the Project and those designed by others, according to which the catches from the boats designed by the Project are larger than other boats." The representative of the Ministry, however, added that, ".....the fishermen liked the boat designed by the Central Institute of Fisheries Technology better than the Norwegian designs." The Committee have been further informed that the Indo-Norwegian Project has now adopted more or less the design suggested by the Central Institute of Fisheries Technology. As a matter of fact, year before last, out of 130 boats, 104 were built of this design.

2.31. The Committee commend the efforts made by the Indo-Norwegian Project in introducing the mechanised fishing boats. The Committee have already stressed the necessity of reducing the cost of the mechanised fishing boats, so that the poor fishermen could afford to purchase them and take advantage therefrom, in para 2.23 of their Thirty-Eighth Report on the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture)—Central Institute of Fisheries Technology, Ernakulam. They expect that the Indo-Norwegian Project would also take concerted steps in this direction.

2.32. The Committee would also stress the imperative need for close liaison and coordination between the Indo-Norwegian Project and the Central Institute of Fisheries Technology so far as the design of the fishing boats to be manufactured by the Project authorities is concerned. They would like the Project authorities to examine the feasibility of using the design of the mechanised fishing boats evolved by the Central Institute of Fisheries Technology, which is liked by the fishermen, for construction of mechanised fishing boats in future.

2.33. The Committee also desire that the feasibility of undertaking manufacture of marine diesel engines in India on the basis of the design of the engines which are now being imported from Norway, may be considered in case such engines have proved better than the indigenously manufactured ones.

D. Development activities at Cochin and other places

2.34. It has been stated that with a view to develop the Cochin Centre as a self-contained base for large and small vessels providing all facilities the Project has established a Fishery Station at Cochin/Ernakulam. This Station provides facilities for berthing, fish handling including storage and preservation, production of ice, docking and workshop, and repair and manufacture of nets. Physical achievements are as follows:

Sea House (a two-storey building which provides facilities for manufacture and repair of nets and also for the Project's central stores)	I
Slipway—which can haul vessels upto 120 ft. in length and which provides facilities for the repair/maintenance of three vessels at a time.	I
Workshop with all modern machinery & equipment	I
Jetties (piers)	3
Electronic workshop	I
Ice-cum-freezing plant, (which includes a processing hall and fish reception hall)	I

The under-water works of the slipway is yet to be completed.

2.35. The vessels operating from the above centre are:

VARUNA	An oceanographic research vessel with a built-in-laboratory and modern equipment such as radar, direction finder, sonar and three different varieties of echo-sounders and radio telephone.
HESSAGUTT	A stern trawler with all modern fishing and navigation equipment such as echo-sounders, asdic, radar, refrigerated fish hold, radio telephone.
HESSATRAL	A purse-seiner, equipped besides those listed for Hessagutt with a power block and a plate freezer.
KLAUS SUN-NANAA	An outrigger trawler with all modern equipment such as radar, radio telephone, asdic etc. etc.
KALAVA	A wooden hulled fishing vessel equipped with echo-sounders and radio telephone.

Besides the above vessels, 7 small vessels equipped with echo-sounders and radio telephones are also operating from Ernakulam.

2.36. Fishery stations on above lines are also being set up at Mandapam in Madras, Cannanore in Kerala and Karwar in Mysore. The

present position in respect thereof has been stated to be as follows:—

Mondapam.—Boat building yard and training centres are operating. The Ice and Cold Storage Plant is under erection and will be completed in two months. The Plans for the jetty have been finalised and the work will be taken up after receipt of the administrative sanction of the Madras Government. The plans and estimates for the fish-meal plant have been provided. The machinery is being supplied from Norway.

Cannanore.—The Boat building yard and training centres are operating. The Ice and Cold Storage Plant will be completed by March, 1968. The break-water is under construction.

Karwar.—The Boat building yard has been completed. The machinery for the Ice plant will be installed in 1968. Plans and estimates for the landing and berthing facilities have been finalised.

2.37. The completion of all the items of work at these places including Cochin/Ernakulam has been provided for in the Fourth Supplementary Agreement signed on the 17th March, 1967.

2.38. So far as the workshop at Cochin/Ernakulam is concerned, it has been stated that it has now become well-equipped and functional. The major portion of the work on the slipway has been completed and it is expected to become fully functional from early 1968. Pending completion, the slipway is now capable of taking vessels having a draft upto 8 ft.

2.39. So far as the construction of Jetty at Mandapam is concerned, the Study Group of the Estimates Committee which visited the site in September, 1967 have been informed that there has been considerable delay in its construction. Explaining the reasons for delay, the representative of the Ministry has stated during evidence that, "There was some delay in settling the design. In 1966 when the first design was given and when the testing was done, it was found that there were some coral rocks between 10 and 14 ft. Then a changed design was given in July, 1967. The estimates have been prepared. As soon as the administrative sanction is given, the work will be started."

2.40. The Committee are glad to note the development activities undertaken by the Indo-Norwegian Project at Cochin/Ernakulam, Mandapam, Cannanore and Karwar. They hope that the construction of the slipway at Cochin and Jetty at Mandapam will be completed as early as possible. They also hope that other items of work carried over from the Third Supplementary Agreement to the Fourth Supplementary Agreement will be completed without further delay.

CHAPTER III

TRAINING AND PUBLICITY

A. Training

3.1. It has been stated that with the introduction of mechanised fishing boats, the need to train fishermen in the operation and maintenance of marine diesel engines, navigation and modern fish catching method was paramount. Therefore a training centre for fishermen was established in 1955. Until the end of March, 1963, when the training centre was handed over to the State Fisheries Department, 167 fishermen were given training. Also attached to this training centre was a gear section which took up fabrication and repair of various kinds of nets and other fishing accessories, under the guidance of a Norwegian Gear Expert. Besides the above training, Indian Officers were given advanced training in various branches of fisheries in Norway. The achievements under the Scheme until March, 1963 are as follows:—

Training Centres.	1
No. of fishermen trained in the above centre.	167
No. of fishermen trained in Purse-seining	12
No. of Officers trained in Purse-seining	3
No. of Officers given training in Norway.	
(a) Fisheries.	8
(b) Medicine.	1

Numbers of Officers given training in Norway after 31st March, 1963 when Government of India took over the administration of the Project are as follows:—

(a) Fisheries	2
(b) Electronics	1

3.2. It has been further stated that with the general progress in the field of mechanisation and the introduction of large trawlers fitted with higher horse power engines, the emphasis was shifted to the training of personnel in the handling of large fishing vessels. Therefore the Third Supplementary Agreement between the Government of India and Norway which governed the activities of the Project from 1961 to March 1967 called for the training of personnel

such as **Skippers, Fishing Second Hands, Engineers and Engine Drivers** for vessels and shore technicians such as service mechanics, freezing plant technicians and processing assistants, at the Project's centre at Cochin. But this programme could not make much head way since the establishments in which training was to be given such as Ice and Freezing plant, Mechanical workshop etc. and larger vessels could not be made available sufficiently early to initiate the training.

