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## ANNEX TO THE WORLDWIDE FISHERIES MARKETING STUDY: PROSPECTS TO 1985

# GERMANY EAST



of Canada

Government Gouvernement du Canada

Fisheries and Oceans et Océans

Pēches

(This report is one of a series of country and species annexes to the main study-entitled the Overview).

Annex to the Worldwide Fisheries Marketing Study: Prospects to 1985.

### GERMAN DEMOCRATIC REPUBLIC

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The views expressed in this Study, however, are ours alone and reflect the Canadian perception of worldwide markets.

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### **FOREWORD**

As a consequence of global extension of fisheries jurisdictions, a radical shift has taken place in the pattern of worldwide fish supply and demand. This change is still going on and will continue for many years before a new dynamic equilibrium situation is reached. However, in the midst of this re-adjustment, a new trade pattern is emerging -- some net exporting countries are now importing and vice versa. In the longer term, some countries will experience shortages of supply and others will have a surplus. Fortunately, Canada is amongst the latter group.

The implications for the marketing of Canadian fisheries products arising from the worldwide introduction of the 200-mile limit are extensive. With our vastly improved supply position relative to world demand, government and industry are understandably concerned about ensuring that the bright promise of increased market opportunities are real and can be fulfilled. One of the steps in this process is the publication of the Worldwide Fisheries Marketing Study which assesses the global potential on a country and species basis.

Specifically, the purpose of the Study is to identify the longer term market opportunities for selected traditional and non-traditional species in existing and prospective markets and to identify factors which may hinder or help Canadian fisheries trade in world markets. To date, over 40 country markets and 8 species groups have been analyzed. It should be noted that while the information contained in the Reports was up-to-date when collected, some information may now be dated given the speed with which changes are occurring in the marketplace. In this same vein, the market projections should be viewed with caution given the present and still evolving re-alignment in the pattern of international fisheries trade, keeping in mind the variability of key factors such as foreign exchange rates, energy costs, bilateral fisheries arrangements and GATT agreements which have a direct effect on trade flows.

Notwithstanding, the findings contained in these Reports represent an important consolidation of knowledge regarding market potential and implications for improvements in our existing marketing and production practices. The results of the Study should, therefore, usefully serve as a basis for planning fisheries development and marketing activities by both government and industry in order to capitalize on the identified market opportunities.

This draft report is published for discussion purposes and as such we invite your critical comments.

Ed Wong

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October, 1981.

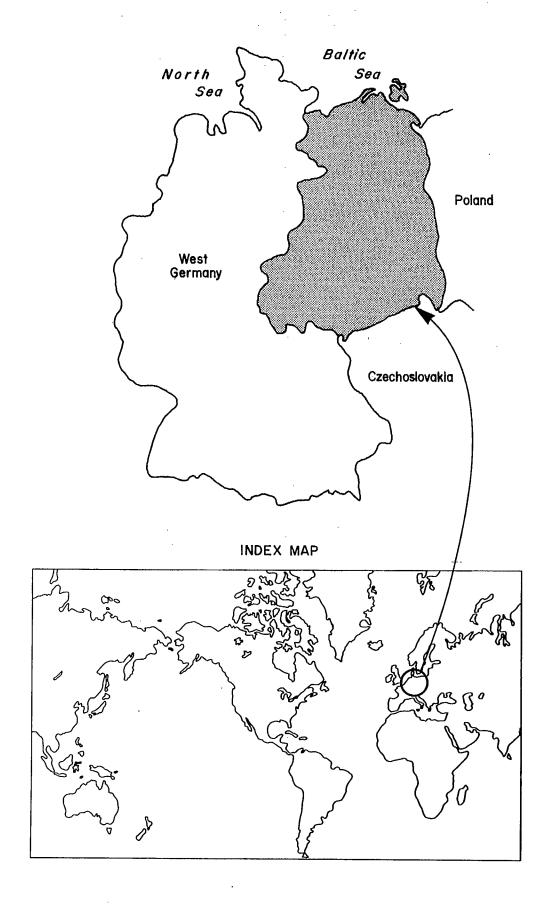
Ottawa

# WORLDWIDE FISHERIES MARKETING STUDY GERMAN DEMOCRATIC REPUBLIC (GDR)

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## GERMANY EAST



### A. DEMAND FOR FISH

### 1. The Market in general

On a per capita basis, the German Democratic Republic has the strongest economy among Communist bloc countries, with a gross national product that increased five-fold between 1950 and 1979 for a real growth rate of 17.8% per year, based on the pegged exchange rate of GDR mark.

