

MEMORANDUM
FOR THE
EXPENDITURE FINANCE COMMITTEE

ON
FOR V SAGAR SAMPADA
OF
DEPARTMENT OF OCEAN DEVELOPMENT
GOVERNMENT OF INDIA

PROPOSED BY
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
INDIAN COUNCIL OF AGRICULTURAL RESEARCH
COCHIN 682018

JUNE 1985

MEMORANDUM FOR EXPENDITURE FINANCE COMMITTEE

GOVERNMENT OF INDIA
DEPARTMENT OF OCEAN DEVELOPMENT
NEW DELHI

1. Statement of the proposal:

a) Title of the proposal/scheme:

FISHERY AND OCEANOGRAPHIC RESEARCH VESSEL
SAGAR SAMPADA - Memorandum for sanction of essential
manpower for management of the scientific programmes
of the vessel.

b) Description of the proposal/scheme and its objectives:

A. DESCRIPTION

FORV Sagar Sampada - objectives and facilities:

FORV SAGAR SAMPADA was acquired by the Department of Ocean Development, Government of India during the end of the VI Five-Year Plan period for conducting fishery and oceanographic research in the Exclusive Economic Zone of India and beyond. The vessel was built in Denmark and arrived India (Bombay) on 27th December 1984, and reached her home port Cochin on 30th December 1984.

Institutes. A total number of 25 such agencies including national institutes/laboratories, agricultural universities and academic universities are represented in the Working Groups which decide the annual cruise programmes of the vessel and the participation by user agencies. These programmes, after clearance from the ICAR Coordination Committee of Sagar Sampada, are approved at the highest national level by the Cruise Planning and Programme Priority Committee. Upon final approval, the CMFRI is entrusted with the responsibility of executing the scientific programmes, as the nodal agency.

Participation by user agencies:

As already stated, scientists are drawn from various organisations to participate in the cruise programmes of the vessel. The CMFRI contributes the maximum scientific manpower to these programmes. The scientists change from cruise to cruise depending upon the nature of programmes and availability of the scientists away from their other responsibilities to their respective organisations. Therefore, there is no permanent scientific personnel component on board.

Fishing programme management:

Similar to the above, the fishing programme of the vessel is being handled by personnel drawn from the smaller research vessels of CMFRI. These personnel also change from cruise to cruise according to their availability away from their other responsibilities.

Management of sophisticated scientific equipment

The scientific equipments and systems on board Sagar Sampada are highly sophisticated. Operation of these equipments and systems need special technical competence of personnel. These systems should be operated by a set of qualified technical personnel on a permanent basis to gain the maximum advantage of them. Constant change of operative personnel is not conducive to optimum and proper utilisation. The settings which give the right performance cannot be maintained. Besides, the scientists who have been using these equipments and systems have not been trained and they use them based on operation manuals. When defects are noted they are helpless and the equipments cannot be used. It has been fully realised that unless a set of competent technical personnel with necessary qualification and experience operate the scientific equipments and systems on a permanent basis, maximum utilisation cannot be achieved; the data collected would not be comparable; and the equipments might come under repair more frequently than otherwise.

Management of sophisticated fishing systems

The fishing systems and equipments on board are equally sophisticated and need high technical competence for operation. The Master of Sagar Sampada, who is an officer from the Shipping Corporation of India, does not handle fishing operations and, therefore, provision for a separate Fishing Master has been made on board the vessel in the design and construction of the vessel. Change of Fishing Master for every cruise again leads to problems of management of controls on the fishing bridge. Any misjudgement might lead to serious losses of fishing equipment and gear. Therefore, the fishing controls of the bridge should be handled by a qualified and experienced Fishing Master on a permanent basis.

Fishing deck management:

Any vessel meant for fishing should have fishing hands to assist in the fishing operations on the deck side. Being a large vessel with heavy and modern fishing gear and accessories, the fishing hands should have necessary experience in handling such gear and also the fish catch.

Management of fishing gear:

The fishing gear on board are unique and meant for varied types of fishing. A qualified and experienced fishing gear technician on board is essential to manage the gear while in operation and maintain them while not in use.