3.3. As such one of the important objectives of the Indo-Norwegian Project as per the current Agreement is to train Indian personnel in fish processing operations and maintenance of freezing plant, ship repairing technology and in fishing and navigation of medium and large fishing vessels. At present there is a marked shortage for personnel qualified in the above fields. To give a fillip to this, the Project is proposing to launch full-fledged training courses in the above subjects. The present activities are as follows:—

(1) Training of Fishing Second Hands

Seventeen trainees who have undergone basic training in the Central Institute of Fisheries Operatives are being trained on board the four bigger project vessels. All the 17 trainees are expected to appear for the Fishing Second Hands examination of the Mercantile Marine Department after putting in 15 months of sea service on board these vessels. Once they qualify themselves as fishing second hands, they are eligible to be in charge of fishing vessels upto 50 Gr. tonnage.

(2) Training of Skippers

Six fishing second hands are being trained for skippers examination on board the above vessels. After two years of sea service on these vessels, they can appear for the Skippers examination whereby they can qualify to be in charge of fishing vessels of any size.

(3) Sea going engine drivers.

Six engine drivers who have first class and second class Inland Motor Vessel certificate are being trained for the above examination. These people after putting in one and a half year of continuous sea service on these vessels having 286 HP and above can appear for the above examination and can be incharge of engines upto 50 nominal H.P.

(4) Processing technicians

The project intends to recruit and train suitable candidates who are preferably to be sponsored by State Governments of private

processors in processing technology. For this purpose a well-equipped and modern fish processing unit and laboratory have been set up and the syllabus and required equipment, etc. for this have been prepared. It is proposed to take 12 trainees initially.

(5) Freezing Plant mechanics and operators

Steps have already been taken to initiate training. It is proposed to take 16 candidates to begin with.

(6) Service mechanics (Ship technology)

Sixteen trainees are proposed to be taken as soon as the slipway is completed. The minimum qualification for all the above training will be SSLC.

(7) Course in electronics

Although the project does not propose to start regular training course in electronics, the electronics section of the Indo-Norwegian Project has been imparting training to officers deputed by State and Central Government Departments in the installation and maintenance of echo-sounders, radio telephones, fish-finders and radar. A few officers who have been recommended by the Governments of Andhra Pradesh and Mysore have already been trained.

3.4. The Committee desired to know the present capacity of the Project and its Stations for training of fishing personnel. In reply, the Government have submitted the following statement:

	Ernakulam	Cannanore	Karwar	Mandapam
(1) Training fishermen in management and maintenance of (fishing from) mechanised fishing boats of medium size.	..	40	25	60
(2) Training Second Hands for large vessels.	15
(3) Engine Drivers for large vessels.	3
(4) Skippers for large vessels	3

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3.5. It has been stated that this capacity is being fully utilised.

3.6. Asked what are the criteria of selection of trainees and what facilities, stipends etc. are given to them, it has been stated in a

written note submitted to the Committee that the trainees at the centres at Cannanore, Karwar and Mandapam are selected by the concerned State Department of Fisheries according to the criteria followed by the State Governments. The trainees for fishing second hands and engine drivers are deputed by the Central Institute of Fisheries Operatives for practical training after their theoretical training in that Institute. The trainees for skippers are taken from persons who secure the certificate of Fishing Second Hands. This is by open selection.

The trainees for fishing from medium/small mechanised boats at Cannanore, Mandapam and Karwar are paid stipends by the concerned States according to the pattern existing in those States. The Project has provided fully equipped training centres in these places and has placed the services of one Norwegian fishing expert and one Norwegian mechanic at each place for instruction. The other training courses are all practical training on board the Project's larger fishing vessels. The Project pays each trainee a stipend of Rs. 100 p.m.

3.7 Asked to indicate the State-wise distribution of trainees during the last five years, it has been stated in a written note submitted to the Committee that the trainees for undergoing training in fishing from small and medium mechanised boats are restricted to the fishermen of the concerned States i.e. Kerala (Cannanore), Mysore (Karwar) and Madras (Mandapam).

The other training programmes have been taken up only during the last 12 months. The State-wise distribution of these trainees is furnished below:

	Kerala	Mysore	Maharashtra
Fishing Second Hands.	14	..	I
Engine Drivers	2	1	..

3.8. Asked whether any liaison or coordination is being maintained by the Project with the Central Institute of Fisheries Operatives so far as training of fishery personnel is concerned, it has been stated in a written note submitted to the Committee that there is close co-ordination maintained by the Project with the Central Institute of Fisheries Operatives in the training of fishing personnel. The trainees of the Central Institute of Fisheries Operatives after the completion of their courses in the Central Institute of Fisheries Operatives are

sent to the Indo-Norwegian Project for their sea service training courses and workshop experience. The experts of the Indo-Norwegian Project also undertake instructional lectures to the trainees of the Central Institute of Fisheries Operatives. The Assistant Engineer (Electronics) of the Project has given a few lectures on electronic equipment. The Norwegian Naval Architect is to give lectures to the Boat Building Designer's course trainees. The Project has now provided the services of an Electronic Instructor to undertake the course on Electronic Equipments.

3.9. Asked whether the various courses now started by the Indo-Norwegian Project could not be started earlier, the representative of the Project has stated during evidence that, "The training of fishing second hands, engine drivers and skippers could be undertaken only after we got three big vessels in September, 1966, because this training has to be given to persons who can operate on these vessels. The training course for processing technicians and processing plant operators should have been started earlier, but by that time the new Agreement had to be signed and immediately after signing the new Agreement, we have taken up this kind of training."