However, economic performance notwithstanding, the GDR suffers from many of the problems common to authoritarian planned economies and its policies have placed more emphasis on industrial development than on meeting consumer requirements.

This would suggest that East Germany offers substantial market potential for imported fish products, but it is not an easy market to penetrate, and policies of the GDR government will limit the access of Canadian suppliers in the foreseeable future. Nonetheless, there are possibilities to be explored, and they will be discussed in a later chapter.

The country covers a territory of 108 178 square kilometres and in 1978 had a population of 16.8 million, which was down from 17.1 million a decade earlier. This slow decline in population is a matter of some concern to the GDR authorities and they have introduced measures to reverse the trend, including longer maternity leave for working mothers and financial assistance for parents.

Although it is known as East Germany, the GDR is in fact a northern European nation, with its most southerly point at roughly the same latitude as Winnipeg. Its climate is moderated by proximity to the North Sea and the Baltic.

Officially, the value of the GDR's "soft" currency is equal to that of the West German deutsch mark, but in fact the GDR mark is discounted four to one on the currency black market.

Thus in 1978 and 1979 the actual economic growth rate of the country was 4% against a five-year plan forecast of 5.2% and 4.3%. By comparison, the Soviet Union recorded growth of 2% in 1979.

Citizens of the GDR have enjoyed a steady increase in wages and purchasing power in recent years, though disposable incomes remain modest by Western standards. Average incomes grew from 669 marks in 1968 to 945 marks in 1978, for an annual increase of 4.2% over the decade.

A study conducted in 1978 by Morgan Guaranty Bank found the buying power of East Germans on a per capita GNP to be US \$4 221, the highest among communist nations and 18th in the world, ahead of the United Kingdom at US \$4 016, Italy at US \$3 048 and the Soviet Union at US \$2 759. However, visitors to the country see little evidence of this wealth. Stores are not well stocked, and prices of relatively modest items like small cars appear to be prohibitive.

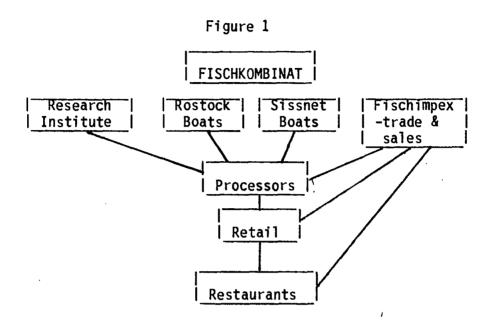
Prices are controlled for basic food items (including fish), as well as for clothing, shelter, transportation (except motor fuel) and public services. These items are subsidized by the government, at a cost of US \$9 billion 1979, or 10% of the national budget. Thus a pound of bread sells for around C\$0.12, milk is C\$0.30 a quart, and modest 2½-room apartment in Berlin rents for \$35 a month. In theory, this leaves the average citizen with ready cash, but "discretionary goods" are expensive and frequently not available.

Business in the GDR in most areas is done by combines (kombinat) or by state agencies which integrate the operations of all firms in a given industry, from research to production and marketing.

In recent years there has been some decentralization in the handling of foreign contracts, with the result that several kombinats are now doing their own trading.

As for the fishing industry, it was reorganized in January 1981, with FISCHIMPEX created under FISCHKOMBINAT to handle all fish trading, including sales of domestic products and imports of fish.

The figure that follows illustrates the new structure of the East German fisheries sector.



The East German economy depends heavily on foreign trade, and as of 1978 the GDR was running a deficit of US \$2.4 billion on its international dealings. Exports in that year were worth \$15.2 billion, while imports amounted to \$17.6 billion. Of the total deficit, it is estimated that \$1.9 billion was with Western nations.

GDR's key Western trading partners are West Germany (FRG), France, Sweden and The Netherlands. Canada ranked 15th at \$27 million in 1978, and had a surplus in its dealings with East Germany. The continued trade deficit with the West has led to heavy GDR borrowings in the free world, which stood at US \$6.5 billion at the end of 1978.

Economic development policy emphasizes investment in heavy industry. As much as possible, food requirements are met from domestic or  $\underline{\mathsf{COMECON^1}}$  sources. Imports of Western food products are held to the minimum, and in the case of fish must be paid for in hard currency from the earnings (if any) of the GDR fisheries sector.

