



# **Report on the utilization of shipping (FAO)**

*by*  
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## INTRODUCTION

1. A study of the problems arising from the use of ships by organizations of the UN system was included in the work programme of the JIU for 1972.
2. Over the years the UN organizations have come to acquire or control considerable numbers of ships in connexion with their activities in the field of technical assistance and scientific survey and research. Preliminary enquiries led to the conclusion that the large majority of these ships concern FAO in their activities for the promotion of fisheries development. The responsibility for the latter rests with the FAO Department of Fisheries. Consequently the present report is confined to the management of ships by that Department.
3. Large sums of money are devoted to FAO's operations involving the use of shipping facilities, first in the procurement of the vessels and then in their proper maintenance. The number of vessels used is 128 - UNDP has sixty-eight vessels (combination research/fishing; trawler/purse seiner); forty-two are Government vessels; eighteen are chartered vessels (Annex I). Of the sixty-eight UNDP vessels, sixty-three are engaged in operational field projects and five are laid up in Panama (Annex II). The annual running cost of a vessel ranges from 50 to 65 per cent of its capital cost. The running cost includes:
  - (a) maintenance and repair (hull, engine, equipment);
  - (b) other operating expenses (fuel, ice, provisions, wharfage, miscellaneous);
  - (c) fixed charges (insurance, taxes, interest and depreciation); and
  - (d) payment of the crew.
4. The total cost of all Field Projects of the Department of Fisheries - operational and approved - is US\$ 135 million. The UNDP contribution amounts to US\$ 60 million, and the Government contributions to US\$ 66 million, while UNICEF, FFHC (Freedom From Hunger Campaign) and some other organizations cover approximately US\$ 9 million. The Regular Programme budget of the Department for 1972 is US\$ 6,500,000. The main objective of the Regular Programme is to give logistic support to the Field Projects.
5. The importance to developing countries of fisheries projects in which ships are engaged and the need for a long-range programme for rational exploitation of the world's fisheries, are obvious. The efficient utilization, management and maintenance of the shipping fleet of UNDP-FAO which is employed in various ways for promoting the development of fisheries thus acquires crucial importance.
6. In the course of their study the Inspectors gave attention to the main problems of management and how they are being tackled, including, inter alia:
  - (a) whether there is a proper, efficient and economical system of procurement of vessels needed in the fisheries operation and whether the present system is conducive to the expeditious operation of fisheries projects;

- (b) whether there is a rational post-operation disposal of vessels;
- (c) whether there is efficient utilization and maintenance of the ships; and
- (d) what further arrangements or improvements could be made in the present managerial system.

## STATEMENT OF PROBLEMS

7. Basically the problems faced by FAO with regard to these ships involve on the one hand management and on the other financing. The management problems arise from the fact that: (a) the procurement, maintenance and utilization of ships involve operations in a very specialized field; (b) the ships are of different types and sizes, are scattered all over the world, and operate for different purposes in different environmental conditions and under different flags; and (c) half the ships belong to UNDP and the other half are Government ships managed by FAO with different degrees of "authority". The financing problems arise from the fact that in many project documents proper attention has not been given to the real expenses for running vessels, and to eliminating time-consuming administrative procedures. Even if FAO were a purely commercial company, the management of as many as 128 ships in these conditions would not be an easy matter; the fact that it is not so immensely increases the problems of management. Many of the difficulties facing FAO are those of an international organization trying to manage a fleet of vessels.

## PROCUREMENT AND DISPOSAL

8. Vessels procured by FAO are (Annexes I, II and III):

- (a) chartered vessels;
- (b) vessels provided by governments as counterpart obligation (the master fisherman alone being provided by FAO);
- (c) vessels provided by UNDP (FAO normally appoints the captain and in some instances the engineer, while the Government pays for the crew, fuel, etc.);
- (d) vessels provided by UNDP with FAO having complete control of the vessel and paying all the operational costs.

9. The above enumeration of the types of vessels is itself indicative of the fact that there could not be a uniform system of procurement. Strictly speaking, only the vessels referred to in (a), (c) and (d) above involve procurement.

10. Under the present arrangements, the UNDP-FAO vessels are procured in two ways: by public tender and by direct buying. The majority of the vessels were procured by public tender and very few by direct buying. FAO does not normally buy second-hand vessels. Only in emergency cases has there been direct buying. The processes relating to procurement of vessels by public tender takes usually from a minimum of six months for an already standard-built unit to thirty-six months for a specially-built vessel (see Annex I).

11. Where ships have been specially built there has often been considerable delay in getting them in position, and the completion of some projects has been delayed.

12. The delays are due to the fact that:

- (a) tenders cannot be invited until after the signing of the project document; and
- (b) sometimes low-bidding shipyards in which ships are constructed have longer delivery times than more expensive bidders and in some cases they have not been able to meet deadlines for delivery for a variety of reasons.

13. Delays resulting from the fact that the FAO Department of Fisheries in the past was trying to obtain a consensus of all technical branches, Project Manager and master fisherman before asking the Administrative Services Division to purchase, can be avoided in the future by endeavouring to purchase vessels of standard types and only modifying them as necessary for specific project requirements. The decision on such modifications should be entrusted to a reorganized and strengthened unit within the Department of Fisheries which should be able to take decisions before projects become operational.

14. Some delay in the procurement of ships which are to be constructed seems inevitable, but every effort should be made to minimize the delay. It is understandable that no firm legal commitments regarding the procurement of ships can be made until after the project document has been signed by UNDP, FAO and the Government or Governments concerned. Nevertheless, it should be possible to make greater use of preliminary enquiries from prospective suppliers and/or to invite tenders once the UNDP Governing Council's approval is given, without waiting for signature of the project document.

15. The Inspectors understand that now that FAO has a large number of vessels and FAO's operations in the fisheries field are to continue for many years, procurement of new ships could be greatly reduced if vessels were transferred to new projects. Most of the existing vessels, while basically sound, are however seriously run down due to insufficient maintenance and it is essential that sufficient funds be budgeted for thorough refits and modifications. Possibly there should be established a special revolving fund or suspense account which would facilitate business-like fleet operation.

