



OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

TOGETHER

for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as "developed", "industrialized" and "developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact <u>publications@unido.org</u> for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org





MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS STANDARD REFERENCE MATERIAL 1010a (ANSL and ISO TEST CHART No. 2)

Distr. LIMITED UNIDO/IS.519 11 March 1985 ENGLISH

•

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

.

14420

IN THE WORLD TRADE OF OILSEEDS, VEGETABLE OILS AND RELATED PRODUCTS (prepared by the UNCTAD secretariat)

> Sectoral Working Paper Series No. 28

Don P. Clark

Sectoral Studies Branch Division for Industrial Studies

1

1.10

Λ

SECTORAL WORKING PAPERS

During the course of work on major sectoral studies by UNIDO'S Division for Industrial Studies, several working papers are produced by the Secretariat and by outside experts. Selected papers that are believed to be of interest to a wider audience are presented as Sectoral Working Papers. These parers are more exploratory and tentative than the sectoral studies. They are therefore subject to revision and modifications before incorporation into the sectoral studies.

This document has been reproduced without formal editing.

The designations employed and the presentation of material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of company names and commercial product does not imply the endorsement of the United Nations Industrial Development Organization (UNIDO).

This paper was prepared by the UNCTAD secretariat as a contribution to the UNIDO study entitled "The vegetable oils and fats industry in developing countries: outlook and perspectives", UNIDO/IS.477, Sectoral Studies Series No. 13, Vol. I, July 1984.

Foreword

This paper has been prepared by the UNCTAD secretariat for UNIDO's Division for Industrial Studies, Sectoral Studies Branch, in connection with its ongoing activities in the area of the vegetable oils and fats industry, a sector in which developing countries continue to play an increasingly important role in the world's production and trade.

The report reviews recent changes in world trade, discusses tariff and non-tariff obstacles to trade and includes an analysis of the potential effects of tariff removal on the market of vegetable oil products from developing countries.

The UNCTAD secretriat prepared this paper with the assistance of Mr. Don P. Clark of the University of Tennessee. UNIDO expresses its appreciation for this valued inter-agency co-operation.

Material from this report has been used for the elaboration of chapter 3 of the UNIDO study entitled "The vegetable oils and fats industry in developing countries: outlook and perspectives", UNIDO/IS.477, Sectoral Studies Series No. 13, Vol. I, July 1984 which was one of the main background documents for the Second Consultation on the Food-Processing Industries, held in Copenhagen, October 1984.



- iii -

Page

1

Contents

1.	INTRODUCTION	1
2.	INTERNATIONAL TRADE IN OILSEEDS, VEGETABLE OILS AND RELATED PRODUCTS	2
3.	OBSTACLES TO TRADE IN OILSEEDS, VEGETABLE OILS AND RELATED PRODUCTS	6
	3.1 Tariffs 3.2 Non-tariff measures	6 10
4.	POTENTIAL TRADE EXPANSION EFFECTS FROM TRADE LIBERALIZATION	19
5.	SUMMARY AND CONCLUSIONS	23
Арре	ndix	27
	Tables	
1.	Trade in oilseeds, vegetable oils and products, 1975-1981	3
2.	Developing and developed market-economy country exports of oilseeds and vegetable oils, 1975–1981	4
3.	Relative importance of products	5
4.	Average tariff rates facing oilseeds, vegetable oils and related products in major developed markets	8
5.	Average ad valorem tariff rates on oilseeds and oils in selected developing countries	10
6.	Selected direct import control measures applied in 23 develcped market-economy countries and 22 developing countries, on oilseeds and their products	12
7.	Changes in real prices of the principal primary commodities exported by developing countries: first half 1982 compared with selected earlier years	16
8.	The effects of trade policies on price instability in exporting and importing countries	17
9.	Estimated trade effects from a complete removal of Post-Tokyo Round tariffs facing oilseeds, vegetable oil product exporters in major DMEC importers	20
A.1	Product coverage	30
	 1. 2. 3. 4. 5. Appe 1. 2. 3. 4. 5. 6. 7. 8. 9. A.1 	 INTRODUCTION INTERNATIONAL TRADE IN OILSEEDS, VEGETABLE OILS AND RELATED PRODUCTS ORSTACLES TO TRADE IN OILSEEDS, VEGETABLE OILS AND RELATED PRODUCTS Tariffs

Γ.

EXPLANATORY NOTES

References to dollars (\$) are to United States dollars, unless otherwise stated.

A comma (,) is used to distinguish thousands and millions.

A full stop (.) is used to indicate decimals.

A sigsh between dates (e.g., 1980/81) indicates a crop year, financial year or academic year.

Use of a hyphen between dates (e.g., 1960-1965) indicates the full period involved, including the beginning and end years.

Metric tons have been used throughout.

The following forms have been used in tables:

Three dots (...) indicate that data are not available or are not separately reported.

A dash (-) indicates that the amount is nil or negligible.

A blank indicates that the item is not applicable.

Totals may not add up precisely because of rounding.