3.10. The Committee are glad to note that the training programme launched by the Indo-Norwegian Project is being executed in close collaboration with the Central Institute of Fisheries Operatives and the concerned State Governments. They suggest that the overall requirements of the industry, various Research Institutes, etc. may be kept in view so that the facilities available for training in the Project could be suitably augmented. In this connection, the Committee would like to draw the attention of the Government to the recommendation contained in para 2.19 of their Forty-First Report on the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture)—Central Institute of Fisheries Operatives, Ernakulam.

3.11. The Committee hope that the contemplated courses of training for processing technicians, freezing plant mechanics, etc. will be started by the Project as early as possible.

B. Publicity

3.12. It has been stated that except for a few articles on the Indo-Norwegian Project, brought out in some journals in India, no publications on the Project have been brought out by the Project in India on its working. It has been further stated that the work of the Project is done mainly through practical training and the question of publicising its activities has not been specifically considered. Articles in Fisheries Journals on the Project would, however, be in the general interest and this matter will be reviewed.

3.13. The Committee have been informed during evidence that the scientific data of the Project are handled by the Central Marine Fisheries Research Institute, Mandapam Camp. Then publicity is done through annual reports. However, no special publicity is being given. It has been stated that, "It is just a haphazard publicity . . ."

3.14. Asked whether any demonstrations have been arranged by the Project, the representative of the Project has stated during evidence that, "We have not arranged any demonstrations but in certain specific cases, we took batches of fishermen and entrepreneurs on board the Project's vessels to show perch fishing and purse-seining operations."

3.15. The Committee feel that adequate publicity and demonstrations can go a long way in bringing home in a visual form the results achieved by the Project to the users. They suggest that the feasibility of bringing our Bulletins, News letters, etc. and articles in various Fisheries Journals on the working of the Project may be considered. They also desire that demonstrations on improved methods of catching, processing, cleaning of the premises, etc. may be arranged by the Project for the benefit of the fishermen and industry.

CHAPTER IV

MARKETING AND EXPORTS

A. Marketing

4.1. It has been stated that in order to pave way for better and more hygienic distribution and marketing of fresh fish, the Project established a modern fish stall in the industrial township at Alwaye. Equipped with a medium sized freeze and also storage room, this stall caters to the needs of fresh fish of the township to some extent. At Ernakulam and Bangalore, the Project intends to start one fish stall at each place. Pending construction of the fish stall at Ernakulam, the Project has initiated direct retail sale of fresh and chilled fish and is receiving large public attention.

4.2. The sales of fish from the Alwaye and Project centres from 1.4-1967 to 30-9-1967 have been stated to be as follows:—

	Quantity	Value
	Kg.	Rs.
Alwaye Centre	13865	16872
Project Centre	14964	26019

It has been stated during evidence that the economic aspects of these two centres have not been worked out. These centres are only of model types so that they could set patterns for others.

4.3. The Committee are glad to note that modern distribution and marketing centres for sale of fish have been established by the Indo-Norwegian Project at Alwaye and the Project's premises at Cochin. They also note that the Project intends to start such centres at Ernakulam and Bangalore as well. The Committee would like the Project Authorities to draw up a plan for opening such centres at various places in a phased manner. The Committee would also suggest that the economics of such centres should be worked out so as to ensure that they do not incur any losses. It would be better if these centres are run on no-profit no-loss basis.

B. Exports

4.4. It has been stated that the Standing Committee at its 22nd meeting recommended the utilisation of ice-cum-freezing plant set up by the Project. It proposed to do processing of fish by the Project with a view to prepare frozen marine products for export and also for preparation of chilled and frozen fish for internal marketing and preparation of "convenience foods" for internal marketing.

4.5. Government of India considered the proposal of the Standing Committee in detail and decided that the plant may be operated directly by the Project as a training-cum-pilot plant for demonstration and training and to export prawns to U.S.A. and also to utilise the ice-cum-freezing plant to the maximum extent possible.

4.6. It has been stated that it is not the intention of the Government to add one more freezing unit for the export of prawns and to compete with other firms engaged in similar exports. The intention is to demonstrate to the other exporters how prawn processing can be achieved under the most hygienic conditions.

4.7. Asked whether export of marine products is not outside the purview of the objectives of the Project, it has been stated in a written note submitted to the Committee as under:—

"It is true that export trade is outside the purview of the objectives of the Project. Training and demonstration forms one of the most important objectives of Indo-Norwegian Project. In order to achieve this objective the Standing Committee of the Project decided that the freezing plant set up with the assistance of the Norwegian Government should be operated departmentally as a training-cum-demonstration plant. A processing line was accordingly started. Then the question arose as to the best way of disposal of the resultant frozen prawns. Since exporting of these prawns will fetch considerable foreign exchange it has been decided to market the entire produce in the United States. A detailed scheme of production could not be drawn up so far pending finalisation of the procedure of purchase of raw materials necessary for the plant. However, production was started in February, 1967, on a small scale with fish catches of the Project's vessels. When the plant operates at its full capacity it is estimated to produce about 700 tons of frozen prawns valued at about Rs. 1 crore. During the current year the total expenditure has estimated at Rs. 31 lakhs as against

anticipated receipt of about Rs. 40 lakhs. The earnings connected with the operation will be retained by the Government of India."

4.8. Asked what repercussions this is going to have on the Indian Sea Food Industry, it has been stated that the operation of the freezing plant and export of its produce will not adversely affect the India Sea Food Industry or the Fish Export Industry. On the contrary, it is expected that the Indo-Norwegian Project by its demonstration and training will help the export industry by raising the quality of Indian shrimp exports and enabling our exports to compete more effectively with those of other countries. Training of personnel in freezing techniques and giving demonstrations for benefit of private industry forms part of the programme.

4.9. It has been further stated that there is an ever increasing demand for frozen prawns in U.S.A. and as such direct export of prawns by Indo-Norwegian Project will not affect the private exporters. Moreover, Indo-Norwegian Project also depends for its raw materials on the prawn catches of its own vessels and this also will not have any adverse impact on the private industry.

4.10. It has been stated in a Memorandum submitted by an Association to the Committee that, "It is also understood that the Indo-Norwegian Project has been authorised to enter the export field. This is contrary to the objects of the Project. This Association has objected to the entry of the Indo-Norwegian Project into the export trade of India and we still maintain that the Indo-Norwegian Project should be considered as an organisation which will give advice, assistance and education leading towards the development of Indian fisheries. The authority given to the Indo-Norwegian Project to enter the export field should be revoked and they may be requested to contain their activities to developmental operations."