16. With regard to the disposal of ships, in a few cases the vessels were handed over to the host country after the termination of a project. In other cases the vessels were transferred to new projects. Some small units were written off after completion of the project and were excluded from the official list of units.

17. In special circumstances it may be appropriate to hand over ships to the host country. Such circumstances may arise, for example, when, after the completion of the project, the Government has no possibility of replacing the UNDP vessel by one of its own, thus prejudicing the follow-up of the project and limiting its real value; or in other cases a vessel cannot be usefully transferred to another project and there is the prospect of a long-term lay-up of the ship involving fruitless expenditures on maintenance. However, as a rule, ships should be put to the greatest use for the benefit of the largest number of developing countries.

### MANAGEMENT PROBLEMS

18. In the case of chartered vessels (Annex III) there are very few management problems related directly to the vessels. The list in Annex I makes it clear that where vessels have been chartered they have usually been on the scene of operations in time and there has been no delay in the completion of the projects.

19. In the other cases, the following management problems, all related to the "sea time of the vessel", were identified at the second FAO-UNDP vessel review meeting (1971) (the reasonable operating target to aim at was 200 days at sea per year, particularly in "tropical waters") :

- (a) some governments for financial or other reasons very often do not meet their obligations with regard to the operation and maintenance of vessels according to the plan of operation (project document);
- (b) the officers and crew provided by the governments are often undertrained and poorly paid and have no incentive to go to sea;
- (c) government and other local administrative procedures may delay operations, especially in sanctioning expenditures for stores, equipment and repairs and maintenance;
- (d) repairs and maintenance work at local shipyards is often below the required standard and takes a long time to get done, sometimes months instead of weeks;
- (e) frequently the FAO Project Manager is not given enough authority to operate the vessels efficiently;
- (f) in some cases there are not sufficient research personnel and gear technologists to spend more time on operations at sea;
- (g) problems are encountered regarding spare parts and the lack of standardization;
- (h) problems also arise from poor management of the project.

### REPAIR AND MAINTENANCE

20. Maintenance is a key to efficient management of the FAO-UNDP vessels. Both FAO and UNDP have emphasized this. Nevertheless, it seems that existing administrative practices militate against efficient repair and maintenance of the vessels. With regard to the former, there is divided responsibility between FAO and the recipient Government; and as regards maintenance, where FAO is clearly responsible, there is the problem of administrative procedures preventing timely action. Good repair facilities are usually unavailable in most of the developing countries. The result is unnecessary delay in repairs, increased cost in the operation of the vessels and a loss in their operational time.



21. The Inspectors believe that in this area considerable delegation of authority to the Department of Fisheries is necessary. That Department should be able, on the basis of the maximum possible standardization, to have a ready supply of spare parts, and it should be possible for them to procure these directly within liberal financial limits. Likewise, the Project Manager should be able to procure locally or order from abroad spare parts for his vessel in excess of the monetary limits presently prescribed by FAO, without prior reference to the latter. Regular inspection of the vessels by FAO, with immediate action to be taken in case of emergency, major overhauls, etc. is considered necessary.

#### OTHER MANAGEMENT PROBLEMS

##### Standardization

22. It is agreed that the principle of standardization should be applied as widely as possible. However, the following are limiting factors :

- (a) there is a need for a considerable variety of types and sizes of vessels as they have to carry out many specific and different tasks;
- (b) commercial fishing with an all-purpose vessel is often not practicable; FAO projects have to be served through the use of specialized vessels;
- (c) it is necessary to use vessels more or less similar to those used in the fisheries of the area concerned;
- (d) the consultation required between the Project Manager and the Co-Manager on vessels and equipment leads to a variety of requests for modifications;
- (e) the vessels have to be restricted in size, design, equipment etc. on account of budgetary limitations;
- (f) vessels are usually built by shipyards submitting the lowest tenders;
- (g) often the choice of yards and construction are limited by the need to use certain currencies;
- (h) there are frequent changes in design, material definition of vessels, and equipment and gear, arising from technical progress.

23. Obviously, there are inherent difficulties in carrying this standardization of machinery and equipment very far, but standardization to the maximum extent possible should be attempted, and effect should be given to it by a careful selection of components and equipment at the time of ordering the construction of ships and in stock-piling spare parts.

##### Insurance problems

24. According to the present administrative set-up, the title to the vessel belongs to the Government of the country concerned. There are three systems used at present :

- (a) Government self-insurance;

- (b) Government insurance through a national broker; and
- (c) Government insurance through an international broker with standard vessel coverage; by "standard vessel coverage" is understood the Hull, Protection and Indemnity, and War and Strikes.

The insurance covers the vessel and the counterpart personnel; the FAO personnel has its own insurance system. FAO considers most important that the larger vessels not yet covered by commercial Protection and Indemnity (P and I) insurance to a limit of US\$ 500,000 should have insurance placed by FAO. A proposal has been under discussion for an "umbrella" policy that would cover all liabilities arising from the operation of the vessels.

#### The Fleet Management Unit (FIIF) financing

25. The financing of fleet management in the Department of Fisheries is made, at present, by charging to the projects the amount of man-months spent on them. This method is considered to work unfairly, mainly in cases in which vessels require a major overhaul.

26. The financing of refits and transfers of vessels between projects is also beset with many difficulties. The present contractual and administrative procedures for refits are difficult to follow for several reasons. The main problems are :  
(i) the extent of a refit cannot always be determined before the work starts; (ii) it is, therefore, impracticable, if not impossible, to obtain firm tenders from shipyards; and (iii) wasteful delays leading to increased costs take place because the Department of Fisheries has not sufficient delegated authority to take decisions involving cost during refits and repairs carried out under their technical supervision.

#### UNITED NATIONS FLAG

27. The present situation would be vastly improved if the fleet were owned by UNDP, sail under the UN flag and be entirely managed by FAO. This - according to FAO and UNDP officials - would not only give far greater flexibility in the management of the vessels and increase their average time at sea and their operational efficiency, but would greatly reduce cost.