Besides the common abbreviations, symbols and terms and those accepted by the International System of Units (SI), the following abbreviations and contractions have been used in this report:

CCCN	Customs Co-operation Council Nomenclature
EEC	European Economic Community
FAO	Food and Agriculture Organization
GATT	General Agreement on Tariffs and Trade
GSP	Generalized System of Preferences
mfn	Most favoured nations
NTM	Non-tariff measures
OECD	Organization for Economic Co-operation and Development
SITC	Standard International Trade Classification
UNCTAD	United Nations Conference on Trade and Development
UNSO	United Nations Statistical Office

1. INTRODUCTION

Agricultural products assume a position of major importance in the production and trade of developing countries. This is particularly true of vegetable oils and related products in which the developing countries now enjoy half of the world market, and which account for about 10 per cent of their earnings of foreign currency from the exports of agricultural products. Developing countries have long been important oilseed suppliers, but their success in establishing processing activities has come only recently. Since the expansion of processing capacity represents an important potential source of employment and foreign exchange earnings, achieving greater access to developed country markets through the liberalization of barriers to trade is an important issue in developing countries.

This study determines the incidence of tariff and non-tariff measures imposed against developing country exports of oilseeds, vegetable oils and related products. A list of products covered in the study is presented in the annex, table A.l. The investigation proceeds in four parts. First, recent changes in levels and patterns of world trade in these products are examined. Major importers and exporters are identified. Chapter 3 covers tariff and non-tariff obstacles to trade; nominal tariff levels are compared at two processing stages and the phenomenon of tariff escalation is discussed. The frequency with which various non-tariff measures are used to restrict imports is also examined and the destabilizing influences of these measures on world price levels are discussed. In order to assess the magnitude of the barrier imposed by tariffs, estimates are made in chapter 4, of the net potential trade expansion effects which would accrue to developing countries if eight major developed market-economy country importers eliminated tariffs; the liberalization of non-tariff barriers is also discussed. Major findings and conclusions are summarized in the final section.

2. INTERNATIONAL TRADE IN OILSEEDS, VEGETABLE OILS AND RELATED PRODUCTS

World trade in oilseeds, vegetable oils and related products amounted to more than \$US 20 billion in 1981. Table 1 summarizes recent changes in current values of exports and imports of these products by major country groups. Also shown are country-group shares in world exports and imports. These shares changed considerably in the period 1975-1981. In particular, the share of developing countries in world imports of oilseeds and oils increased drastically from 5 to 14 per cent and from 34 to 48 per cent respectively. In contrast, the share of these countries in world exports of oilseeds decreased from 28 to 18 per cent, while the share for oils and related products increased from 42 to 51 per cent. These changes are the result of two phenomena: an important increase in the oil-processing capacity in developing countries and a steady increase in per capita consumption of vegetable oils in these countries, coupled with a relatively constant consumption in developed countries.

Over the 1975-1981 period, developing country oilseed imports in current prices grew almost five-fold - from \$US 325 million to \$US 1,593 million, while imports of vegetable oils and products doubled. This represents an annual import growth rate of 30 per cent for oilseeds and 14 per cent for oils and products. Corresponding annual growth rates in developing country imports of all products and of all agricultural products are 18 and 14 per cent respectively. The annual oilseed export growth rate is only 4 per cent while the oils growth rate is 13 per cent, exceeding the world oils export growth rate by 4 per cent.^{1/} Corresponding annual rates of growth in developing country exports of all products and of all agricultural products are 17 per cent and 10 per cent respectively. Developing countries now enjoy half of the world market in vegetable oils and related products. Benefits from this increased share of world oil markets are not spread evenly across oil

- 2 -

^{1/} Corresponding growth rates in real terms (constant prices) are given in table 2 and in <u>The vegetable oils and fats industry in developing countries</u>: <u>outlook and perspectives</u> (UNIDO/IS.477), table 3.2. Thus, for example, the amount of seeds exported from the developing countries actually declined, reflecting the countries' increased capacity to process the seeds into oil that is then exported.