4.11. Another Organisation, in its Memorandum submitted to the Committee, has stated as follows:—

".....the project which started to assist the fishermen has now started direct commercial activities. There are a large number of firms engaged in the export of frozen shrimp in Kerala earning about Rs. 13.5 crores worth of foreign exchange. The entrance of the Project in the field is only adding one more element in the already competitive field thus leading only to a further division of the raw material already available in the State."

4.12. Asked whether any representations have been received from the India Sea Food Industry in this regard, the Ministry have stated in a written note that the Sea Food Cannery and Freezers Association of India submitted a representation on the 8th June, 1965. The following were the main objections raised by the Association:—

- (i) If the Project effects purchase of prawns, lobsters and frog legs from the local market and distributes as an incentive, ice at very low rates to the catching and supplying agencies, this will create unfair competition and injure the interests of other concerned who are now engaged in the freezing and export of prawns, lobsters and frog-legs.
- (ii) The freezing capacity of the various plants in Cochin area is 3 to 4 times more than the actual production achieved by them. This is because of the scarcity of raw material and if a Government Organisation like the Indo-Norwegian Project also starts purchasing raw materials from the existing sources it will result in severe loss for the private operators.
- (iii) If the Project desires to augment the foreign exchange earnings of India by increasing exports, the natural course should be for them to get their own raw material by fishing and then processing it for export. Acquiring supplies from the existing sources will not in any way add to the total quantum of Indian exports or foreign exchange earnings by the country.
- (iv) The original objective of the Project was to utilise the Ernakulam plant for the freezing and internal marketing of fish catches. If the Project cannot employ additional fishing boats and enhance the catches of prawns, they should confine to their original plan of processing, preserving and marketing locally of fish catches.

4.13. In view of the objections raised by the Sea Food Cannery and Freezers Association of India, it was initially decided that the processing and freezing should be confined to the catches of the vessels of the Indo-Norwegian Project alone. But subsequently on the basis of the decision taken by the Standing Committee of the Indo-Norwegian Project and also in view of the suggestion made by the Ministry of Finance to the effect that the plant should be utilised to its full capacity, it was decided that the Indo-Norwegian Project Plant may take over the catches of the vessels of other Government of India Institutes located in Cochin and also if

necessary purchase prawns from the local market. The plant has started freezing operations from February, 1967. It has so far confined its operations only to the catches of the Indo-Norwegian Project vessels and has not entered the local market for purchase of prawns.

4.14. The Committee have been informed during evidence that, "The position is that we have the freezing plant at Ernakulam in the Project. The plant is capable of freezing upto 700 tons of fish (i.e. prawns) which we can export for a value of Rs. 1 crore. But that has not been the main consideration in taking up for export, because the objectives of the Project are very specific. They do not include entering into the commercial field. We pondered over this point in the Standing Committee. We had doubts whether we should really enter into the export field. We know there would be objections from the exporters in Kerala where prawn export has already developed quite substantially. Our specific object has been to demonstrate better methods of processing. Now with the expertise available in the Project, what we felt was that we should be able to develop better processing techniques, we should be able to do the various stages of processing in a better manner and also probably get a higher return for this prawn when it is exported to the U.S.A. We cannot get a higher return immediately, because immediately what we can get is the ruling price. If this prawn really proves to be better than what is normally exported from this region, then it would have a very good effect on our exports in general. The other exporters will come to realise that a better quality prawn can actually get a better price."

4.15. The Committee have been further informed during evidence that, " it is better to be quite specific that this Project catches prawns. It is certainly in the interest of those involved in it to get the best value out of it. We have got a very good freezing plant, which is not being worked to capacity. It is merely training and so on. Utilisation of the capacity is also desirable. The Standing Committee has taken the decision and the Ministry of Finance have also emphasised this, that the catch of the Project's vessels and the catch of the vessels of other Government of India institutions in the area should go through this freezing plant and we should utilise the exportable capacity."

4.16. In reply to a question, the representative of the Ministry has stated during evidence that, "We are helping the seafood industry to have more boats and more catches. There is a temporary shortage of fish, because the demand has certainly spurred and the

catch has not increased so much. Probably it will balance itself with new boats and new fishing enterprises."

4.17. In reply to a question, the representative of the Ministry has stated that, "When a stage comes of better catches and facilities, may be we will have to put this under a commercial organisation or something like that may have to be done. We cannot say anything definite today."

4.18. The Committee note that the Indo-Norwegian Project has been authorised to enter the export field in order to utilise fully the capacity of the ice-cum-freezing plant set up by them at Cochin. They also note that initially it was decided that the processing and freezing should be confined to the catches of the vessels of the Indo-Norwegian Project alone but subsequently they have been authorised to utilise the catches of the vessels of other Central Government institutes located at Cochin and also to purchase fish from local market. The Committee feel that while it is desirable that the capacity of the ice-cum-freezing plant should be fully utilised, entry into the export market by Indo-Norwegian Project, which is devoted mainly to research and training, is outside its objectives. If, however, Government considers it necessary to export the frozen products processed by the Indo-Norwegian Project on a long-term basis the Committee suggest that the desirability of putting such operations under a commercial organisation may be considered.

C. Ice-cum- freezing Plant

4.19. It has been stated that the Ice-cum-freezing Plant of the Indo-Norwegian Project was established at Ernakulam in November, 1965. The total cost of the plant is Rs. 12,98,200. Norwegian assistance in this is Rs. 8,04,300.

4.20. The production capacity of the ice plant is 25 tonnes of ice per-day. The ice produced is intended both for departmental consumption (i.e. used for preserving catches on board the vessels and for prawn processing) and also for selling to the prawn exporters in the private sector, whenever there is a surplus over departmental requirements. Initially the sales will exceed departmental consumption, but as the prawn processing unit gains tempo, the departmental consumption will pick up.

4.21. It has further been stated that the freezing unit is operated in a most hygienic condition and unlike other firms peeling is done in a processing hall within the campus itself under a fly-proof com-

partment with glazed tile flooring and walls. Most upto date imported machinery has been installed. The other fishing industry can also introduce similar peeling sheds, etc. to have more hygienic conditions.

4.22. The intention of setting up this freezing plant is to demonstrate to the other exporters how prawn processing should be done.