28. At the present time, titles to the vessels are transferred to the host country. There is a tendency in the Government after using the national flag for one or two years to consider the vessels as national property. This is one of the reason for the considerable delay in the transfer of vessels to new projects, and sometimes the UNDP has no alternative but to leave the ship in the country concerned.

29. The main advantages of the vessels using the UN flag would be as follows :

- (a) after the termination of the project, the vessels would remain UN property; they could be transferred immediately to another project, if necessary;

- (b) at nearly every critical point of management and operation, savings could be effected and efficiency increased. So, vessels with UN flag and operated by FAO would be free to go to the most competent shipyard of the region, saving money and time; it would be easier to cope with problems of repairs and maintenance; general maintenance instructions could be issued by FAO; inspection of the vessels could be made on a continuing basis; and the employment of an internationally recruited crew would be easier.

30. A possible alternative to the use of the UN flag could be the registration of all the UN vessels in only one country. Solution of the problems regarding the flag, fishing rights, nationality of crew, transferring of vessels from project to project, disposal of vessels, etc. would thus be greatly facilitated. It would enable FAO to operate the ships as a fleet.

#### THE "POOL" OF VESSELS

31. UNDP and FAO are thinking more and more in terms of a pool system, which could give the Department of Fisheries maximum flexibility of operation, and in which ships would be used where necessary, according to requirements. This "pool" of vessels would be similar to other pools of transport units operated by some governments, international organizations and private enterprises.

32. A pool of vessels would, according to experts, be the best solution. The real expenditures for managing the vessels would not be less than at present but there could be an important saving through maximum utilization of the sea time of each vessel. In fact, they would be "chartered" units from the pool. The ships could be turned round from one project to another with vessels in the pool flying a single flag.

33. The Inspectors commend the creation of a shipping pool, but such a pool can be efficiently operated only on the basis of medium-term planning of the Department's activities. While recognizing the difficulties of a long-term or even a medium-term projection (or planning), there is no evidence that systematic planning has been seriously attempted so far; and the fact that five ships have been idle in Panama for about a year is evidence at once of lack of planning and of co-ordination between the UNDP and FAO. Serious consideration should be given to the administration and financing of the pool of vessels. It is the opinion of the Inspectors that the financing of the pool of vessels, including the cost of management, should be exclusively a responsibility of the UNDP.

## CONCLUSIONS

34. It is the Inspectors' belief that almost all the problems faced by UNDP and FAO in operating the fleet are due to the difficulty, many years ago and when the fisheries projects started, of foreseeing the great expansion of activities of UNDP-FAO in this field. The big increase of catches in many developing countries is due, in a large measure, to the assistance provided by UNDP-FAO.

35. The Inspectors agree that it is a very difficult task to operate a fleet of more than 100 vessels with different ownerships; this difficulty is even greater as there are different degrees of "authority" in the management of such vessels. The ten to twelve types of units, each of them with different "sea time" and age, and operating in a wide range of projects, make the task no easier.

36. All these difficulties have an adverse effect on the efficient use of funds and make it difficult also to get real value for the money expended.

37. There is no doubt in the mind of the Inspectors that the UNDP-FAO fleet should be operated, as far as possible, on the same lines as a commercial fleet. Many of the problems arising at present are due to the fact that this has not been the case so far.

38. With reference to problems of budget and fleet financing, in some project documents (or plans of operations), the real expenses for running vessels do not appear to have been accurately estimated.

39. The problems that arise in the procurement of vessels are due, in large measure, to the participation of different administrative units of FAO. Good co-ordination of activities and/or delegation of authority are, thereby, sometimes difficult to attain.

40. Chartering ships is expensive and is not always feasible because of the special equipment and specifications necessary for a particular project in a particular area. Whether institution-building or training is involved in a project, direct ownership by UNDP or Government is desirable.

41. It seems clear that many problems faced by the operational unit of the Fisheries Department of FAO are due to the lack of timely and precise specifications for the construction or purchase of vessels. To this lack of precise specifications for the procurement of vessels should be added insufficient supervision by FAO during ship-building.

42. All this has resulted, in some cases, in the delivery of ships to project managers being considerably delayed, in wrong building procedures generating unforeseen problems, and in a considerable lack of standardization.

43. It is also the opinion of the Inspectors that UNDP should examine the situation very carefully before considering vessels as a counterpart obligation; experience has shown that, even with the goodwill of the Government concerned, managerial problems are sometimes insurmountable.

44. It is the opinion of the Inspectors that the project document should be flexible enough to give FAO authority to charter, buy or build vessels according to the nature of the field projects.

45. The Inspectors appreciate the difficulties of reaching an advanced degree of standardization in fishing vessels. There is need for a variety of types and sizes of vessels, as they have to carry out many specific and different tasks. Commercial fishing and training fishing with an all-purpose vessel is often not practicable. However, from the technical, operational and administrative point of view the advantages of having the largest measure of standardization cannot be over emphasized.

46. With reference to the disposal of vessels, no country should be allowed, unless exceptionally, to retain ownership. The possibility of including - as an interim solution until the UN flag problem is solved - in the project document a clause allowing FAO to register the vessel in another country after the termination of a project, should be studied.

47. The management problems could be due to the lack of fulfilment of the counterpart obligation, to a poor planning operation and, in some projects, to managerial deficiencies. It is the belief of the Inspectors that good planning should resolve the prospective problems, giving the necessary flexibility of operation to the agency concerned, in this case FAO. It is a fact that project managers, being highly qualified from the scientific or technical point of view are not, all of them, equally qualified in administrative matters. Many projects suffer considerably for this reason. The Inspectors recognize this to be a problem common to all UNDP field projects. When the project involves, as an essential component, the operation of vessels, the lack of managerial aptitudes can have a serious adverse effect. The possibility of appointing in some suitable cases a deputy Project Manager should be considered.

48. The liability of both UNDP and FAO towards a third party or the crew is very great. This liability is independent of the flag and country of registration. For this reason, the Inspectors believe that the problems connected with the insurance of vessels need urgent attention. The idea of an "umbrella" insurance policy seems good.