Administrative and logistic support:

Management of the scientific programmes of Sagar Sampada requires a lot of administrative and logistic support from the shore. Although, as the nodal agency, the CMFRI has taken up this responsibility, there have been no addition to the scientific, technical, ministerial and supporting staff on account of Sagar Sampada. Since the vessel is a national facility carrying out a national programme, the CMFRI has stretched the responsibilities of the persons concerned to the maximum. But it has been realised that for maximum utilisation of this national facility, there should be the required team of personnel to provide the logistic and administrative support. The responsibilities to be discharged in this connection are enumerated hereunder:

I. PROGRAMME PLANNING

1. Planning draft cruise programme of FORV Sagar Sampada on

annual basis by calling for programmes from various Divisions of CMFRI, from CIPT and CLFE and consolidating the same; preparation of draft cruise programme with details of ports of Embarkation/Disembarkation, EPD and ETA, Stations and disciplines, cruise track etc.

2. Organising meeting of Working Groups I (Fisheries) and II (Oceanography); deciding the interested user agencies and their programmes; Modifying the draft cruise programme with the above interests; Finalisation of Cruise programme; Minutes of discussions at the Working Groups.
3. Preparation of papers with cruise programme to ICAR coordination committee.
4. Follow up with ICAR coordination committee and National cruise planning and programme priorities committee and receipt of approved programme; Incorporation of changes suggested by above committees and preparation of Final cruise programmes of FORV Sagar Sampada on annual basis.
5. Intimate all user agencies of the approved programme and call for nomination of scientists and detailed programme.

II. PROGRAMME IMPLEMENTATION

6. Intimation of programmes to concerned agencies (Shipping Corporation of India; Master of Vessel; Shipping & Clearing Agents; All organisations and user agencies concerned with implementation of programme; Port/MMD/Customs Departments). These programmes are periodical such as overall Annual programme, Quarterly tentative programme; Individual cruise programme; modifications of any of the above according to operational problems. All these exercises are to be done on time to keep the vessel's sailing on date to avoid stay at port.
7. Manpower planning for the programme which is most essential so that all available berths for scientists and fishing hands are occupied fully in every cruise.
8. Issue of sailing orders.

III. PORT & CUSTOMS CLEARANCE

9. FORV Sagar Sampada is a foreign-going vessel. Participation of scientists is subject to MMD/Customs clearance at

points of embarkation and disembarkation. Necessary documents have to be prepared and submitted to the concerned departments and Agents.

10. For the same reason as above, all scientific equipments to be taken on board will have to be got cleared by the customs and the details have to be obtained from the scientists from all user organisations, consolidated and submitted for clearance at embarkation and disembarkation.

IV. LIAISON WITH OTHER AGENCIES

11. Being a national programme on board the national facility, the needs of research of the approved user agencies have to be taken into account and arranged for implementation. National Institutes, central organisations, Academic Universities, and Agricultural Universities are the major participants and liaison work is involved with Head of Departments, vice-chancellors and concerned scientists.
12. Liaison with Shipping Corporation of India and their Agents forms a very important part of the scientific management of the programmes.
13. Since Port, MMD and Customs Departments have to be approached on several occasions, good liaison work is essential.

V. SHIP-SHORE COMMUNICATION

14. The vessel has to be contacted regularly twice a day for sending/receiving messages; these have to be recorded and passed on to concerned Officers for further action wherever necessary.

VI. REPORTS & PUBLICATIONS

15. Receipt of cruise reports, scientific reports, equipment performance reports etc. from the cruise leader and individual scientists; analysis of reports for further action; follow-up action on reports; storage of reports.
16. Preparation and submission of periodical reports, such as monthly, quarterly, half-yearly and annual reports for submission to ICAR/DOD.

17. Printing and publication of Reports and scientific/technical publications.
18. Copies of all publications arising from the work of FORV Sagar Sampada have to be acquired and maintained.