4.23. The Committee are glad to note that the Indo-Norwegian Project has set up a modern ice-cum-freezing plant at Cochin. They hope that the plant will serve as a model plant and it will be fully utilised for training-cum-demonstration purposes. For this purpose, representatives from the industry should be invited regularly to see the working of the plant so that similar working methods could be adopted by them.

NEW DELHI;
April 4, 1968

Chaitra 15, 1890 (Saka).

P. VENKATASUBHAIAH,
Chairman,
Estimates Committee.

APPENDIX I

(*Vide para 1.26 of the Report*)

Details of tenures of appointment of Norwegian personnel, etc.

(a) DIRECTORS

1.	Diedrich H. Lund	.	.	Oct. 1952	Sept. 57
2.	Gerhard M. Gerhardsen	.	.	Sept. 1957	April, 58
3.	Trygve Aas (Acting)	.	.	April 1958	Feb. 59
4.	Ernest Krogh-Hansen	.	.	Feb. 1959	Jan. 61
5.	Lars Onsager	.	.	April 1961	Dec. 61
6.	Per Sandven (acting)	.	.	Jan. 1962	Feb. 62
7.	John E. Hareide	.	.	Feb. 1962	Nov. 63
8.	E. D. Volkmar	.	.	Nov. 1963	Sept. 64
9.	Per Sandven	.	.	Oct. 1964	Feb. 65
10.	Martin Tveit	.	.	March 1965	March 66
11.	E. Fjermeros	.	.	Feb. 1966	Continu in

(b) FISHERIES LEADERS

1.	Magnar O. Kristensen	.	.	Aug. 1953	Oct. 53
2.	Anders L. Giske	.	.	Dec. 1954	Aug. 55
3.	Thoralf M. Nilsen	.	.	Sept. 1955	Dec. 56
4.	G. M. Gerhardsen	.	.	March 1957	Sept. 57
5.	Trygve Aas	.	.	April 1958	Sept. 59
6.	Kluas Sunnani	.	.	Aug. 1959	Sept. 60
7.	Johan E. Haredide	.	.	Aug. 1960	Nov. 63
8.	Sivert Rundhaug	.	.	Oct. 1964	March 67
9.	Th. Onarheim	.	.	May 1967	—

CIVIL ENGINEERS

1.	Allen Jebsen	.	.	Feb. 1953	Feb. 56
2.	G. Jyssum	.	.	Jan. 1955	April 58
3.	Paul Oldstad	.	.	May 1958	July 58
4.	A. Hjelm Hansen	.	.	Jan. 1958	Dec. 59
5.	G. Jyssum	.	.	Nov. 1959	July 62
6.	P. Norheim	.	.	Dec. 1962	Nov. 65

7.	Arne Dahl	April 1966	Feb. 67
8.	A. Hollerud	Oct. 1965	Continuing
9.	Sven Svendsen (Harbour expert)	Aug. 1957	Sept. 57
10.	Mange Bortne	Oct. 1960	May 63
11.	T. H. Breiby	April 1962	July 64
12.	Ove Eide	Nov. 1962	Dec. 62
13.	A. Hollerud	Oct. 1963	Nov. 64
14.	Roald Svec	Oct. 1964	Sept. 65
15.	K. Rogne	Jan. 1967	Continuing

ASSISTANT FISHERIES LEADERS AND FLEET MANAGERS

1.	Sverre Vazgen	March 1953	July 55
2.	A. Szolbakk	Aug. 1955	June 56
3.	A. Nordset	April 1957	Dec. 58
4.	B. Larssen	May 1957	July 61
5.	K. Pettersen	May 1958	May 59
6.	K. Alfsvag	Aug. 59	Aug. 60
7.	I. Letnes	Sept. 60	Aug. 61
8.	O. W. Haaland	March 60	June 62
9.	R. Imvaen	Sept. 61	July 64
10.	B. Andersskog	April 62	Feb. 65
11.	O. Chri. Jenssen	Nov. 65	June 66
12.	K. Larsen	Aug. 64	Sept. 65
13.	Binar Boe	Sept. 64	July 65
14.	T. Klovning	Aug. 65	June 67
15.	Jacob Haug	Aug. 65	Continuing
16.	I. Molnes	Aug. 65	June 67
17.	S. Saetre	July 66	July 67
18.	R. Erstad	April 56	Oct. 58
19.	A. Moldskred	June 62	May 63
20.	P. K. Eilefsen	July 67	Continuing
21.	Lars Fjell	March 57	Feb. 58
22.	K. Pattersen	May 58	May 59
23.	K. Alfsvag	Aug. 59	Aug. 60
24.	I. Letnes	Sept. 60	Aug. 61

BOAT BUILDERS AND NAVAL ARCHITECTS

1.	O. Bratholman	Nov. 53	Jan. 60
2.	E. Stenodegaard	March 60	Aug. 62
3.	J. Maire	Feb. 63	Jan. 65

4. P. Ziener	June 65 March 66 June 67	Dec. 65 Jan. 67 Continuing
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MANAGER

1. P. Bog	March 53	April 55
2. P. Sandven	May 55	Aug. 55
3. J. B. Vennerd	Nov. 55	July 57
4. G. Steinshamn	March 57	June 58
5. J. B. Fossbakk	June 58	Aug. 61
6. J. Meisfjord.	Oct. 61	Aug. 64
7. L. F. Onarheim	July 64	July 65
8. S. Kir	June 65	June 66
9. O. H. Holthe	June 66	May 67
10. B. Aabakken	May 67	Continuing

MECHANICAL ENGINEER

1. J. M. Claesson	Nov. 53	Aug. 55
2. I. M. Johansen	Aug. 55	Nov. 58
3. A. Andersen	Oct. 58 Sept. 60	June 59 Aug. 63
4. O. Halvorsen	March 64	Continuing

SKIPPER/MASTER FISHERMEN

1. A. Abrahamsen	Nov. 53	July 59
2. K. Otterlie	Nov. 53	June 54
3. T. Torbergson	Jan. 55	Aug. 55
4. A. Hallen	Jan. 55	Aug. 55
5. N. Rossevold	Jan. 55	Aug. 55
6. E. Hatlen	Jan. 55	Aug. 55
7. H. Harvik	Jan. 55	Aug. 55
8. E. Slinning	Jan. 55	Aug. 55
9. L. Larsen	Jan. 55	Aug. 55
10. I. Smaage	Jan. 55	Aug. 55
11. J. Giske	Jan. 55	Aug. 55
12. A. Skarlo	Jan. 55	Aug. 55
13. K. Saether	Jan. 55	Aug. 55
14. H. Saevik	Jan. 55	Aug. 55
15. R. Myklebust	Jan. 55	Sept. 59
16. H. Otterlie	Jan. 55	Sept. 57
17. R. Dyrnes	Aug. 55	July 59
18. S. Sorensen	Sept. 55	Dec. 55