49. As a matter of principle, all insurance should be a UNDP-FAO responsibility. Until the "umbrella" insurance policy system is studied and applied, the project document should provide for insurance acceptable according to international standards.

50. The Inspectors agree completely with UNDP and FAO officials about the advantages of having the whole fleet registered only in one country. In this respect, the Inspectors believe that an international registry of shipping should be urged;

meanwhile, the possibility of the UNDP fleet sailing on the high seas under only the UN flag should be studied.

51. They agree also, that there are many advantages in having the UNDP-FAO fisheries projects use only vessels owned by UNDP and managed by FAO. The idea of having a "pool of vessels" is a good one; pools of transport units in general have worked in a very efficient way. It is recognized that the management of a pool of vessels is not an easy task. Many technical, operational and administrative problems have to be solved. The fleet operational unit of FAO should be adequately reinforced and given the necessary authority for the new task.

## RECOMMENDATIONS

### To UNDP and FAO

1. UNDP and FAO should formulate a tentative medium-term Fisheries Programme in order to ensure a reasonable estimate of future shipping requirements.
2. The project document should give FAO the necessary flexibility to deal with the counterpart obligation in case it is not fulfilled.
3. The project document should include all real expenses for running the vessels.
4. The management of the UNDP-FAO fleet should be improved by clearly defining the authority of FAO in all cases of operational expenses included in the project document.
5. The project document should give the Project Manager enough authority to do his job in the way he considers most efficient, with reference to operation of the vessel, including repairs and maintenance.
6. UNDP and FAO should give serious consideration to the possibility of appointing - in suitable cases - a deputy Project Manager.
7. Project documents should not as a rule include vessels as counterpart obligations.
8. UNDP and FAO should find an early solution to the present liability problem by means of an "umbrella" insurance policy or similar device.
9. UNDP and FAO should press for registering the fleet in one country only, flying the UN flag if possible.

### To FAO

1. FAO should take the necessary steps to manage the fleet as far as possible on the lines of a commercial fleet.
2. The procedure in regard to the procurement of vessels which at present involves the participation of different administrative units of FAO should be streamlined.
3. FAO should make greater use of preliminary enquiries from prospective suppliers of vessels and/or invite tenders, once the UNDP Governing Council's approval is given, without waiting for signature of the project document.

4. FAO should give to the Department of Fisheries sufficient authority and financial power to carry out efficiently its responsibility in respect of maintenance and repairs.
5. FAO should take the necessary steps to standardize equipment to the extent possible.
6. FAO - in consultation with UNDP - should be able, after the termination of a project, to dispose of the vessels according to the needs of the Fisheries Programme; only in exceptional cases should a country be allowed to retain a UNDP vessel.
7. FAO should create a "pool of vessels" as soon as possible.
8. It should be the aim to establish an operational unit in charge of managing the UNDP-FAO fleet with full authority. For this purpose the Department of Fisheries should be strengthened.

To UNDP

1. UNDP should give FAO full authority in the procurement of vessels; the project document should give FAO the necessary flexibility to charter, buy or build the units according to the specific aim of the projects.
2. UNDP should assume financial responsibility for the management of the pool of vessels.



Annex I

Project	Title/Funds	Name	FAO No.	Type	Owner	LOA Metres	HP	Vessel Cost US\$	Project		Vessel		Remarks
									Start	Finish	Ordered	Delivered	
I. AFRICA													
BURUNDI DP/BDI/70/508 Bujumbura	Fishery Survey and Development DP \$719,300 Govt. \$55,600	LADY ALICE II -	61 69	Research Combination fishing	UNDP UNDP	12.00 8.00	52 20	45,000 7,000	12. 2.71	11. 2.74	Feb. '71 Oct. '71	July '71 Mar. '72	Project operational
CONGO DP/PRC/66/505 Pointe Noire Brazzaville	Survey and Development of Pelagic Fish Resources (Sardinella) DP \$1,105,900 Govt. \$469,400	ANDRE NIZERY	-	Combination purse seiner/ trawler research	UNDP (Charter)	24.00	380	260,000	30.10.67	1. 7.72	May '69	May '70	Project subcontracted to ORSTOM
DAHOMY, IVORY COAST, TOGO DP/RAF/71/185	Assistance to a Regional Centre for Training of Merchant Seamen and Fishermen DP \$852,500 Govt. \$1,736,500			Training									Project not yet operational
GHANA DP/GHA/65/508 Accra	Fishery Research Unit (Part of Sardinella Scheme) DP \$1,516,800 Govt. \$1,120,200	RESEARCH	-	Trawler/purse seiner	Govt.	22.00	310	200,000	18.10.66	31.12.71	from start		Project completed
		SAKUMO	-	Hydrographic research	Govt.								
		KOKOTE	-	Trawler/purse seiner	Govt.								
GHANA DP/GHA/67/510 Volta Lake, Akosombo	Volta Lake Research (Man-made Lake) DP \$1,483,700 Govt. \$1,746,500	LATES	31	Research catamaran	UNDP	14.00	192	70,000	29. 1.68	30. 6.71	Aug. '68	Jan. '69	Project not completed (operational)
		TATRA	-	Research	Govt.			30,000			from start		
		TILAPIA	-	Research	Govt.			30,000			from start		
								(Out-board) Each					
		-	-	Dinghies (10)	UNDP	5.00	40	1,000				July '69	
		-	32/33	Cabin cruiser(2)	UNDP	5.00	80	1,700				Aug. '68	
	-	34/35	Boston whaler(2)	UNDP	6.00	80	1,800				Oct. '68		
GHANA DP/GHA/72/001	Fishery Development DP \$363,100 Govt. \$160,000			Shrimp trawler Multi-purpose									Project not yet operational
IVORY COAST DP/IVC/66/506 Abidjan	Survey and Development of Pelagic Fish Resources (Sardinella) DP \$1,613,480 Govt. \$988,331	PRESIDENT KENNEDY	-	Trawler/purse seiner	Govt.	26.00	350	400,000	6.10.67	5.10.72	from start		Project operational
		REINE POKOU	-	Trawler	Govt.	25.00	300				from start		