VII. PREPARATION OF CHARTS

19. Preparation of cruise charts to go with the cruise programmes.
20. Preparation of performance charts for publication of Reports and scientific papers.
21. Preparation of Fishing charts based on results of FORV Sagar Sampada.
22. Preparation of Oceanographic charts/atlasses based on results.

VIII. MANAGEMENT OF FIVE-YEAR SPARES

23. The vessel has brought in Five-year scientific spares. The utilisation and replacement of these spares should be properly accounted for.
24. Five-year spares for ship's machinery and equipment have to be managed properly. These are under bonded storage with the Central Warehousing Corporation's Public-bonded Central Warehouse. Retrieval of spares and supply to vessel has to be monitored.

IX. MANAGEMENT OF FISHING GEAR STORES

25. Additional fishing gears, spare webbings and tackles, otter boards etc. have been brought by the vessel. These are also under bonded storage as at 24 above. These have to be properly accounted for.

X. PROCUREMENT/SUPPLY OF STORES TO VESSEL

26. Requests for essential/^{scientific} stores for use on board the vessel are frequently received from cruise leader and participating scientists. Apart from regular requests, intends are received over RT also with

requests that such stores should be delivered at the next port of call for use for on-board work. Although scientific equipments have been provided on board, supply of other essential stores and minor equipments has become necessary. The D.O.D has made available necessary funds for such purpose. These stores have to be procured on priority basis and supplied to the vessel. Import of equipments for Sagar Sampada is also to be attended to.

27. Appropriate Stores Registers for all equipments and stores on board have to be maintained. So also procurement/delivery have to be registered.

XI. REPAIRS TO SCIENTIFIC EQUIPMENTS/FISHING GEAR

28. Maintenance works and repairs to scientific equipments on board have to be arranged and got carried out by competent agencies. The CMFRI does not have an Instrumentation Division and, therefore, all works have to be got done by outside agencies observing regular procedures.
29. Sometimes, very urgent minor works on the vessel/its machinery have to be got done for better performance of the vessel. Although the Shipping Corporation of India is responsible for maintenance and repairs to vessel, such minor-items have to be got done locally and urgently for efficient management of the programmes.
30. Repairs to fishing gear and accessories have to be got done almost at the end of every cruise.

XII. DATA MANAGEMENT

31. FORV Sagar Sampada is equipped with the most modern computer systems for automatic recording of primary data relating to several disciplines and for subsequent analysis. Primary data from all scientific systems have to be safeguarded and kept in custody at the CMFRI.
32. Specific data required by the user agencies, based on earlier arrangement, have to be duplicated and sent to them.
33. All computer data in magnetic tapes and print-outs have to be maintained appropriately.

XIII. MANAGEMENT OF SCIENTIFIC SAMPLES

34. At the end of every cruise, enormous amount of scientific samples would be coming in. These will relate to fish/crustacean/molluscan samples, plankton samples, water samples etc. These will have to be appropriately stored for further analysis.
35. Expert groups for analysis and reporting on these samples will have to be identified and the works entrusted to them. The report have to be incorporated with Technical/Scientific Reports of the vessel.
36. Samples of taxonomic significance will have to be dealt with appropriately. For the first time we have the vessel operating in deeper waters upto 1000 m and it is expected that species of several groups hitherto unknown from the region may turn-up in the collections. It is essential to take care of this material.

XIV. DISPOSAL OF FISH CATCH

37. The vessel has 60m³ frozen storage capacity and quality fish caught during the cruises have to be stored on board and disposed of after meeting the requirements of scientific sampling. This involves accounting for such quantities brought ashore and disposal.
38. Procedures have to be developed and followed in the disposal of catch and accounts have to be rendered to ICAR/DOD.

XV. ADMINISTRATION

39. To manage all the items 1-38 listed above, a special administrative effort is required. The accounts on the vessel has to be maintained separately for submission to ICAR for reimbursement from DOD. Routine administration, budget, establishment, stores, audit and accounts works have to be attended to.

Vehicle

There is also the need for a Station Wagon for transportation

of scientists and special equipments to and from the vessel and for facilitating movements of scientists and other staff connected with Sagar Sampada programme on official work.