19. G. Log	Sept. 55	Oct. 58
	Jan. 59	Mar. 61
20. Abraham Abrahamasen	Sept. 55	June 58
21. J. Gjertsen	Sept. 55	July 57
22. T.O. Uaegen	Sept. 55	July 56
23. Kjell S. Long	Sept. 55	Feb. 56
	Dec. 59	Feb. 61
24. H. Hansen	Sept. 55	Sept. 57
25. B. Hansen	Aug. 56	June 57
26. G. Olsen	June 56	June 57
27. T. Asgcirn'lsen	July 56	Sept. 57
28. A. Christensen	Aug. 56	Aug. 57
29. K. Karlsen	Oct. 56	Aug. 57
30. J. Syvertsen	Oct. 56	May 60
31. H. Vollesfjord	Oct. 56	May 59
32. Lars Viding	March 57	Dec. 57
33. B. Saestad	March 57	April 58
34. J. Wikre	March 57	April 58
35. I. Pedersen	Oct. 57	March 58
36. S. Lofnes	Sept. 58	Sept. 59
37. B. Storkersen	May 59	May 62
	July 66	Continuing
38. P. Strm	May 59	April 61
39. E. Vea	May 59	July 61
40. K. Einarsen	Sept. 59	May 63
41. T. Jacobsen	Oct. 60	Nov. 61
42. S. Sund	Aug. 60	May 62
43. S. Klevstad	March 61	May 62
44. Kare Larsen	Nov. 61	Sept. 65
45. S. Andreassen	Oct. 61	May 63
46. J. Arntsen	April 62	July 62
47. H. Olsen	April 62	Oct. 63
48. P. Storkersen	Aug. 62	Aug. 64
49. K.K. Golten	Aug. 62	May 66
50. V. Andreassen	May 63	April 66
51. S.M. Sactre	July 63	July 67
52. H. Ved	Nov. 62	Oct. 64
53. D. Kristoffersen	Nov. 63	March 65
54. I. Dale	Oct. 64	May 66
55. B. Hagen	Oct. 64	March 67
56. O. Saevik	Aug. 64	June 67

57. P. Fjeldstad	Aug. 65	July 66
58. I. Fjeldstad	Jan. 66	Nov. 67
59. P. Eilertsen	Sept. 66	July 67
60. S. Eilertsen	Sept. 66	Sept. 67
61. J. Fryen	Sept. 66	Continuing
62. I. Haga	Sept. 66	July 67
63. H. Kristensen	Sept. 66	Continuing
64. K.H. Bakke	July 67	Continuing
65. I. Remy	Oct. 67	Continuing

STENOGRAPHER

1. J. J. Berge	Oct. 56	April 57
2. I. Steinassen	May 57	March 58
3. H. Berge	April 58	May 59
4. B. I. Back	May 59	April 60
	May 64	Aug. 66
5. E. Strmsheim	April 62	Aug. 64
6. T. Blikberg	Aug. 66	Dec. 67

MARINE ENGINEERS FOR FISHING VESSELS

1. John Haaland	March 57	Aug. 60
2. Bernhard Behrne	Oct. 60	Oct. 67
3. Hans Huft-Hammer	Nov. 61	March 62
4. Tormod Olsen	Nov. 61	Oct. 62
5. Nils Saetre	Nov. 62	May 64
6. Olav Boge	Nov. 64	Aug. 65
7. H. Henriksen	July 65	Dec. 67
8. K. Torge	Sept. 66	Continuing
9. J. Wang	Sept. 66	Continuing
10. B. Klovning	Sept. 66	Continuing

SECRETARIES

1. R. Nomme	May 65	March 67
2. O.J. Lvhaug	April 62	June 65
3. L. Kvenild	May 67	Continuing
4. E.W. Nilsen	April 55	March 58
5. A. Moldskred	April 58	Oct. 61
6. T.H. Horsten	April 58	March 60
7. H. Eide	March 60	April 63
8. O. Berget	Jan. 64	June 65
9. L. Thorstensen	Aug. 65	June 66
10. O. Steine	June 66	Continuing

MARINE BIOLOGIST OR OCEANOGRAPHER

1. P. Myrland	March 57	April 58
	Nov. 61	May 63
2. O. J. Osjvedt	Oct. 58	May 59
3. J. H. Lahn-Johannessen	Aug. 66	Continuing

REFRIGERATION ENGINEERS

1. Ingar Iredriksen	June 56	Nov. 57
2. J. H. Foss	Jan. 65	May 66
3. A. Buas Hansen	July 66	Continuing
4. H. Obrestad	July 66	Sept. 67
5. K. Simonsen	Sept. 66	Continuing
6. O. Verland	Oct. 67	

GEAR EXPERT

1. Rasmus Mruissen	Feb. 58	July 58
2. H. Mong	Dec. 59	Aug. 62
3. B. Pedersen	Oct. 65	Continuing

DREDGING TECHNICIAN CRANE OPERATOR

1. Alf Johnsen	July 63	Nov. 65
2. N. Linnquist	Feb. 66	Continuing

ELECTRONIC EXPERT

1. Tor Tuv	Jan. 58	May 59
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INSTRUCTOR ON BEACHLANDING

1. Borge Christensen	May 58	May 59
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EXPERT TO ASSIST THE MANNING OF C. I. F. O.