Annex I (cont'd)

Project	Title/Funds	Name	FAO No.	Type	Owner	LOA Metres	HP	Vessel Cost US\$	Project		Vessel		Remarks
									Start	Finish	Ordered	Delivered	
IVORY COAST DP/IVC/71/526 Lake Kossou	Lake Kossou Fishery Development (Man-made Lake) DP \$870,000 Govt. \$202,000	LABEO	67	Research	UNDP	12.00	95	45,000	18. 1.72	17. 1.75	Nov. '71	May '72	Project operational
		HYDROCYON	66	Research	UNDP	8.00	95	20,000			Nov. '71	Apr. '72	
		TILAPIA	65	Launch	UNDP	6.00	8	5,000			Nov. '71	Apr. '72	
IVORY COAST, SENEGAL, SIERRA LEONE UNDP/AFR/REG 9.1 (RFS)	Regional Fisheries Survey in West Africa	THUE JR.	-	Trawler/purse seiner	UNDP (Charter)	38.00	900		6.10.67	5.10.71	-	Dec. '68	Project completed, vessel chartered 2 years at a cost of \$800,000
KENYA, UGANDA, TANZANIA DP/RAF/65/049 Jinja, Uganda	Lake Victoria Fisheries Research DP \$965,500 Govt. \$659,275	IBIS	23	Trawler/purse seiner	UNDP	17.00	180	110,000	7. 3.67	6. 6.72	Aug. '66	Sep. '68	Not completed, on discussion Phase II
		-	24	Boston whaler	UNDP	5.00		1,500				Aug. '69	
MADAGASCAR DP/MAG/68/515 Tananarive	Fishery Development DP \$966,500 Govt. \$422,100	LAMATRA	60	Combination fishing	UNDP	29.00	500	310,000	5.12.68	4.12.72	Jan. '70	Aug. '71	Project operational
MALAWI DP/MLW/69/507	Fisheries Training Centre DP \$394,000 Govt. \$155,988	UTAKA	71	Trawler	UNDP	7.55	20	6,000	19. 8.69	July '72	-	Oct. '71	
			72	Trawler	UNDP	7.55	22	6,000	Phase II	End '76	-	Mar. '72	
			73	Purse seiner	UNDP	11.40	60	25,000	-	-	Jan. '70	End '72	
NIGERIA DP/NIR/66/524 Lagos	Kainji Lake Research (Man-made Lake) DP \$1,260,700 Govt. \$914,727	-	51	Research (houseboat)	UNDP	9.50	192	15,000	12. 8.68	11. 8.74	Apr. '70	May '70	Project operational
		-	52-56	Boston whalers	UNDP	5.00	80 (Out-board)	1,200 each				Nov. '69	
		-		Skiff	UNDP	5.00	-	800				May '69	
NIGERIA DP/NIR/71/541 Lagos	Fishery Training School DP \$870,000 Govt. \$908,000			Training									Project not yet operational
SENEGAL DP/SEN/66/508 Dakar	Survey and Development of Pelagic Fish Resources (Sardinella) DP \$1,429,140 Govt. \$1,226,502	LAURENT AMARO	28	Purse seiner/ trawler	UNDP	24.00	380	220,000	9. 5.68	8. 5.73	Feb. '68	Jan. '69	Project operational
SIERRA LEONE DP/SIL/66/507 Freetown	Survey and Development of Pelagic Fish Resources (Sardinella) DP \$1,137,160 Govt. \$426,224	AWEFU	29	Trawler/purse seiner	UNDP	24.00	380	220,000	27.11.67	26. 4.72	Feb. '68	Feb. '69	Not completed for lack of funds

Annex I (cont'd)

Project	Title/Funds	Name	FAO No.	Type	Owner	LOA Metres	HP	Vessel Cost US\$	Project		Vessel		Remarks
									Start	Finish	Ordered	Delivered	
SOMALIA DP/SOM/67/513 Mogadiscio	Fishery Survey DP \$614,050 Govt. \$113,200	ZHELEZNYAKOV	-	Multi-purpose exploratory	UNDP (Charter)	55.00	800	-	5. 5.69	4. 5.71		Aug. '70	Project completed; vessel chartered 12 months at a cost of \$340,000
ZAMBIA DP/ZAM/68/511 Chilanga	Central Fisheries Research Institute DP \$1,054,400 Govt. \$1,343,400	-	19	Research catamaran	UNDP	8.00	60	15,000	24. 4.69	23. 4.73	from start		Project operational (Phase II)
		-	20	Research catamaran	UNDP	8.00	60	15,000			from start		
II. ASIA AND THE FAR EAST													
FIJI DP/FIJ/70/504 Suva	Local Tuna Fishery DP \$450,200 Govt. \$322,924	SHINPO MARU 2	-	Live bait tuna	UNDP (Charter)	20.00	200		25. 5.71	24. 5.73		Dec. '71	Project operational; vessel chartered 17 months from Taiyo Fishery Co. Japan at a cost of \$190,000
INDIA DP/IND/69/593 Cochin	Pelagic Fishery Inves- tigation on the south west coast DP \$2,024,700 Govt. \$988,247	RESTRELLINGER	68	Stern trawler/ purse seiner	UNDP	46.00	1200	1,300,000	3. 2.71	2. 2.76	Dec. '70	Aug. '72	Project operational; subcontracted to NORAD
		SARDINELLA	64	Combination fishing	UNDP	16.50	150	100,000			Jan. '71	May '71	
INDONESIA DP/INS/71/526 Djakarta and Tegal	Fisheries Development and Training DP \$1,034,400 Govt. \$1,165,000	LEMURU	17	Combination training/trawler/ purse seiner	UNDP	29.00	510	280,000	6. 7.71	5. 7.73		May '72	Project operational; transferred from PAK 522
		TABULA RASA	-	Shrimp trawler	Govt.	23.00	200	200,000			from start		
		MUTIARA I	-	Shrimp trawler	Govt.	23.00	350	150,000			from start		
		MUTIARA II	-	Trawler	Govt.	20.00	165	100,000				Jan. '72	
		MUTIARA III	-	Trawler	Govt.	20.00	165	100,000				Jan. '72	
		-	-	Launch	Govt.	12.00		40,000					
		-	-	Launch	Govt.	12.00		40,000					
INDONESIA (WEST IRIAN) FUNDWI/WIR/68/19 Sorong	Marine Fisheries Development (in co- ordination with INS 526) FUNDWI \$1,669,083 Govt. \$1,290,200	SEISHO MARU	-	Mother ship	FUNDWI	54.00	1200)		30.12.70	20.12.74			Project operational
		KUROSHIO MARU	-	Carrier	FUNDWI	42.00	750)						
		KOSEI MARU	-	)		27.00	420)						
		KIKU MARU	-	)		27.00	420)						
		TAKE MARU	-	) Skipjack	FUNDWI	27.00	420)						
		SAKURA MARU	-	)		27.00	420)						
		HINODE MARU	-	)		34.00	500)						
		-	-	Bait boat (2)	FUNDWI	10.00	35						
		-	62	Combination fishing	FUNDWI (UNDP)	9.00	21	14,000				Apr. '71	Vessels chartered from Nichiro, Japan at a cost of \$600,000