Bulgaria, Czechoslovakia, GDR, Hungary, Poland, Cuba, USSR, Mongolia and Vietnam are full members of the Council for Mutual Economic Assistance (CMEA or COMECON)

Because of this policy, combined with the GDR burden of debt to Western countries and fixed official food prices, it is unlikely that Canadian fish can be sold on this market in significant quantities without some sort of <u>quid proquo</u> or leverage, such as bilateral agreements allowing East German fishing vessels access to Canadian waters, or co-operative arrangements permitting the country's fleet and/or processors to earn hard currency.

### 2. Domestic consumption

Per capita consumption of fish products in the GDR has declined from eight kilograms in the mid-1970s to about five kilograms in 1980. This does not reflect any drastic change in consumer tastes, but is due mainly to a reduction in the supply of fish, which in turn was brought about largely by the adoption of 200-mile economic zones by coastal nations, resulting in restricted access, lower quotas and reduced catches for the East German fishing fleet.

Consumers have had no choice but to turn to fresh meat and poultry as protein foods. There remains, however, a strong demand for fish in a population long accustomed to quality products of the kind Canada is able to supply.

In the early 1970s, East Germans were consuming between 300 000 and 350 000 tonnes of fish products annually. By species, they consumed 120 000 to 150 000 tonnes of herring and mackerel, 80 000 to 90 000 tonnes of cod, pollock and redfish, 25 000 tonnes of halibut, with the remainder made up of flounder, sprats and other species.

There are no recently published statistics concerning overall demand and consumption, but obviously, given the drop in domestic supply in recent years, the GDR requires additional imports to meet consumer demand. But consumer demand notwithstanding, additional imports will be permitted only to the extent that the FISCHKOMBINAT agency can earn hard currency to pay for them.

### B. SUPPLY OF FISH

### 1. Domestic Production

Data compiled by the United Nations Food and Agriculture Organization (FAO) illustrate what has happened to the East German fishing industry.

In 1970, the country's total catch was 321 800 tonnes, made up of 308 200 tonnes from marine operations and 13 600 tonnes from inland waters. Landings reached a peak in 1975 at 376 186 tonnes, then began a steady decline, to 279 302 tonnes in 1976, 211 540 tonnes in 1977, and 198 401 tonnes in 1978 (183 361 from marine operations and 15 040 from inland waters).

Details of the East German catches from 1970 to 1978 are shown in Table 1, which follows.

TABLE 1

GDR: Total catches of fish, 1970-1978.

(tonnes)

|      | INLAND WATERS | MARINE WATERS | TOTAL   |
|------|---------------|---------------|---------|
| 1970 | 13 600        | 308 200       | 321 800 |
| 1971 | 14 100        | 324 000       | 338 100 |
| 1972 | 14 200        | 321 400       | 335 600 |
| 1973 | 13 100        | 351 500       | 364 600 |
| 1974 | 13 358        | 349 840       | 363 198 |
| 1975 | 14 781        | 361 405       | 376 186 |
| 1976 | 13 187        | 266 115       | 279 302 |
| 1977 | 16 117        | 195 423       | 211 540 |
| 1978 | <b>15 040</b> | 183 360       | 198 400 |

Source: FAO <u>Yearbook of Fishery Statistics, COMMODITIES</u> Vol 47, 1978, Rome, Italy.

As a traditional fishing nation in waters that now fall within the 200-mile limits of other nations, East Germany retains some access and has been allocated catch quotas, particularly in the northeast and northwest Atlantic, and including Canadian waters.

Following is an analysis of the GDR catch by major species:

 $\underline{\text{Cod}}$  -- Most of the East German cod catch comes from the northeast Atlantic, where landings in 1978 were 12 449 tonnes, which represents a drop of about 50% since 1975.

The GDR allocation of cod from the International Commission on North Atlantic Fisheries (ICNAF) in 1975 was 26 700 tonnes. The country's 1980 allocation off Eastern Canada was 1 400 tonnes, but available data indicate the actual catch in the northwestern Atlantic was only 854 tonnes from Canadian waters.

TABLE 2

# GDR: major cod landings, 1975-1978. (Brackets indicated inside Canadian zone) (tonnes)

|             | <u>1975</u> | <u>1976</u> | 1977         | 1978         | <u>1979</u> | 1980  |
|-------------|-------------|-------------|--------------|--------------|-------------|-------|
| NW Atlantic | 22 540      | 11 830      | 4 305(4 305) | 2 177(2 110) | (1 559)     | (854) |
| NE Atlantic | 25 272      | 17·564      | 14 451       | 12 449       |             |       |

Note: Data for NE Atlantic catches not available for 1979 and 1980 Source: FAO, IBID and Department of Fisheries and Oceans, Ottawa.