1. Tambs Lyche	Feb. 62	April 62
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MECHANICS

1. T. S. Soteland	1-11-65	Nov. 66
2. O. Hansen	Oct. 66	Continuing
3. A. Pedersen	Nov. 66	Continuing
4. L. Andersen	Oct. 66	Continuing

EFFICIENCY EXPERTS

1. A. Faengsrud	March 57	Nov. 57
2. J. W. Røgeberg	March 57	Nov. 57

DIVERS

1. Gundersen	July 67	Continuing
2. Gjeruldsen	July 67	Continuing
3. Lseth	July 67	Continuing
4. Lunden	July 67	Continuing

DOCTORS

1. H. Lid	Sept. 53	March 55
2. C. Schreiner	Feb. 55	Sept. 56
3. S. Sandmow	Aug. 56	Aug. 57
4. L. Barstad	July 57	June 58
5. T. Skillestad	June 58	July 8
6. O. Sverre	Jan. 59	Jan. 60
7. J. Solem	Jan. 60	Nov. 60
8. K. Nybo	Oct. 60	Nov. 61
9. H. H. Tjn	June 62	April 63
10. R. Begbom	April 63	—
11. E. J. Borle	Jan. 63	—

NURSES

1. A. Baasen	Sept. 53	March 55
2. K. Falck	April 55	June 57
	Jan. 59	Oct. 60
	March 63	
3. G. Saetre	Jan. 57	June 58
4. D. Borte	—	Dec. 61
5. I. Littlekalsy	Jan. 62	April 63
6. Miss K. L. Moe	April 63	—

BACTERIOLOGIST

1. H. Chr. Ness	Feb. 61	March 62
2. I. Dalseth	Oct. 62	—

LABORATORY TECHNICIAN

1. E. Sverdrup	Feb. 61	April 61
2. R. Mossin	Aug. 61	Oct. 62
3. Mrs. H. K. Dalseth	Oct. 62	—

APPENDIX II

Summary of the Recommendations/Conclusions contained in the Report

S. No.	Reference to Para No. of the Report	Summary of Recommendations/Conclusions
(1)	(2)	(3)
1.	1.11	The Committee note the objectives laid down in the various Agreements signed by the United Nations, Government of India and Government of Norway for the development of India's fisheries.
2.	1.12	The Committee appreciate the pioneering work and efforts made by the Indo-Norwegian Project in India by providing material, equipment and expert knowledge for intensive development of fisheries, facilities for training and experimental and exploratory fishing etc. The Committee agree that the most important achievement of the Project is the catalytic effect it has had on the development of the marine fisheries along the South-West coast of India.
3.	1.13	Since two of the objectives of the Project were (i) an improvement in the health and sanitary conditions of the fishermen and (ii) in general, a higher standard of living for the community in the project area, the Committee consider, it would have been desirable to set apart specific sums for improvement of housing conditions, drinking water, education, transport, etc. of the fishermen of the area so as to bring about an improvement in their social and economic condition.
4.	1.14	The Committee suggest that a detailed study may be undertaken by the Ministry with a view to see to what extent the objectives laid down in various Agreements have been achieved and the impact of the working of the Indo-Norwegian Project on the development of India's fisheries.

(1)	(2)	(3)
5.	1.29	<p>The Committee note the organisational set-up of the Indo-Norwegian Project. They further note that during the last 15 years of the life of the Project, there have been as many as 11 Directors from the Norwegian side and that there have been frequent changes in other Norwegian technical personnel. The Committee need hardly point out that frequent changes in the technical personnel, and especially of the Director, have a deleterious effect on the smooth and efficient functioning of an institution. The Committee trust that suitable measures will be taken to remedy the situation.</p>
6.	1.30	<p>The Committee further feel that there is need for the Norwegian Director and the Indian Director to work in close cooperation so as to ensure smooth administration of the Project. Close liaison and co-ordination between the Centre and the concerned States has also to be maintained for the purpose.</p>
7.	1.31	<p>The Committee suggest that the Indian technical personnel should be progressively associated with their Norwegian counterparts so as to enable them to take over the administration and operation of the Project after the termination of the present arrangements.</p>
8.	1.39	<p>The Committee do not feel convinced by the reasons advanced by the Government for the heavy shortfalls in the expenditure incurred by the Indo-Norwegian Project in 1964-65 and 1965-66. They would stress that the programmes of the Project, for which budget provisions have been made, should be executed with a sense of urgency, unless there are circumstances which are beyond the control of the Project Authorities.</p>
9.	1.40	<p>The Committee note that about a third of the expenditure from Norwegian side has been incurred on the salaries and allowances of the Norwegians since the inception of the Indo-Norwegian Project. In the opinion of the Committee, more expenditure should have been incurred on items such as, craft and gear.</p>

(1)	(2)	(3)
		equipment and other machinery and other development schemes. The Committee suggest that necessary corrective steps may be taken in this behalf.
10.	1.43	The Committee feel that there is a need for a regular evaluation of the work of the Indo-Norwegian Project to ensure that the results are commensurate with the expenditure involved.
11.	2.7	The Committee note some of the research activities undertaken by the Indo-Norwegian Project. They would stress the desirability of fostering close liaison and coordination between the Project, Central Marine Fisheries Research Institute and Deep Sea Fishing Organisation as well as other Central and State Research Institutes to avoid any inadvertent duplication and overlapping. The Committee would also stress that the Project should strive to establish close links with the fishery industry so that the industry could exploit the results achieved by the Project.
12.	2.8	The Committee hope that 'purse-seining' survey of the tuna fishery will be undertaken at the earliest possible opportunity so that India could also exploit this important species of fish which is now being exploited by Japan and USSR in the Indian Ocean.
13.	2.22	The Committee note the present position of the vessels received so far by the Indo-Norwegian Project under various Agreements. They are, however, unhappy to observe that performance of some of these vessels has not been very satisfactory and the repairs costs on them have been quite heavy. In the opinion of the Committee, it should have been possible for the Government to make some sort of arrangement with the Norwegian authorities to check up the suitability or otherwise of these vessels in the Indian climatic conditions. This would have resulted in the saving of three wooden vessels which had to be decommissioned as soon as they arrived here owing to dry rot. In the opinion of the Committee, while importing equipment

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for fisheries development, better knowledge of local climatic and other conditions of the Indian authorities should be utilised to avoid such cases.

14. 2.23

The Committee are unhappy to note that some of the Project's vessels have not been adequately and properly manned, with the result that the fishing operations have been adversely affected. The Committee would stress the need for accelerating the training programmes in the Indo-Norwegian Project as well as in the Central Institute of Fisheries Operatives so that there may not be any dearth of certified bosuns for the Project's fishing vessels. The Committee, however, note with satisfaction that it is proposed to improve the manning and operation of the Project's vessels and to commercialise the operation of the vessels by giving proper incentives to the crew. The Committee also stress the desirability of keeping the repairs costs to the barest minimum. They also hope that shortcomings noted in the performance of these vessels will be removed as early as possible. So far as the pay-scales and incentives to the floating staff is concerned, the Committee would like to draw the attention of the Government to the recommendation contained in para 3.7 of their Fortieth Report on the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture)—(i) Deep Sea Fishing Organisation, Bombay; and (ii) Landing and Berthing Facilities.

