In June 1978, the Administrator provided the Governing Council with a report on the concept, origin and operations of the fisheries vessels pool. Most of the vessels in the pool, purchased from allocations made under the Special Fund, need to be replaced in the near future with modern vessels equipped with advanced electronic instruments. Developments in the fisheries area in the past 10-15 years have determined the type and size of vessels needed. The Administrator, following extensive consultations with the Food and Agriculture Organization of the United Nations (FAO), provides an analysis of the situation and in paragraph 19, recommendations for further action.
Introduction

1. In DP/211 dated 13 April 1978, the Administrator brought to the attention of the Council details on the origin of the vessels pool concept, the Fisheries Vessels Pool Agreement between UNDP and FAO regarding the management of the pool and details of the operational arrangements covering the pool. The report further dealt with the economic and operational benefits resulting from operation of the vessels pool.

2. The report noted in paragraphs 41, 42 and 43 that future needs in vessels would reflect the emerging trend of fully exploring the extended economic zones (EEZ) and of developing the industry accordingly. It specifically forecasted the need to add medium length (30-35 metres) vessels which, because they make excellent fishing units and can be deployed for development work and on-the-job training, it considered the strength of the pool. For fishing activities close to shore, the report suggested that 15-20 metre vessels would be the most effective and cost-efficient; given the growing interest of Governments in chartering pool vessels, it predicted the need for new vessels in this size range as well.

3. The same report indicated that the possibilities of using UNDP holdings of accumulated non-convertible currencies to finance the construction of new vessels would be fully investigated, particularly since a number of countries which contribute such currencies have considerable experience in building ships that could be used for the vessels pool.

A. Use of vessels and future need for vessels

4. The various issues connected with the future needs of the pool have since been dealt with in some detail. The Administrator wishes to apprise the Council of developments in this area since document DP/211 and to obtain the Council's guidance in planning for the further development and maintenance of the pool. The present report accordingly provides an integrated view of the requirements for additional vessels, the substantially increased costs of their construction and maintenance and the resulting strain that such increased costs could place on the limited developmental resources available to many developing countries. The possible implications of such conditions are also discussed as well as a proposed approach to the issues involved.

5. The fisheries vessels in the pool have been deployed in past years mainly in the following three types of activities: (a) surveys by acoustic techniques and traditional methods; (b) on-the-job training; and (c) demonstration of commercial fishing and feasibility studies.

Because of their limited range and power, the vessels have been used for these purposes mainly in near water and off-shore areas covered by current EEZ. The vessels have mostly but not exclusively been used for UNDP-financed activities; a number of projects financed from bilateral or governmental sources have been provided with vessels at cost under standard vessels assignment agreements.

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6. New vessels of various types will need to be acquired for the pool in the near future for various reasons. Recent agreements on the EEZ may require some shift in the type of operations implemented under the pool concept (see paragraph 7). In addition, the outcome of the Law of the Sea Conference may have a significant impact on the demand for pool vessels because of the special nature of the services which the pool can provide. Other factors include the depreciation of the vessels now in the pool (see paragraph 9) and the quite limited residual serviceable period of most of these vessels.

7. The rapid and substantial development of fisheries activities, combined with the need for strong fisheries resource management policies, have emphasized the need for further research, survey and development work both within the EEZ and in distant waters. The operational consequences of the development of fisheries in the EEZ and the need to utilize presently underexploited species further suggest that greater planning and co-ordination among a number of countries having similar interests could emerge in the next few years. Such co-ordination could result in fisheries activities of a subregional or regional nature, which currently are very limited.

8. These factors, some of which are known while others require further research, make it advisable to add to the pool several vessels of a type and size not currently available. Specifically, research and survey activities in the EEZs and in more distant waters will require the following two types of vessels:

(a) Combination fishing/research vessels for off-shore work, capable of being deployed on a regional basis as well as beyond the established 200 miles limit for EEZ: such multipurpose vessels would require sufficient power and equipment to work deep waters and still be able to work reasonably close inshore. The vessels should be between 35 and 39 metres in overall length and with not less than one thousand shaft horse power. Two would be required for the pool. Their cost, fully equipped, would be in the range of $3.0 to $3.5 million each, with an expected delivery time of two years from the placing of an order. In addition, a lead time of about one year would be required to place an order. Based on experience of the shipbuilding market, it should be noted that each year of delay in ordering a vessel could result in cost increases of 15 to 20 per cent; and

(b) Small size, compact, multipurpose vessels mainly for near water fisheries: the selection of power and the necessary equipment should ensure that the vessels be capable of carrying out commercial feasibility studies with different types of gear. Some vessels would also be capable of carrying out surveys using acoustic techniques. The vessels should be in the 25-27 metre range; they would replace some vessels in the pool which are of approximately the same size but have insufficient power, a limited range of operations and less specialized equipment. A maximum of five would be required at a cost of approximately $2.0 to $2.5 million each, if ordered in late 1981 or early 1982, with delivery schedules of approximately two years.
B. Aging of existing fleet, maintenance and amortization factors