Redfish -- Allocations of redfish for the GDR off Canada's Atlantic coast have decreased from 3 500 tonnes in 1975 to 2 660 tonnes in 1980. Allocations in the northeastern Atlantic have decreased more sharply. East German vessels continue to harvest redfish in both regions, but landings have declined by about 50% since 1975.

TABLE 3

# GDR: major redfish landings 1975-1980. (brackets indicate inside Canadian zone)

(tonnes)

|             | 1975   | <u>1976</u> | <u>1977</u>  | 1978       | 1979  | 1980    |
|-------------|--------|-------------|--------------|------------|-------|---------|
| NW Atlantic | 2 452  | 2 473       | 1 449(1 519) | 1 061(656) | (274) | (1 328) |
| NE Atlantic | 32 513 | 22 636      | 17 614       | 16 165     |       |         |

Note: Data for NE Atlantic catches not available for 1979 or 1980.

Source: FAO, IBID and Department of Fisheries and Oceans, Ottawa

Herring -- Allocations off Atlantic Canada have dropped from 31 900 tonnes in 1975 to zero since 1977. East German landings in the northeastern Atlantic have also shown a steady decline.

TABLE 4

GDD: major harring landings 1975-1978

|             | <u>u</u> u  | r. majur | nerring ran | umgs, 1975 | -19/0. |
|-------------|-------------|----------|-------------|------------|--------|
|             |             |          | (tonnes)    |            |        |
|             | <u>1975</u> | 1976     | 1977        | 1978       |        |
| NW Atlantic | 30 901      | 7 891    |             |            |        |
| NE Atlantic | 76 409      | 62 019   | 62 452      | 46 261     |        |

Source: FAO, IBID.

<u>Mackerel</u> -- Traditionally, the GDR harvested most of its mackerel from the northwestern Atlantic, but there has been no access to the mackerel fishery off the Canadian coast since 1976, when ICNAF allocated 48 900 tonnes to East Germany. FAO statistics indicate the country has not been able to find alternative sources of mackerel.

TABLE 5

GDR: major mackerel landings, 1975-1978

|    |          |             |             | (tonnes | )    |
|----|----------|-------------|-------------|---------|------|
|    |          | <u>1975</u> | <u>1976</u> | 1977    | 1978 |
| NW | Atlantic | 48 343      | 38 150      | 7 981   |      |
| NE | Atlantic | 9 835       | 4 768       | 473     | 233  |

Source: FAO, IBID

Halibut -- Allocations off Canada have dropped from 3 000 tonnes in 1975 to zero in 1980, with varying quantities allocated in the intervening years. Given the dramatic drop in GDR landings and consumption that used to amount to around 25 000 tonnes yearly, East Germany is understandably interested in purchasing this species.

TABLE 6

| GDR: | major G  | Greenland  | halibut   | landings,  | 1975-1980 |
|------|----------|------------|-----------|------------|-----------|
|      | (bracket | ts indicat | te inside | . Canadian | Zone)     |
|      | •        | 4          |           |            |           |

|             |             |       | (tonnes)     |              |             |       |
|-------------|-------------|-------|--------------|--------------|-------------|-------|
|             | <u>1975</u> | 1976  | <u>1977</u>  | 1978         | <u>1979</u> | 1980  |
| NW Atlantic | 2 081       | 1 672 | 2 528(2 331) | 1 632(1 603) | (76)        | (291) |
| NE Atlantic | 25 460      | 8 955 | 8 176        | 4 611        |             |       |

Source: FAO, IBID and Department of Fisheries and Oceans, Ottawa

### 2. Imports

As noted previously, the policy of the GDR government tends to discourage imports of food products, including seafoods, regardless of consumer demand. Therefore, even though the country's domestic landings of fish have declined significantly, so have East German imports of fish and fish products, as illustrated in the table that follows.

Table 7

GDR: imports of fisheries products, 1970-1978 (tonnes)

|      | Fish,fre | esh    | Fish,      | dried | salted | Fish | 1    | Tota       | al . |
|------|----------|--------|------------|-------|--------|------|------|------------|------|
|      | chilled  | or fro | ozen or sm | oked  |        | Mea  | s    |            |      |
| 1970 | 40       | 100    | 2          | 200   |        | 140  | 000  | 182        | 300  |
| 1971 | 26       | 900    | 1          | 000   |        | 210  | 000  | 237        | 900  |
| 1972 | 12       | 400    | 1          | 800   |        | 80   | 000  | 94         | 200  |
| 1973 | 12       | 900    |            | 400   |        | 40   | 000  | 53         | 300  |
| 1974 | 10       | 800    | •          | 300   |        | 139  | *000 | 150        | 100  |
| 1975 | 14       | 100    |            | 100   |        | 154  | *000 | 168        | 200  |
| 1976 | 16       | 100    |            | 0     |        | 177  | *000 | 193        | 100  |
| 1977 | 3        | 950    | •          |       |        | 133  | 000* | 136        | 950  |
| 1978 | 1        | 836    |            |       |        | 97   | 500  | 9 <b>9</b> | 336  |

Note: \* indicates insufficient data, estimates only.