15. 2.31

The Committee commend the efforts made by the Indo-Norwegian Project in introducing the mechanised fishing boats. The Committee have already stressed the necessity of reducing the cost of the mechanised fishing boats, so that the poor fishermen could afford to purchase them and take advantage therefrom, in para 2.23 of their Thirty-Eighth Report on the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture)—Central Institute of Fisheries Technology, Ernakulam. They

(1)	(2)	(3)
		<p>expect that the Indo-Norwegian Project would also take concerted steps in this direction.</p>
16.	2.32	<p>The Committee would stress the imperative need for close liaison and coordination between the Indo-Norwegian Project and the Central Institute of Fisheries Technology so far as the design of the fishing boats to be manufactured by the Project authorities is concerned. They would like the Project authorities to examine the feasibility of using the design of the mechanised fishing boats evolved by the Central Institute of Fisheries Technology, which is liked by the fishermen, for construction of mechanised fishing boats in future.</p>
17.	2.33	<p>The Committee desire that the feasibility of undertaking manufacture of marine diesel engines in India on the basis of the design of the engines which are now being imported from Norway, may be considered in case such engines have proved better than the indigenously manufactured ones.</p>
18.	2.40	<p>The Committee are glad to note the development activities undertaken by the Indo-Norwegian Project at Cochin/Ernakulam, Mandapam, Cannanore and Karwar. They hope that the construction of the slipway at Cochin and Jetty at Mandapam will be completed as early as possible. They also hope that other items of work carried over from the Third Supplementary Agreement to the Fourth Supplementary Agreement will be completed without further delay.</p>
19.	3.10	<p>The Committee are glad to note that the training programme launched by the Indo-Norwegian Project is being executed in close collaboration with the Central Institute of Fisheries Operatives and the concerned State Governments. They suggest that the overall requirements of the industry, various Research Institutes, etc. may be kept in view so that the facilities available for training in the Project could be suitably augmented. In this connection, the Committee would like to draw</p>

(1)	(2)	(3)
		<p>the attention of the Government to the recommendation contained in para 2.19 of their Forty-First Report on the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture)—Central Institute of Fisheries Operatives, Ernakulam.</p>
20.	3.11	<p>The Committee hope that the contemplated courses of training for processing technicians, freezing plant mechanics, etc. will be started by the Project as early as possible.</p>
21.	3.15	<p>The Committee feel that adequate publicity and demonstrations can go a long way in bringing home in a visual form the results achieved by the Project to the users. They suggest that the feasibility of bringing out Bulletins, News letters, etc. and articles in various Fisheries Journals on the working of the Project may be considered. They also desire that demonstrations on improved methods of catching, processing, cleaning of the premises, etc. may be arranged by the Project for the benefit of the fishermen and industry.</p>
22.	4.3	<p>The Committee are glad to note that modern distribution and marketing centres for sale of fish have been established by the Indo-Norwegian Project at Alwaye and the Project's premises at Cochin. They also note that the Project intends to start such centres at Ernakulam and Bangalore as well. The Committee would like the Project Authorities to draw up a plan for opening such centres at various places in a phased manner. The Committee would also suggest that the economics of such centres should be worked out so as to ensure that they do not incur any losses. It would be better if these centres are run on no-profit no-loss basis.</p>
23.	4.18	<p>The Committee note that the Indo-Norwegian Project has been authorised to enter the export field in order to utilise fully the capacity of the ice-cum-freezing plant set up by them at Cochin. They also note that initially it was decided that the processing</p>

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and freezing should be confined to the catches of the vessels of the Indo-Norwegian Project alone but subsequently they have been authorised to utilise the catches of the vessels of other Central Government institutes located at Cochin and also to purchase fish from local market. The Committee feel that while it is desirable that the capacity of the ice-cum-freezing plant should be fully utilised, entry into the export market by Indo-Norwegian Project, which is devoted mainly to research and training, is outside its objectives. If, however, Government considers it necessary to export the frozen products processed by the Indo-Norwegian Project on a long-term basis, the Committee suggest that the desirability of putting such operations under a commercial organisation may be considered.

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4.23

The Committee are glad to note that the Indo-Norwegian Project has set up a modern ice-cum-freezing plant at Cochin. They hope that the plant will serve as a model plant and it will be fully utilised for training-cum-demonstration purposes. For this purpose, representatives from the industry should be invited regularly to see the working of the plant so that similar working methods could be adopted by them.

APPENDIX III

(Vide Introduction)

Analysis of Recommendations/Conclusions contained in the Report

I. CLASSIFICATION OF RECOMMENDATIONS

A. Recommendations for improving the Organisation and working:

Serial Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 15, 16, 17, 18, 19, 20, 21, 23 and 24.

B. Recommendations for effecting economy :

Serial Nos. 10, 11, 13, 14 and 22.

II. ANALYSIS OF THE RECOMMENDATIONS DIRECTED TOWARDS ECONOMY

S. No.	S. No. as per summary of recommendation (Appendix II)	Particulars
(1)	(2)	(3)
1.	10	There is a need for regular evaluation of the work of the Indo-Norwegian Project to ensure that the results are commensurate with the expenditure involved.
2.	11	Close liaison and coordination between the Project, Central Marine Fisheries Research Institute and Deep Sea Fishing Organisation as well as other Central and State Institutes should be maintained to avoid any inadvertent duplication and overlapping.
3.	13	It should have been possible for the Government to make some sort of arrangement with the Norwegian Authorities to check up the suitability or otherwise of the vessels received from Norway in the Indian climatic

(1)	(2)	(3)
		condition. This would have resulted in the saving of three wooden vessels which had to be decommissioned as soon as they arrived in India owing to dry rot.
4.	14	The repairs costs being incurred on the vessels of the Indo-Norwegian Project should be kept to the barest minimum.
5.	22	The economics of the marketing centres established by the Indo-Norwegian Project at Alwaye and Project's premises should be worked out so as to ensure that they do not incur any losses.