B. OBJECTIVES

The ultimate OBJECTIVES to be achieved by this proposal are:

- A) Acquisition of fishery resources data through appropriate use and maintenance of the fish finding and fishing systems on board Sagar Sampada by providing required manpower on the operational side;
- B) Acquisition of oceanographic and meteorological data for understanding fish distribution and migration through appropriate use and maintenance of the data collection systems by providing required manpower on the operational side;
- C) Upkeep and maintenance of acoustic, instrumentation and computer systems on board FORV Sagar Sampada; and
- D) Management of the scientific programmes of the vessel by providing technical and administrative manpower.

C. THE PROPOSAL

Summing up the description and objectives of the proposal, it is stated that certain complement of permanent scientific, technical, ministerial and supporting staff exclusively for FORV Sagar Sampada is essential in order that the scientific programmes of the vessel as per national priorities and objective can be fulfilled, aside the scientists

drawn from various organisations for participation in the cruise programmes for specific research studies. More pointedly, this proposal is for sanction of posts as per details given below for

- i) creation of FORV Sagar Sampada Cell at CMFRI to provide management and administrative support for the scientific programmes of the vessel,
- ii) provision of essential technical support for the operation and maintenance of the sophisticated scientific equipments on board, and
- iii) provision of essential manpower for handling the fishing operations of the vessel,

as also for

- iv) sanction of a vehicle for transportation of scientists and equipments in connection with Sagar Sampada's scientific programmes.

FORV Sagar Sampada has been acquired at a cost of about Rs.18 crores. The vessel is being maintained by the Shipping Corporation of India. The running cost of the vessel is to the tune of Rs.2.5 crores per annum. At this high cost, the maximum benefits should be obtained of the vessel. This can be done only by proper management of the scientific programmes of the vessel for which the essential posts required are covered under this proposal and are given below:

Number of posts:

i) FORV Cell

| <u>S.No.</u> | <u>Name of post</u> | <u>Pay-scale (Rs.)</u> | <u>No. required</u> |
|---|--|------------------------|---------------------|
| 1. | Scientist S-3 | 1500-2000 | 1 |
| 2. | Technical Officer T-6 | 700-1300 | 2 |
| 3. | Technical Assistant T.II.3 | 425-700 | 4 |
| 4. | Radio Telephone Operator T-2 | 330-560 | 1 |
| 5. | Assistant Administrative Officer | 650-1200 | 1 |
| 6. | Superintendent | 550-900 | 2 |
| 7. | Assistant | 425-700 | 3 |
| 8. | Stenographer | 425-700 | 1 |
| 9. | Jr. Stenographer | 330-560 | 1 |
| 10. | Jr. Clerk | 260-400 | 4 |
| 11. | Motor Driver | 260-430 | 1 |
| 12. | Messenger/Helper | 196-232 | 3 |
| <u>ii) Technical Officers on board</u> | | | |
| 13. | Acoustics Engineer T-7 <i>Scientist S-2</i> | 1100-1600 | 1 |
| 14. | Systems Engineer T-7 <i>Sr. Tech. Asst. T-4</i> | 1100-1600 | 1 3 |
| 15. | Instrumentation Engineer T-7 <i>Tech. Asst. T-11-3</i> | 1100-1600 | 1 3 |
| <u>iii) Fishing Officers and staff on board</u> | | | |
| 16. | Fishing Master (Senior) T-8 | 1300-1700 | 1 |
| 17. | Fishing Master (Junior) T-6 | 700-1300 | 1 |
| 18. | Fishing Gear Technician T-6 | 700-1300 | 1 |
| 19. | Fishing Hand | 425-700 | 9 |

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c) Justification of the proposal/scheme and what alternatives have been considered:

FORV Sagar Sampada is a unique national facility acquired at a total cost (vessel and scientific equipments) of about Rs.18 crores for fishery and oceanographic work. The vessel is expected to survey and estimate the fishery resources of the EEZ of the country extending over an area of about 2 million sq.km, along with studies on oceanographic and meteorological conditions which influence the distribution and migration of the resources, to facilitate their exploitation for augmenting food production of the country. The vessel is also expected to explore and estimate the fishery resources outside the EEZ, particularly the oceanic tuna and squid resources in the high seas and the Antarctic krill resources in the Southern Ocean. Such an important mandate to the vessel envisages precise organisation and execution of the programmes in time and optimal functioning of all scientific and fishing equipments and systems on board. The above requirement necessitates provision of an adequate exclusive complement of staff on a permanent basis to manage the responsibilities, in addition to the scientists who work on specific research programmes in the cruises of the vessel. The posts required with justification are given in the following statement.