9. In the commercial sector, the normal span over which a vessel can be considered efficient enough to ensure a return on capital invested is between 8 to 10 years. At the inception of the pool, however, UNDP and FAO agreed that, in view of the duties they were to perform, a reasonable service period for the pool's vessels would be 15 years for the smaller and 17 years for the larger vessels. The age of most of the existing vessels in the fleet is between 13 to 16 years; 14 of them were built before 1970 and only six built between 1970 and 1974. Most were also built on low budgets and for specific purposes at a time when technical requirements were less demanding than at present; in most cases, the designs and installed power are limited. Therefore, between now and 1986, most of the vessels presently in the pool will have to be phased out of active service. As indicated in paragraph 7 above, this does not imply replacement for each of the vessels to be phased out.

10. For the new vessels, the intention is to apply and charge to budgets a realistic rate of amortization, a factor which the previous arrangements did not provide for. Therefore it is important to note that the maintenance and amortization costs of the new vessels are likely to exceed by far the amounts currently charged or paid to budgets by the Governments. For instance, the vessel assignment fee for a new, well-equipped 36 metre vessel is expected to be approximately $800,000 in 1984 (assuming 80 per cent utilization), of which $180,000 would represent realistic amortization costs. After 1984, the maintenance and amortization fees could be expected to increase by a rate of 8-10 per cent per annum. For the new proposed 25 metre vessel, the vessel assignment fee is likely to cost $500,000 in 1984, of which $135,000 would represent the cost for amortization, with 8-10 per cent increase per annum after 1984. These amounts do not include the direct Government contribution necessary for operational costs for each vessel, which could be as high as $640,000 for the 36 metre vessel and $400,000 for the 25 metre vessel, depending upon the number of actual operational days at sea. These projected costs are substantially higher than the current cost inasmuch as they represent the real costs for the purchase and maintenance of the vessels in an environment where the construction costs of vessels have increased by about tenfold in the last ten years and fuel costs, the main element for operation, have also increased in similar proportion. Assuming 80 per cent utilization of vessels, the entire purchase cost could then be amortized within 12 years. Longer periods would be required if utilization should fall below this rate. For comparison purposes only, the total amount to be charged for the present 35 metre pool vessel in 1984 would be $360,000 exclusive of amortization and $480,000 if full amortization were added.

11. For clarity, it should be noted that the costs discussed above would cover the following elements:

(a) On the part of UNDP: (i) maintenance and classification; (ii) re-fitting; (iii) transfer; (iv) lay-up; (v) fleet management; (vi) insurance; and (vii) depreciation; and (b) On the part of Governments: (i) fuel and lubricant oils; (ii) food and provisions; (iii) crew costs; and (iv) harbor dues.

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C. Options for the use of vessels

12. The very high projected costs set out in paragraph 10 could result, at least initially, in a reduced demand for the use of research vessels and might further result in the pooling of resources of several Governments for use of the same vessel. Therefore, in order to determine the most economic operational modalities, it is necessary to review alternative arrangements and estimate their costs. The three main alternatives available are the following:

(a) Full ownership by UNDP and control of the vessels under the pool arrangement, the cost of which has been discussed above;

(b) Chartering of suitable vessels either from member Governments or from the commercial sector. According to analysis of commercial charter costs, the annual cost to UNDP/FAO and thus to Governments of such chartering would be approximately 20 per cent higher than the comparable total annual cost if the vessels were to be owned by the organization. Obviously, the cumulative cost during the initial years would be somewhat lower if non-pool vessels were chartered because of the heavy initial outlay connected with the purchase of the new pool vessels; however, after five to seven year of operation, the cumulative cost of chartering from outside the pool would exceed the cost of purchase and operation of vessels by the organization. Nonetheless, the option to charter from non-pool sources is not excluded as a possible means of supplementing the number of vessels available to the pool in times of high demand and of meeting specific needs; and

c) Where Government-owned vessels can be identified as suitable for the operations to be carried out and are available for such purposes, they can obviously be used at a much lower cost than either of the above options. Although the number of Governments currently owning such vessels is limited, the number is increasing. Such vessels, however, are normally reserved for the exclusive use of the Government which owns them, thus preventing the release of such vessels for sole use by projects.