Annex I (cont'd)

Project	Title/Funds	Name	FAO No.	Type	Owner	LOA Metres	HP	Vessel Cost US\$	Project		Vessel		Remarks
									Start	Finish	Ordered	Delivered	
KOREA DP/ROK/68/525 Pusan	Coastal Fishing Training Centre DP \$1,387,200 Govt. \$1,707,770	DONG BAEG 3	42	Trawler	UNDP	24.00	450	260,000	13.12.68	12.12.72	Apr. '69	Dec. '69	Project operational
		DONG BAEG 5	43	Trawler/purse seiner	UNDP	24.00	450	260,000			Apr. '69	Dec. '69	
		DONG BAEG 1	-	Longliner	Govt.	23.00	150	150,000				July '70	Transferred from ROK/510
		DONG BAEG 2	-	Danish seiner	Govt.	26.00	1000	300,000				July '70	
		CHINDALLE I	12	Longliner	UNDP	44.00	800	320,000			Feb. '65	Sep. '65	
		CHINDALLE II	-	Longliner	Govt.	44.00	1000	350,000				Sep. '68	
		KAENALI	13	Trawler	UNDP	31.00	484	200,000			June '65	Jan. '66	
MALAYSIA DP/MAL/68/520 Penang	Fishermen's Training Institute DP \$1,339,100 Govt. \$1,799,378	K.L. KURAU	59	Combination fishing/training	UNDP	29.00	500	310,000	5.11.69	4.11.74	Jan. '70	Aug. '71	Project operational
		K.L. BAWAL		Training	Govt.	22.00	365					Dec. '71	
PAKISTAN DP/PAK/65/522 Chittagong	Survey for Development of Fisheries DP \$2,054,900 Govt. \$1,316,447	SAGAR SANDHANI	17	Trawler/purse seiner	UNDP	29.00	510	280,000	23. 1.67	22. 1.72	May '66	Jan. '67	Project completed (one year supplementary assistance, transferred to INS 526 May '72 under the name of LEMURU, 17)
		MEEN SANDHANI	-	Trawler	Govt.	18.00	153					Jan. '67	
		ALMARINE	18	Launch	UNDP	7.50	130	8,000				Jan. '68	
PHILIPPINES DP/PHI/70/537 Manila	Deep Sea Fishing Development (Phase II) DP \$434,200 Govt. \$2,259,220	MAYA MAYA	16	Trawler/purse seiner	UNDP	29.00	510	280,000	10. 9.70	9. 9.72	Mar. '66	Jan. '67	Project operational
		HASA HASA	25	Combination fishing/training	UNDP	16.00	180	120,000				Apr. '68	
		LAPU LAPU	-	Trawler	Govt.	31.00	450	600,000			from start		Transferred from PHI/511
		MALASUGUI	-	Trawler/longliner	Govt.	31.00	300						
		SABALO	-	Purse seiner	Govt.	31.00	450						
PHILIPPINES DP/PHI/72/038	Fishermen's Training Centre DP \$699,000 Govt. \$846,984												Project not yet operational
SINGAPORE DP/SIN/68/506 Singapore	Fishery Training Centre DP \$1,287,400 Govt. \$1,552,800	JURONG	58	Trawler/training	UNDP	35.00	650	410,000	7.10.69	6.10.74	Jan. '70	Mar. '71	Project operational
		KANGKAR	-	Trawler/purse seiner/longliner	Govt.	20.00	365	100,000				July '70	
VIET-NAM DP/RVN/67/503 Saigon	Off-shore Fishery Development DP \$1,173,500 Govt. \$942,625	HUUNGHI	63	Trawler/purse seiner	UNDP (FFHC)	24.00	380	220,000	19. 3.68	31.12.72		Mar. '69	Project operational
		KYOSHIN MARU	-	Stern trawler	UNDP (Charter)	41.00	1000					Nov. '68	Vessel chartered for 24 months from Nichiro, Japan, at a cost of \$70,000
WESTERN SAMOA DP/WES/70/006 Apia	Tuna Fish Industry DP \$111,800	-	70	Live bait	UNDP	12.00	50	20,000	1. 7.71	30. 6.73		Mar. '72	Project operational

Annex I (cont'd)