Statement showing the details of posts required for managing the scientific programmes of FORV SAGAR SAMPADA during the VII Plan with justification

| S.No. | Category of post | Scale of pay (Rs) | Existing posts | No. required in VII Plan | Justification for new posts |
|--------------------------------|-------------------------|-------------------|----------------|--------------------------|--|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <u>FORV SAGAR SAMPADA CELL</u> | | | | | |
| 1. | Scientist S-3 | 1500-2000 | Nil | 1 | This is a management post. He will be responsible for the entire management of FORV Sagar Sampada's scientific programme under the guidance and supervision of Director CMFRI. The responsibilities would include liaison and coordination among user agencies; liaison with Shipping Corporation of India; organisation of Working Group meetings; cruise programme planning and execution; reports and publications; management of FORV Cell. |
| 2. | Tech.Officer (T-6) | 700-1300 | Nil | 2 | <u>1 post</u> : Responsible for cruise programme preparation and finalisation after Working Group meeting; implementation and monitoring of programmes; responsible for all scientific samples and arrangements for analysis; primary data maintenance; participation in cruise programmes. <u>1 post</u> : Responsible for cruise reports, technical reports and publications; scientific stores of vessel and equipments; participation in cruise programmes. |
| 3. | Tech.Assistant (T-II.3) | 425-700 | Nil | 4 | <u>1 post</u> : Draftsman; preparation of charts for cruise programmes, reports and publications; preparation of fishery maps and oceanographic atlases. |

| 1 | 2 | 3 | 4 | 5 | 6 |
|----|---|---------|-----|---|---|
| | | | | | <p><u>1 post</u>: Artist; to provide art assistance in preparation of charts and illustrations for reports and publications of FORV Sagar Sampada results.</p> <p><u>1 post</u>: Assistance in handling all scientific samples, their sorting and maintenance; disposal of fish catch; participation in cruise programmes.</p> <p><u>1 post</u>: Assistance in cruise planning, reports and publications; scientific stores and equipments maintenance; participation in cruise programmes.</p> |
| 4. | Radio Telephone Operator (T-2) | 330-560 | Nil | 1 | <u>1 post</u> : Transmission and receipt of Radio Telephone messages from shore station; records maintenance. |
| 5. | Motor Driver (Auxillary) | 260-430 | Nil | 1 | <u>1 post</u> : To drive the vehicle for Sagar Sampada works. |
| 6. | Messenger/Helper SS.I(Supporting Staff) | 196-232 | Nil | 3 | <p><u>2 posts of Helper</u>: To help in handling stores items to and fro Sagar Sampada and also in stores office.</p> <p><u>1 post of Messenger</u>: To provide supporting assistance to FORV Sagar Sampada Cell.</p> |

MINISTERIAL POSTS OF FORV CELL

| | | | | | |
|----|--------------------|----------|-----|---|--|
| 7. | Asst. Adm. Officer | 650-1200 | Nil | 1 | <p>CMFRI has been entrusted with the responsibility of coordinating the work in respect of all User Agencies, numbering about 30 national organisations and Universities. The administrative work involved in reaching the schedule of cruise programme to all the above agencies in time, processing cruise reports and follow up, liaison with other organisations such as MMT, Shipping Corporation of India, Shipping Agents, Customs department, Port Authorities for getting clearance for the participants,</p> |
|----|--------------------|----------|-----|---|--|

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
|---|---|---|---|---|---|

to maintain proper records of the cruise, and correspondence with the above agencies is enormous. In addition, procurement of various Stores and spares for the Scientific programmes - both indigenous and import, will have to be arranged. The Asst. Adm. Officer will have overall responsibility for the management of all the administrative work in the spheres outlined above. He would also, in addition, look after personnel management of all the staff including scientific and technical staff.