Source: FAO, IBID.

### C. THE GDR FISHERIES INDUSTRY

VEB FISCHKOMBINAT is the firm that controls all aspects of the fishing industry in the GDR, the organization of which is shown on the accompanying chart. The head of the firm is the general director and each unit is headed by a deputy general director. FISCHKOMBINAT consists of a central directorate that controls numerous subsidiary companies involved in the fishing, processing, research, distribution and trade components of the industry. Total employment in the firm is about 22 000 people. The fishing companies catch the fish and sell it to the processing companies, which in turn sell it to other FISCHKOMBINAT-controlled companies that distribute it to restaurants and retail outlets. FISCHKOMBINAT owns some of the fish stores and fish restaurants.

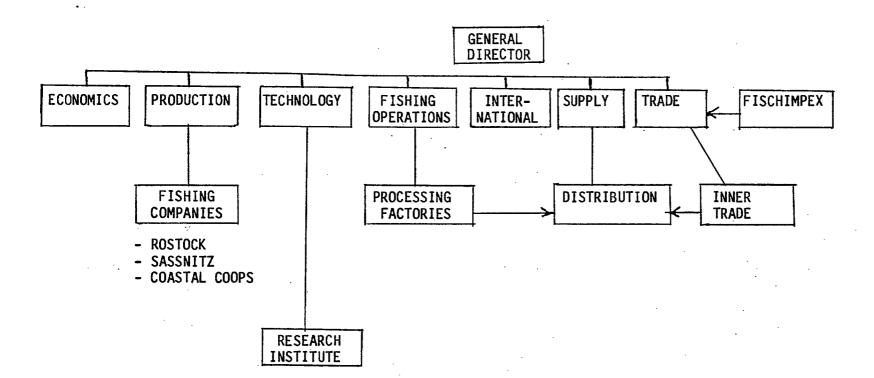
FISCHKOMBINAT also has a research institute that employs about 500 people. Research here is carried out on all aspects of the industry, including fish biology and new catching techniques. All fishing vessels are built in the GDR and naval architects at the research institute are involved in their design. Within the institute is a product development division that passes on new products and species samples to a marketing company that then does the market testing.

The central offices of the company are located in Rostock (two hours by car north of Berlin), where the main component of the offshore trawlers, four transport vessels and two processing vessels with 21 feeder trawlers based in Rostock. As well there are two trawlers based in Sassnitz and numerous smaller boats based along the coast. Rostock also has a cold storage facility capable of storing 20 000 tonnes of primary and end products.

All foreign trade of fish (imports and exports) is handled by <u>FISCHIMPEX</u>, a subsidiary company formed in January, 1981.

The government body that controls the activities of the fishing fleet is the Board of Fisheries, which oversees the granting of licences and the discipline of the fleets fishing in both domestic and foreign waters.

FIGURE 2
FISCHKOMBINAT



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### D. POTENTIAL FOR CANADIAN SALES

In spite of all the problems and difficulties, as outlined in earlier chapters, the German Democratic Republic clearly offers the greatest market potential among countries of the Eastern Bloc.

Given the dramatic drop in the GDR domestic catch and the well-established taste of East German consumers for a variety of quality seafood products, there is obviously a significant demand that is being undersupplied.

Government policies and regulations that discourage food imports present the main obstacle, and in the circumstances it will take considerable effort and imaginative marketing on the part of Canadian suppliers to make significant inroads into the market.

Furthermore, since GDR imports of fisheries products are controlled by a state agency, <u>FISCHKOMBINAT</u> and its subsidiary <u>FISCHIMPEX</u>, any export sales will probably require close co-operation between the Canadian government and prospective suppliers.

In the past, Canadian exporters ahve experienced great difficulty in obtaining payment for products shipped to the GDR. However, in January 1981 there was an agreement reached on a new system under which <u>FISCHKOMBINAT</u> would arrange payment for goods delivered within two weeks of receiving an invoice. Payment will be in the form of a bank transfer, and GDR authorities pointed out that the transfer would be expedited if the Canadian company, or its bank, had an account with the Bank of America.