Project	Title/Funds	Name	FAO No.	Type	Owner	LOA Metres	HP	Vessel Cost US\$	Project		Vessel		Remarks
									Start	Finish	Ordered	Delivered	
III. LATIN AMERICA													
ARGENTINA DP/ARG/65/510 Mar del Plata	Fishery Development DP \$1,625,300 Govt. \$3,133,350	CRUZ DEL SUR	39	Trawler/purse seiner	UNDP	33.00	680	380,000	15. 6.66	31.12.73	Dec. '67	Dec. '68	Project operational
		GERHARD BJORNSTEIN	-	Purse seiner	Govt. (Charter)	30.00	700					Sep. '70	Vessel chartered 10 months from Mr. B. Olsen, Norway, at a cost of \$200,000
BAHAMAS DP/BHA/UK/72/072	Fishery Development Study DP \$428,400 Govt. \$327,145	FREGATA	21	Combination fishing/training	UNDP	17.00	180	110,000	UNDP Approval: January 1972			May '72	Project operational; transferred from RLA/189
BRAZIL DP/BRA/69/543 Rio de Janeiro	Fishery Research and Development (Phase II) DP \$1,268,200 Govt. \$3,749,200								28. 4.70	27. 4.73			The Government undertook to supply four resource survey vessels
BRITISH HONDURAS DP/BHO/68/004 Belize	Marine Biology DP \$135,125	ALCYON	14	Combination fishing/training	UNDP	25.00	380	190,000	20. 8.69	30. 4.72		Oct. '71	Project completed; chartered from RLA/189 4 months at a cost of \$15,000
CARIBBEAN REGION DP/RLA/69/189 Bridgetown, Barbados	Caribbean Fishery Development (Phase II) DP \$1,381,800 Govt. \$437,247	FREGATA	21	Combination fishing/training	UNDP	17.00	180	110,000	2. 6.70	30. 4.72	May '66	July '67	Project completed; transferred from RLA/016
		ALCYON	14	Combination fishing/training	UNDP	25.00	380	190,000			Mar. '66	Oct. '66	transferred to BHA/UK/072
		CALAMAR	15	Combination fishing/training	UNDP	25.00	380	190,000			Mar. '66	Oct. '66	Transferred from RLA/016 Laid up in Panama since March 1972
		GREAT PROVIDER	-	Trawler	UNDP (Charter)	24.00	380					Oct. '70	Vessel chartered 9 months at a cost of \$96,300 from Marine Dynamics Corp. USA
		TIKI IX	-	Snapper	UNDP (Charter)	19.00	300					Mar. '71	Vessel chartered 6 months from Anderson Seafood, USA at a cost of \$56,500
CENTRAL AMERICA REGION DP/RLA/65/030	Central America Fishery Development DP \$2,845,900 Govt. \$2,496,354	ORION	26	Combination fishing/training	UNDP	15.00	165	50,000	28.11.66	31.12.71	Feb. '67	Nov. '67	Project completed; laid up in Panama since January 1972
		SAGITARIO	22	Combination fishing/training	UNDP	17.00	180	100,000			May '66	Nov. '67	
		CANOPUS	27	Trawler/purse seiner	UNDP	24.00	380	220,000			Dec. '67	Oct. '68	Transferred to PAN/026
		TAURO	41	Trawler/purse seiner	UNDP	20.00	240	130,000			Oct. '68	Mar. '69	Laid up in Panama since January 1972 hopefully to be transferred to GHA/001

Annex I (cont'd)

Project	Title/Funds	Name	FAO No.	Type	Owner	LOA Metres	HP	Vessel Cost US\$	Project		Vessel		Remarks
									Start	Finish	Ordered	Delivered	
COLOMBIA DP/COL/66/522 Bogota, Buenaventura, Cartagena	Marine Fisheries Development DP \$1,391,915 DP \$179,000 (extension) Govt. \$951,385 Govt. \$1,923,000 (extension)	CHOCO	40	Trawler/purse seiner	UNDP	33.00	680	380,000	5. 1.68	4. 1.73	Dec. '67	Apr. '69	Project operational
		INDERENA	-	Research/shrimp trawler	Govt.	16.00	165					May '70	
MEXICO DP/MEX/67/515 Mexico City, Gulf of California and S.W. Coast	Fishery Research and Development DP \$1,707,100 Govt. \$2,105,200	ANTONIO ALZATE	30	Trawler/purse seiner	UNDP	24.00	380	220,000	27.10.69	26.10.74	Apr. '68	Jan. '70	Project operational
		ALEJANDRO DE HUMBOLDT	-	Trawler	Govt.	42.00	1130	1,500,000				Nov. '70	
PANAMA DP/PAN/72/026 Atlantic and Pacific Coasts	Marine Fishery Development Programme DP \$621,800 Govt. \$432,030	CANOPUS	27	Trawler/purse seiner	UNDP	24.00	380	220,000				Jan. '72	Project not yet operational; vessel transferred from RLA/030
PERU DP/PER/65/527 Lima-Callao	Fishery Research and Development DP \$958,600 Govt. \$2,198,600	SNP-1	-	Trawler/purse seiner	Govt.	33.00	680	400,000	17. 7.67	30. 6.72		Apr. '69	Project operational
		UNANUE	-	Research	Govt.	44.00	1400						
		EXPLORADOR	-	Trawler/purse seiner	Govt.	23.00	220						
URUGUAY DP/URU/72/017	Fishery Research and Development DP \$565,800												Project not yet operational
VENEZUELA DP/VEN/66/514 Caracas	Fishery Research and Development DP \$1,340,400 Govt. \$4,245,612	GOLFO DE CARIACO	-	Trawler/purse seiner	Govt.	23.00	680		20.12.67	19.12.72	from start		Project operational
		GOLFO DE PARIA	-	Drum seiner	Govt.	17.00	510	85,000				Nov. '69	
IV. EUROPE, MEDITERRANEAN AND THE MIDDLE EAST													
ALGERIA DP/ALG/72/003 Algiers	Fishery Training and Development DP \$615,200 Govt. \$578,791												Project not yet operational
EGYPT DP/EGY/66/558 Aswan	Lake Nasser Development Centre (Man-made Lake) DP \$1,722,700 Govt. \$1,105,520	BOLTI	44	Research catamaran	UNDP	14.00	192	60,000	3. 7.68	2. 7.73		Sep. '69	Project operational
		SAMOOSE	45	Speed boat	UNDP	8.00	160	14,500				June '69	
		BYAD	46	Speed boat	UNDP	8.00	160	14,500				June '69	
		-	49	Work boat	UNDP	7.50	24	10,000			Oct. '70	Mar. '71	
		-	50	Work boat	UNDP	7.50	24	10,000			Oct. '70	Mar. '71	
		ELDA	-	Launch	Govt.	12.00	120						
		NASSER	-	Launch	Govt.	12.00							
		SAMINA	-	Launch	Govt.	7.50							