8. Superintendent 550-900 Nil 2 1 post (Operations): One Supdt. will assist the Asst. Adm. Officer in planning and managing the administrative set up. He will assist the A.A.O. to get the desired results in Key functional areas like follow up with outside organisations, communication with user agencies etc. He will also pay special attention to the messages received from the ship while it is on cruise and arrange proper follow up on it. He will essentially be a person who reaches out to user agencies, outside organisations and scientists & technical staff going on board the vessel. He will also be involved in all the training programmes and follow up etc.
- 1 post (Admn): The other Supdt. will look after all the procurement and day-to-day administration of the vessel cell like salary disbursement, payment of allowances, and maintenance of all relevant records & statistics thereof like cash books, stores, registers etc.
9. Assistant 425-700 Nil 3 1 post: One of the Assistants will report to the Supdt. (Operations) and will be involved in all such work as liaison with agencies like SCI, Shipping Agents, Port, Customs etc. He will also assist the Supdt. in successful operation of training schemes of the cell.
- 1 post: The other Assistant will assist the Supdt. (Adm.). He will be specially in charge of all procurement and effective follow up on orders placed etc. He will also be involved in all the day to-day work of the cell.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
|---|---|---|---|---|---|

1 post: He will be attached to the Audit wing to enable pre-audit of all the bills relating to the ship cell. He will also prepare necessary statement of expenditure etc. to be presented to the local Audit.

| | | | | | |
|----------------------|---------|-----|---|------------|--|
| 10. Stenographer | 425-700 | Nil | 1 | } } } } | The Stenographers will be pooled and render necessary secretarial assistance to the Snior Scientist-in-charge and Engineers. |
| 11. Jr. Stenographer | 330-560 | Nil | 1 | | |

| | | | | | |
|-------------------|---------|-----|---|--|---|
| 12. Junior Clerks | 260-400 | Nil | 4 | | <u>2 posts</u> : 2 Jr. Clerks will be attached to the operation side. On the operative side they will render assistance in the form of preparing cruise schedules (i.e. typing, despatch etc.), going over to agencies like MMD, Port etc. for getting early clearance for scientists & other work relating to the operations side. |
|-------------------|---------|-----|---|--|---|

2 posts: 2 Jr. Clerks of the Admn. side will render assistance in the preparation of bills, maintenance of stock ledgers typing etc.

Amended as per page 13 ↖

TECHNICAL OFFICERS ON BOARD

| | | | | | |
|-----------------------------|-----------|-----|---|--|--|
| 13. Acoustic Engineer (T-7) | 1100-1600 | Nil | 1 | | <u>1 post</u> : Responsible for operation and maintenance of all acoustic and electronic equipments on board such as sonar, echosounders, net sonde and transducers; collection of all acoustic data for fish biomass estimation and related parameters; maintenance of acoustic spares and echograms; participation in all cruise programmes. |
| 14. Systems Engineer (T-7) | 1100-1600 | Nil | 1 | | <u>1 post</u> : Responsible for operation and maintenance of all computer installations in the different laboratories-EDP Room, Acoustic Detection Room, Met. Office, Dry Chemical Lab and Dry Fish Lab; Development of software/programmes; hardware maintenance; data collection and maintenance; participation in all cruise programmes. |

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----|--------------------------------|-----------|-----|---|--|
| 15. | Instrumentation Engineer (T-7) | 1100-1600 | Nil | 1 | 1 post: Responsible for operation and maintenance of all scientific equipments, on board including collection and analytical equipments; scientific winches; aquarium system; electronic balances; Collection and maintenance of data; participation in all cruise programmes. |