Canadian sales of fish to East Germany have been relatively small over recent years, representing only a fraction of total exports, and fluctuating in value from C \$184 000 in 1977 to C \$260 000 in 1978, C \$784 000 in 1979 and running at \$133 000 for the January-June period of 1980. For 1979, whole or dressed fish, fresh or frozen, accounted for the bulk of sales at \$575 000. Details of Canadian trade with the GDR are shown in the following table.

TABLE 8

Canada: GDR fisheries and total trade 1977-1980

### Canada's exports of fisheries products

|   | ,       | Valu <b>e</b> ( | \$000)      |                     |
|---|---------|-----------------|-------------|---------------------|
| ,                                       | 1977    | 1978            | 1979        | 1980<br>(Jan/June)  |
| Fish, whole or dressed, fresh or frozen |         | 121             | 575         | ·                   |
| Fish, fillets and block fresh or frozen | is, 184 | 139             |             | 133                 |
| Other fishery foods and feeds           | l       | · <b></b>       | 209         |                     |
| TOTAL                                   | \$ 184  | \$ 260          | \$ 784      | \$ 133              |
| General Canada - GDR tr                 | ade_    |                 |             |                     |
|   |         | Value (         | \$000)      | •                   |
| ·                                       | 1977    | 1978            | <u>1979</u> | 1980                |
| Canadian Exports                        | 31 523  | 24 384          | 35 858      | 3 768<br>(Jan/Sept) |
| Canadian Imports                        | 5 371   | 7 667           | 9 776       | 5 196<br>(Jan/June) |

Source: Statistics Canada, Exports by Commodity, Ottawa, 1980.

According to species, probably the best prospects for Canadian exporters are in sales of cod. In fact GDR authorities have indicated that they could easily take 10 000 tonnes of cod fillets from Canada -- under the right circumstances.

The right circumstances, of course, must of necessity include some sort of arrangement through which the East German fisheries agencies can earn enough hard currency to purchase the product.

Other species in which the GDR is interested include herring, mackerel, redfish and halibut but, once again, only if the problem of hard currency can be overcome.

### E. CONCLUSION

There is a significant unsatisfied market for fish products in the German Democratic Republic.

The major obstacle facing foreign suppliers is government policy that restricts seafood imports by requiring that the GDR fisheries industry earn the hard currency to pay for foreign products.

Nonetheless, the GDR clearly offers the greatest market potential among Communist Bloc nations.

The solution to significant penetration of this market probably lies in finding some sort of <u>quid pro quo</u> or leverage, for example bilateral agreements allowing the GDR fleet access to Canadian waters, or other co-operative arrangements that permit the country's fishermen and/or processors to earn hard currency.

APPENDICES

APPENDIX I

### GDR: FISHERIES PRODUCTION 1972-1978.

000 tonnes

|                                | 1972  | <u>1973</u> | <u>1974</u> | <u>1975</u> | 1976 | 1977 | 1978 |
|--------------------------------|-------|-------------|-------------|-------------|------|------|------|
| Fish, fresh, chilled or frozen | 54.0* | 54.0*       | 54.0*       | 51.9        | 49.8 | 20.8 | 27.5 |