Annex I (cont'd)

Project	Title/Funds	Name	FAO No.	Type	Owner	LOA Metres	HP	Vessel Cost US\$	Project		Vessel		Remarks
									Start	Finish	Ordered	Delivered	
JORDAN DP/JOR/68/511 Amman	Fishery Development DP \$966,000 Govt. \$442,597	TAREQ II	57	Stern trawler	UNDP	33.00	900	300,000	18. 3.70	17. 3.73	May '70	Aug. '70	Project operational
MOROCCO DP/MOR/71/531 Casablanca	Marine Fisheries Development DP \$1,060,800 Govt. \$1,131,000												Project not yet operational. Vessel to be allocated
POLAND DP/POL/67/507 Gdynia	High Seas Fisheries Research DP \$1,182,500 Govt. \$12,213,100	PROFESSOR SIEDLECKI	-	Research	Govt.	87.00	2300		24. 9.68	31.12.74		Mid '72	Project operational
TUNISIA DP/TUN/70/533 Tunis	Fishery Survey and Development DP \$841,600 Govt. \$1,278,476	HANNOUN	-	Trawler	Govt.	21.00	300		16. 8.71	15. 8.74	from start		Project operational
		DAUPHIN	-	Combination fishing	Govt.	21.00	300						
		JALTA	-	Research/purse seiner	Govt.	17.00	152						
TURKEY DP/TUR/70/540 Istanbul	Marine Fishery Development DP \$381,400 Govt. \$283,300	YUNUS	-	Trawler/purse seiner	Govt.	17.00	180		31.12.70	30.12.72	from start		Project operational
		SAZAN	-	Trawler/purse seiner	Govt.	17.00	180						
		ARAR	-	Research	Govt.	31.00	380						
YEMEN ARAB REPUBLIC DP/YEM/71/513	Food and Nutrition Programme DP \$1,927,487												Project not yet operational. Vessel to be allocated
YEMEN, PEOPLE'S DEMOCRATIC REPUBLIC DP/PDY/64/501 Aden	Fishery Development in the Gulf of Aden DP \$1,206,400 Govt. \$538,459	RIZQ-AL-BAHR	-	Combination fishing	Govt.	20.00	320	100,000	1. 7.66	31.12.72		Oct. '69	Project operational
		NISSHIN MARU	-	Stern trawler	UNDP (Charter)	44.00	1000					Oct. '69	Vessel chartered 2 years from Nichiro, Japan, at a cost of \$280,000
		NOQUM	-	Fishing	Govt.	14.00	60	20,000				Aug. '70	
		SOUTHERN HOPE	-	Fishing	Govt.	14.00	80				from start		

Annex IIUNDP VESSELS

Name	Location	Cost (\$)
ALCYON, 14	Laid up in Panama	190,000
ALMARINE, 18	Pakistan	8,000
ANTONIO ALZATE, 30	Mexico	220,000
AWEFU, 29	Sierra Leone	220,000
BOLTI, 44	Egypt	60,000
BYAD, 46	Egypt	14,500
CALAMAR, 15	Laid up in Panama	190,000
CANOPUS, 27	Panama	220,000
CRUZ DEL SUR, 39	Argentina	380,000
CHINDALLE I, 12	Korea	320,000
CHOCO, 40	Colombia	380,000
DONG BAEG III, 42	Korea	260,000
DONG BAEG V, 43	Korea	260,000
FREGATA, 21	Bahamas	110,000
HASA HASA, 25	Philippines	120,000
HUUNGHI, 63	Viet-Nam	220,000
HYDROCYON, 66	Ivory Coast	20,000
IBIS, 23	Kenya, Uganda, Tanzania	110,000
JURONG, 58	Singapore	410,000
K.L. KURAU, 59	Malaysia	310,000
KAENALI, 13	Korea	200,000
LABEO, 67	Ivory Coast	45,000
LADY ALICE II, 61	Burundi	45,000
LAMATRA, 60	Madagascar	310,000
LATES, 31	Ghana	70,000
LAURENT AMARO, 28	Senegal	220,000
LEMURU, 17 (ex SAGAR SANDHANI)	Indonesia	280,000
MAYA MAYA, 16	Philippines	280,000
ORION, 26	Laid up in Panama	50,000
RESTRELLINGER, 68	India	1,300,000



Annex II (cont'd)

Name	Location	Cost (\$)
SAGITARIO, 22	Laid up in Panama	100,000
SAMOOSE, 45	Egypt	14,500
SARDINELLA, 64	India	100,000
TAREQ II, 57	Jordan	300,000
TAURO, 41	Laid up in Panama	130,000
TILAPIA, 65	Ivory Coast	5,000
UTAKA, 71	Malawi	6,000
One skiff - no name, no number	Nigeria	800
Ten dinghies - no name, no number	Ghana (\$1,000 each)	10,000
FAO No. 19	Zambia	15,000
20	Zambia	15,000
24	Kenya, Uganda, Tanzania	1,500
32	Ghana	1,800
33	Ghana	1,800
34	Ghana	1,800
35	Ghana	1,800
49	Egypt	10,000
50	Egypt	10,000
51	Nigeria	15,000
52	Nigeria	1,200
53	Nigeria	1,200
54	Nigeria	1,200
55	Nigeria	1,200
56	Nigeria	1,200
62	Indonesia	14,000
69	Burundi	7,000
70	Western Samoa	20,000
72	Malawi	6,000
73	Malawi	25,000
		7,640,500

Annex III

CHARTERED VESSELS

Name	Location
ANDRE NIZERY	Congo
GERHARD BJORNSTEIN	Argentina
GREAT PROVIDER	Caribbean
KYOSHIN MARU	Viet-Nam
NISSHIN MARU	Yemen
SHINPO MARU II	Fiji
THUE JR.	Reg. W. Africa
TIKI IX	Caribbean
ZHELEZNYAKOV	Somalia
Nine vessels	Indonesia