FISHING OFFICERS & STAFF ON BOARD

| | | | | | |
|-----|-------------------------------|-----------|-----|---|---|
| 16. | Fishing Master (Senior) (T-8) | 1300-1700 | Nil | 1 | 1 post: Responsible for all fishing operations of Sagar Sampada; control of Fishing Bridge and liaison with Master of vessel in all fishing operations; in-charge of all fishing gear, accessories and spares of Sagar Sampada; assistance in preparation of fishery maps; storage of fish; overall in charge of members of fishing team. |
| 17. | Fishing Master (Junior) (T-6) | 700-1300 | Nil | 1 | 1 post: Responsible for management of fishing deck operations during fishing; feedback to Fishing Master on bridge; assistance to Fishing Master (Senior) in all matters concerning fishing. |
| 18. | Fishing Gear Technician (T-6) | 700-1300 | Nil | 1 | 1 post: Responsible for rigging of fishing gear for all fishing operations; designs and further development of fishing gear for Sagar Sampada; maintenance of all fishing gear, accessories and spares of vessel. |
| 19. | Fishing Hand (Auxillary) | 425-700 | Nil | 9 | 9 posts: Assistance in all fishing operations and scientific winch operations; handling of fish catch and samples; cleanliness of fishing deck; net-mending. The Danish Fishing Gear Expert has recommended 1½ crew for fishing operations as per norms applicable to such large fishing vessels. The fishing hand requirement for each cruise is 6. Therefore, 9 fishing hand posts have been included to make 1½ crew which would include leave reserve also. |

Justification for the proposal has been given in the preceding statement, post-wise, under column 6. All posts are essential for the proper and maximum utilisation of the Research Vessel FORV Sagar Sampada and to derive the anticipated benefits from the vessel.

Besides posts, a vehicle (Station Wagon) for transportation purposes in connection with Sagar Sampada programme is essential. The vehicle will be used at Cochin and also for transportation of scientists and special equipments and stores to the ports of embarkation/disembarkation of the vessel as per cruise programme.

Since January 1985 (vessel arrived Cochin on 30.12.1984), the responsibilities proposed here have been managed by make-shift and temporary arrangements by CMFRI. This has been found to be totally inadequate in terms of actual requirements for proper management of the scientific programmes of the vessel. Therefore, there is no alternative available for consideration to the proposal made here.

- d) Description of the manner in which the proposal/scheme is proposed to be implemented including mention of the agency through which the scheme will be executed

The proposal will be taken up as a Scheme of the Department of Ocean Development, Government of India to be implemented by the Indian Council of Agricultural Research at the Central Marine Fisheries Research Institute, Cochin.

- e) Schedule of programme and target date of completion:

The scheme will be implemented from current year (1985-86) upto end of VII Plan for the present. A research vessel of

Sagar Sampada type is good for over 20 years and the scheme will have to be continued.

Recruitment to posts will be completed during 1985-86.

2. Financial implications of the proposal

- a) Nature of the scheme: Plan - Centrally sponsored
b) Total outlay (recurring and non-recurring separately), its broad details and its year-wise phasing:

| | | |
|---------------------|---|---------------------|
| Total Recurring | : | Rs.49,97,000 |
| Total Non-recurring | : | Rs. 1,50,000 |
| Grand Total | : | <u>Rs.51,47,000</u> |

→ amended to
53,27,000

For details please see Annexure - I

- c) (i) Plan allocation, if a Plan Scheme:

Rs.51,47,000

- (ii) Budget provision in the current financial year; if no budget provision exists, how is the expenditure proposed to be met:

This is a new scheme and, therefore, no budget provision exists. Budget estimate of Rs.7,01,000 is proposed here for 1985-86 (October 1985 - March 1986).

- d) Foreign exchange component of the outlay and how it is proposed to be met

Outlay for training abroad in special areas is Rs.2 lakhs. Part of this will be in Foreign Exchange.

- e) Component of grant, loan and subsidy, if any, in the total outlay involved and their proposed terms:

NIL

f) Number of posts, their pay scales and the basis adopted for staffing:

Details of posts and pay scales already given under item 1 (o) "Justification for the proposal/scheme and what alternatives have been considered". Total number of posts: 39.