Note:\* Indicates insufficient data, estimates only

Source: FAO, IBID

APPENDIX II

NOMINAL CATCHES BY COUNTRIES AND SPECIES
FISH, CRUSTACEANS, MOLLUSCS, 1974-1978

| PECIES                        |          |        | ONNES)          |     |            |     |          |     |     |
|-------------------------------|----------|--------|-----------------|-----|------------|-----|----------|-----|-----|
|                               | 197      | 4      | 1975            |     | 1976       |     | 1977     |     | 197 |
| reshwater Breams NE1          | 302      |        | 533 .           |     | 882        |     | 991      | 1   | 140 |
| Common Carp                   | 9 966    |        | 688             | 9   | 167        | 11  | 863      | 10  | 202 |
| caches                        | 1 508    |        | 979             | 1   | 866        | 1   | 992      |     | 24  |
| typrinids NE1                 | 172      |        | 162             |     | 138        |     | 111      |     | 115 |
| Forthern Pike                 | 484      |        | 452             |     | 462        |     | 471      |     | 386 |
| uropean Perch                 | 534      |        | 419             |     | 669        |     | 704      |     | 648 |
| ike-Perch                     | 817      |        | 925             |     | 903        |     | 590      |     | 576 |
| reshwater Fishes NE1          | 442      |        | 958             | 1   | 576        | 1   | 062      | 1   | 008 |
| Grapean Eel                   | 934      |        | 016             | -   | 936        |     | 935      |     | 843 |
| endace                        | 100      |        | 103             |     | 91         |     | 84       |     | 106 |
| routs NE1                     | 1 258    |        | 424             | 1   | 445        | 1   | 950      | 2   | 429 |
| lewife                        | 2 659    |        | 121             |     | 260        | •   | 69       | -   |     |
| llis Shad and Twaite Shad     | 2 677    |        | 121             | •   | <b>200</b> |     | ~~       |     |     |
| latfishes NE1                 | =        |        | 23              |     |            |     |          |     | 14  |
| tlantic Halibut               |          |        | 7               |     |            |     |          |     | :   |
| uropean Plaice .              | 46       |        | 100             |     | 97         |     | 41       | 1   | 23  |
| reenland Halibut              | 35 017   |        | 541             | 10  | 627        | 10  | 704      |     | 24  |
| itch Flounder                 | 272      |        | 456             |     | 1.10       |     | 203      | _   | 51  |
| mer, Plaice (=Long Rough Dab) | 3/       |        | <del>39</del> 7 |     | 104        |     | 44       |     | 3.  |
| Common Dab                    | 18       |        | 81              |     | 30         |     | 36       |     | 60  |
| uropean Flounder              | 2 301    |        | 039             | 2   | 631        | 3   | 263      | 2   | 720 |
| urbot                         | 250      |        | 41              | _   | 57         |     | 55       | _   | 3   |
| usk (CUSK)                    |          |        | 5               |     |            |     |          |     | ĺ,  |
| utlantic Cod                  | 39 247   |        | 812             | 29  | 394        | 18  | 752      | 14  | 626 |
|                               | 26       |        | 26              |     | 18         | ,,, | 6        | • • | 72  |
| ing                           | 462      |        | 490             |     | 369        |     | 152      |     | 406 |
| laddock                       | 35 563   |        | 916             | 1/4 | 104        | ٥   | 618      | ρ   | 888 |
| aithe (=Pollock)              |          |        |                 | 1-4 |            | ,   | 1        | U   | 000 |
| ollack<br>olar Cod            | 2        |        | 4               |     | 3<br>      |     |          |     |     |
|                               |          |        |                 |     | 061        | 7   | 125      | 10  | 003 |
| lue Whiting (=Poutassou)      |          |        |                 | ,   |            | ,   |          | 10  | 22  |
| hiting                        | 4        |        | 8               |     | 55         |     |          |     | 24  |
| uropean Hake                  | 2        |        | 5               |     | 1          |     |          |     | -   |
| ilver Hake                    | 38       |        | 37              | 06  |            |     |          |     |     |
| lorth Pacific Hake            | 1 246    | 10     | 573             |     | 905<br>140 | ۸.  | 923      | /   | 825 |
| ape Hakes                     | -        | •      |                 | ,   |            | 4   | 1        | 4   | UZ. |
| enegalese, Mauritanian Hakes  |          | ·<br>- |                 |     | 740        |     |          | 4   | 944 |
| doundnose Grenadier           | 4 645    |        | 643             |     | 719        |     | 774<br>5 | 1   | 842 |
| rgentines                     | 187      |        | 21              |     |            |     |          |     |     |
| ea Catfishes                  | <b>-</b> | •      |                 |     |            |     | 40       |     |     |
| roupers NE1                   | =-       | ,      |                 |     | 1          |     |          |     |     |
| eabasses, Seaperches NE1      | ***      | ı      |                 |     |            |     | 4        |     |     |
| nappers NE1                   |          | •      |                 |     |            |     | 39       |     |     |
| runts (=Grunters) NE1         |          |        |                 |     |            |     | 3        |     |     |