13. From the above analysis, it is evident that: (a) the future operation of the pool with new vessels will become more costly to the recipient Governments; (b) chartering, the only other viable option to the purchasing of vessels, would be much more expensive to Governments in the short and long run; and (c) the development of fisheries and the EEZ will place new challenges and opportunities before Governments. In this context, it should be emphasized that in order to maintain the integrity of the pool, the concept of which has proven to be efficient, effective, and successful beyond any doubt, it would be inadvisable to delay the construction of new vessels until actual requests are received from Governments for their use. The acquisition of new vessels should be planned and implemented in a cautious and paced manner to ensure that no substantial investments will be incurred without the ability to properly utilize the vessels. The Administrator urges the Council to endorse the recommendations contained in this report for the procurement of vessels with the full knowledge that, since some factors cannot be determined at this
time, some of the operational premises may not be met. It should be added that, in the event that the projected costs of operations would deter Government from using the vessels in the pool, the maintenance costs of vessels would be substantially reduced and amortization time extended. In the worst scenario, some of the vessels in the pool could be charted for other uses or offered for sale with little or no loss.

D. **Recommendations for acquisition of new vessels**

14. The Administrator recommends that a minimum authority be granted at this time to order one vessel of 36 metre length class and up to three vessels of 25 metre class. The total cost for such a purchase would amount to some $11.5 million, assuming the use of accumulated non-convertible currencies for this purpose. The Administrator further recommends that, should experience prove that additional vessels can be utilized, this authority be extended to the purchase of one more vessel of 36 metre class and two more vessels of 25 metre class. The cost of these additional vessels would amount at current prices to $8.5 million, assuming the use of accumulated non-convertible currencies for this purpose. Further financial considerations and possible financial arrangements follow below.

E. **Financing**

15. Whereas all the original vessels of the pool were purchased under allocations from the United Nations Special Fund, the acquisition of new vessels would require utilization of the central resources of UNDP. As no provision has been made in either the second or the third programming cycle for such resources, the use of accumulated non-convertible currencies for the acquisition of these vessels might prove of special interest. The main advantages of this would be that: (a) substantial amounts of accumulating non-convertible currencies would be utilized; and (b) the diversion of substantial amounts of readily usable currencies and their being tied up for a long period of time until amortization would be avoided. It should be noted that the $37.9 million of accumulated non-convertible currencies available at the end of the first programming cycle as 31 December 1976 (of which $17.7 million equivalent in roubles, $2.0 million equivalent in zlotys and $1.6 million equivalent in dinars) have not been taken into account in estimating resources availability and resources requirements for the second programming cycle.

16. Although it is not possible to make precise comparisons of costs unless full international competitive bidding took place against fixed specifications, market surveys already made show that the use of non-convertible currencies for the purchase of pool vessels, could result in a cost of approximately 10-20 per cent higher than the lowest tenders which could be expected in readily usable currencies from known suppliers of vessels meeting the specifications of the vessels needed for the pool.
17. The Council has already been apprised of the intent of UNDP to approach Governments that contribute non-convertible currencies for this purpose. Substantial efforts have already been made in this direction. Following detailed consultations with UNDP, in June 1980 FAO, as the manager and custodian of pool vessels, sent invitations to bid to three countries whose currencies are in the accumulating/non-convertible category: the Union Soviet Socialist Republic (USSR), Poland and Yugoslavia. These invitations resulted in one offer which did not meet the technical specifications required from the USSR. In view of these results, further bids were requested in September 1980, in which a West European-based company, which was ready to accept accumulated non-convertible currencies was also invited to tender. In this instance the only offer received was from that company and the price offered was approximately double the international market price indicated in paragraph 8 above. Therefore, the offer was declined.

18. Because of this experience, UNDP and FAO agreed that a technical mission should be sent by FAO to the USSR, Poland, Yugoslavia, and the German Democratic Republic in order to determine why either no offer had been made or when made, it had not met the technical specifications. The mission also intended to ascertain that technical specifications would no longer be a constraint to these countries in the event of a new call for bids. The actual visit covered three countries - the USSR, Poland and Yugoslavia - and demonstrated the importance and need for direct technical contacts to clarify assumptions and misunderstandings of a technical nature. Detailed direct technical discussions during the mission resulted in an agreement on the broad technical specifications to be applied. The mission also concluded that, in the event of a new call for bids, there was a likelihood on technical ground for the submission of offers. Although the mission did not negotiate prices, general indications seemed to confirm that the price ranges specified in paragraph 8 above could apply for these vessels. A certain part of the cost would have to be paid in convertible currency, mainly for imported specialized equipment. Depending on the country where the order would be placed, the percentage of such convertible currency would be between 15 and 30 for the larger vessels and 10 to 20 for the smaller vessels.

F. Recommendations of the Administrator

19. In the light of the information provided above, the Administrator recommends that

The Governing Council

Authorize:

(a) The immediate purchase of up to four vessels, as specified in the report for the fisheries pool, at an approximate cost of up to $11 million;

(b) The further purchase of three more vessels at a cost of approximately $8.5 million, should demand for such vessels exist;
(c) That the call for bids for these vessels be limited initially so as to permit the maximum possible use of accumulated non-convertible currencies; and

(d) Should such efforts not result in the conclusion of contracts for the purchase of vessels, full international competitive bidding be pursued for the purchased of the vessels.