Basis of staffing:

Since the competency requirements for Sagar Sampada are special with reference to sophisticated equipments and systems, the following recruitment procedure is proposed to be adopted:

- 1) Scientist S-3 (1 post): A suitable scientist from CMERI will be seconded to this post.
- 2) Acoustics Engineer (T-7) |
Systems Engineer (T-7) | By Direct Recruitment
Instrumentation |
Engineer (T-7) |
- 3) Fishing Master(Senior) (T-8) |
Fishing Master (Junior)(T-6) | By Direct Recruitment
Fishing Gear |
Technician (T-6) |
Fishing Hands - 9 posts |
- 4) Technical Officer (T-6) - 2 posts | By promotion/D.R.
Technical Assistant - 4 posts | as per ICAR Rules
(T-II.3) | (Draftsman by D.R.)
- 5) Radio Telephone operator - By D.R.
- 6) Ministerial, supporting - As per ICAR rules
and other auxillary posts

- g) Broad details of construction works, their justification and basis of estimates:

NIL

- h) Requirements of stores and equipment together with justification and costs

NIL under the present scheme.

2. (i) Achievement/return expected and other economic implication, if any:

The Fishery and Oceanographic Research Vessel SAGAR SAMPADA has been recently acquired by the Department of Ocean Development, Govt. of India for the exploration and assessment of the marine fishery resources in the 2 million sq.km area of the Exclusive Economic Zone of India. Besides, the vessel is also expected to explore the high seas of the Indian Ocean and the Southern Ocean as far south as 60°S latitude for the oceanic tuna and squid resources and the Antarctic Krill resources.

The above objectives can be fulfilled only if the required qualified manpower is made available to the vessel for the essential continued operations of equipments. While the vessel is manned on the navigational and propulsion side by the Shipping Corporation of India and on the scientific programme side by the scientists drawn from various national organisations and Universities, there exist two important gaps. These relate to technical manpower for operation and maintenance of the sophisticated scientific equipments and systems on board and fishing manpower for control and execution of all fishing operations. Besides, a third component for programme planning,

execution and management also is essential. The present proposal aims at filling up these gaps.

By approval of the proposal, the objectives of this unique Research Vessel can be achieved in full measure, as the vessel would have all essential manpower requirements. The resources data which would be obtained from the scientific programmes of the vessel would help in planning fisheries development programmes of the country.

3. a) Comments, if any, of the Planning Commission:

The proposal is submitted for the first time.

b) Comments, if any, of other Ministries/Departments which may have been consulted:

The proposal is submitted for the first time and no consultation has been had with other Ministries/Departments.

4. Supplementary information, if any:

It will be necessary to arrange for advanced training of some of the personnel of this scheme for short durations abroad in specific areas such as:

- a) Deep sea trawling and tuna longlining
- b) Instrumentation engineering
- c) Systems engineering (computer hardware/software)
- d) Underwater acoustics (scientific echosounders, QD-integrator and sonar systems)

For (a) above, the alternative would be to get expert Fishing Masters from abroad with requisite experience to train Indian fishing masters on board Sagar Sampada.

The short-term training programmes may be arranged under foreign aid programmes that Department of Ocean Development may conclude during the VII Plan period or at the expense of Government of India. In the case of later arrangement, a provision for Rs.2 lakhs has been made in the proposal.

5. Points on which decision/sanctions are required:

It is requested that the EFC Memorandum for provision of essential manpower for management of the scientific programmes of FORV Sagar Sampada may be approved.

It is also requested that provision for a Station Wagon for road transportation of scientists and stores in connection with Sagar Sampada programmes may also be approved.

The above approvals are essential for the optimum utilization and management of FORV Sagar Sampada for the scientific programmes. As compared to the capital investment of the vessel (about Rs.18 crores) and the running and maintenance cost (Rs.2.5 crores per annum) the financial outlay of this proposal, totalling to Rs.51,47,000 for a five-year period (VII Plan) would form a very small component in the total expenditure on the vessel, but is very essential to achieve the maximum benefits.