### APPENDIX II (Cont'd)

## NOMINAL CATCHES BY COUNTRIES AND SPECIES FISH, CRUSTACEANS, MOLLUSCS, 1974-1978

| SPECIES  | (TONNES)      |             |                  |             |        |
|--|---------------|-------------|------------------|-------------|--------|
|  | 1974          | 1975        | 1976             | 1977        | 1978   |
| Croakers, Drums NE1  | ***           |             |                  |             | 34     |
| Black Bream  |               |             |                  | 23          | ***    |
|  | 13.           | 71          | 8                |             |        |
| Scup<br>Porgies, Seabreams NE1   |               | . ==        | 6 <del>9</del> 1 | 68          | 16     |
| Marbled Notothenia   |               |             | ~~               | 420         | 1 232  |
| The state of the s | . <del></del> |             |                  | 370         | 1 961  |
| 3umphead Notothenia<br>Notothenids (=Antarctic Cods)   |               | . <b></b>   |                  | <i>5</i> 70 | 20     |
| Scotia Sea Icefish   |               |             |                  |             | 200    |
| Antarctic Icefish  |               |             |                  |             | 2 769  |
|  | ~-            |             |                  |             | 4 288  |
| South Georgia Icefish  | 9             | 208         | <br>19           | 57          | 14     |
| Atlantic Wolffish (=Catfish)   |               |             |                  | 37          | 3      |
| Holffishes (=Catfishea) NE1  | . 39          | 5           |                  | <i>31</i>   | 169    |
| andeels (=Sandlances)<br>Atlantic Redfishes  | 32 054        | 34 965      | 25 109           | 19 063      | 17 226 |
|  |               | 101         | 13               |             |        |
| Scorpionfishes NE1   | <b></b>       | · 7         | 418              | 1 014       | 407    |
| Capelin<br>Garfish   | 356           | 172         | 315              | 427         | 616    |
| _  |               |             |                  | 427         | 62     |
| Barracudas   | <del></del>   |             |                  |             | 2      |
| hreadfins  |               |             | 1                |             | 6      |
| Bluefish   | 16            | 62          |                  |             | •      |
| Atlantic Horse Mackerel  | 49            | . 107<br>10 | 215<br>53        | 45          |        |
| Pacific Jack Mackerel  | ·             |             |                  |             | ~~     |
| Rough Scad   |               | 1           |                  |             | 76 406 |
| Jack and Horse Mackerels NE1   |               | ****        | 1 076            | 11 803      | 34 126 |
| Jacks, Trevallies  |               |             |                  | 380         |        |
| Black Pomfret  |               |             |                  | 9           | ~~     |
| Atlantic Rutterfish  | 400 774       | 1           | 3                |             | 46 061 |
| Atlantic Herring   | 108 734       | 107 310     | 69 907           | 62 452      | 46 261 |
| Pacific Herring  | ****          | 1 538       | 465              |             |        |
| Sardinellas NE1  |               |             |                  | 123         | 387    |
| South African Pilchard   |               | ·           |                  | 203         |        |
| Red-eye Round Herring  | ~=            |             |                  | 192         | 676    |
| Curopean Pilchard (=Sardine)   | 3 352         | 5 858       | 9 755            | 13 159      | 196    |
| Sprat  | 14 168        | 16 702      | 14 015           | 18 647      | 13 710 |
| European Anchovy   | ***           | , <b></b>   | 29               |             | ~~     |
| Atlantic Bonite  |               |             | ~~               |             |        |
| Northern Bluefin Tuna  | 42            |             |                  |             |        |
| una-like Fishes NE1  | 1             |             | 13               |             | 31     |
| Silver Scabbardfish  |               | ÷~          | 65               | 528         | 89     |
| Chub (=Spanish) Mackerel   |               | <u>~~~</u>  |                  | 1 380       | 898    |
| Atlantic Mackerel  | 63 107        | 58 178      | 42 915           | 8 454       | 233    |
| Picked (=Spiny) Dogfish  | 100           | 62          | 12               | 6           |        |
| Dogfish Sharks NE1   | 6             | 1           |                  | 2           |        |
| Skates and Rays NE1  | ~~            | 52          | 15               | 70          | 159    |
| Marine Fishes NE1  | 2 839         | 854         | 51               | 20          | 892    |

### APPENDIX II (Cont'd)

### NOMINAL CATCHES BY COUNTRIES AND SPECIES FISH, CRUSTACEANS, MOLLUSCS, 1974-1978

| SPECIES                | (TONES)    |         |         |         |         |
|------------------------|------------|---------|---------|---------|---------|
|                        | 1974       | 1975    | 1976    | 1977    | 1978    |
| Common Shrimp          | <b>-</b> - |         | 2       |         | ·<br>   |
| Natantian Decapods NE1 |            |         |         |         | 12      |
| Antarctic Krill        |            |         |         |         | 8       |
| Long-finned Squid      |            | 620     | 317     | 9       |         |
| Short-finned Squid     |            | 295     | 996     |         |         |
| Squids NE1             |            |         |         |         |         |
| TOTAL                  | 363 198    | 376 186 | 279 299 | 211 590 | 126 653 |

Source: FAO, Yearbook of Fisheries Statistics - Catches and Landings, Vol. 46, Rome, Italy, 1978.