								Economic	Groupines as	
TRADE	1975	1976	1977	1978	1979	1980	1981			
••••••								1976	1 1001	
A. IMPORTS								+	1701	
Ollaseda										
World	6.099.9	6.381.3	7.811.3	8 424 7	10 464 3	10 712 8	11 799 4	1 100	1	
DHEC's	5.251.7	5 098.7	6 452 7	6 861 7		10,712.3	11,732.9	100	100	
Developing	125 5	AS6 5	644 4	809 7	0,217,3	0,310.7	0,014.9	00	15	
Socialist Countries:	563.5	410.1	344.0	003.7	000.0	1,000.2	1,592.7	1 2	14	
Ania and Fasters Furance	522.2									
Asia and Eastern Europe	520.7	820.1	816.0	123,3	1,358.4	1,116.0	1.324.8	9	11	
Vegetable Oils and Products								ļ	1	
World	5.295.4	4.353.1	5.885.3	6.591.8	8.509.4	9.689.1	8.446.7	100	100	
DHEC'S	3,158.8	2.588.8	3.194.9	3.443.0	4.300.6	4.345.1	3 681 8	60		
Developing	1.803.9	1.490.9	2.240.8	2.734.9	3.595.5	4 605 5	A 765 1	34		
Socialist Countries:					-,	4,003.3	4,033.3	1 34	••	
Asia and Eastern Europe	332.7	273.4	449 6	413 9	610 1	778 6	700 6			
				415.7	047.3	/30.3	707.0	•	5	
Total										
World	11.395.3	10.734.4	13 698 6	15 016 5	18 071 8	20 402 0	20 170 1	1 100	1	
DMEC's	8 412 5	7 687 5	0 647 6	10 304 3	10,773.0	20,402.0	20,1/9,1	100	100	
Developing	2 129 A	1 047 4	3,047.0	10,304.7	12,317,9	12,033.8	12,496.7	1 74	62	
Socialist Countries:	e,,	**241.4	21103.4	3,344.0	4,404.2	2,021.8	5,648.0	19	28	
Agia and Restorn Runana		1 000 C						1		
Wate and Secreth Entope	055.4	1,033.3	1,203.0	1,16/.2	1,971.7	1,854,4	2,034.4	7	10	
B. EXPORTS]		
Ollseeds]		
World	5,321.8	5,910.5	7,348.5	8,123.6	9,443.2	9.546.4	10.407.4	100	100	
DNEC's	3,660.6	4,109.8	5,430.2	6,612.8	7.493.4	7.638.2	8.196.8	69	70	
Developing	1,471.9	1,653.6	1,777.9	1,402.4	1.721.1	1.722.8	1.848.8	28	1 18	
Socialist Countries:							-,		10	
Asia and Eastern Europe	189.3	147.1	140.4	108.4	228.7	185.4	361.8	1 1	1 1	
Vegetable Oils and Products										
World	4,730.5	4,277.4	5,838.7	6,607.3	8.600.4	8.778.7	8 046 2	100	100	
DNEC's	2,228.4	1,917.6	2.647.6	3.176.1	3.874.6	A 174 2	3 633 9	1.00	100	
Developing	1,988.4	2,038.0	2.817.4	3,130,9	4, 191 4	4 336 1	J,033,3	1 12	43	
Socialist Countries:		•				41330.1	4,033.0	1 *2	51	
Asia and Eastern Europe	513.7	321,8	373.7	300.3	332.4	268 A	317 1			
	1		• •			20014	311.1	**	•	
Total	1							ļ	J	
World	10,052.3	10,187.9	13,187.2	14.730.9	18.043.4	18 326 1	18 451 4	1 100	1	
DNECS	5,889.0	6.027.4	8.077.7	9.788 9	11 368 0	11 812 4	11 430 1	1 100	100	
Developing	3,460.3	3.691.6	4.595.4	4.533 3	6 314 4	11,010,4	11,030.1	24	64	
Socialist Countries:					*1*14.3	0,000,9	3,744.0	34	32	
Asia and Eastern Europe	703.0	468.9	51A 1	408 7	641 1		(A		1	
- ··········	1		*****		201'T	427.0	6/8.9	1 7	I 4	

<u>Table 1</u>								
Trade in oilseeds,	vegetable oils and products,	1975-1981						
(Current	value in million US dollars)							

Source: FAO Trade Yearbook, various issues, and special calculations by the UNCTAD Secretariat. Noles: Product coverage is identified in Annex Table A-2. Differences in export and import figures are due to (a) the time lag between importing and exporting, and (b) different reference periods used by different countries.

1 ω

7

4

1

developing countries. Among the major producers, the highest annual export growth rates in vegetable oils are enjoyed by Argentina (25 per cent), Brazil (24 per cent), the Republic of Korea (66 per cent) and the Philippines (15 per cent). More than forty per cent of world vegetable oil exports are accounted for by five countries: Argentina, Brazil, Malaysia, the Philippines and Singapore.

Importers		Developed market-	Developing
Exporters	World	economy countries	countries
Oilseeds			
Developed market-economy countries	9.5	8.5	17.1
Developing countries	-2.2	-6.7	-9.9
Vegetable oils			
Developed market-economy countries	11.5	7.2	15.5
Developing countries	11.6	2.1	23.4

Table 2. Developing and developed market-economy country exports of oilseeds and vegetable oils, 1975-1981 (estimates of the real annual growth rates)

Source: UNIDO estimates of chain-linked Fisher unit value indices computed from UNSO trade data and <u>United Nations Yearbook of International</u> <u>Trade Statistics data on current values.</u> See table 3.2 of <u>The vegetable oils</u> and fats industry in developing countries: <u>outlook and perspectives</u> (UNIDO/IS.477).

Table 2 presents estimates of the real annual growth rates, that is growth rates in values in constant (1975) prices. For technical reasons these estimates could only be computed for certain trade flows which, however, account for the bulk of trade in oilseeds and oils. An increased demand for oilseed for local processing is evident from the very high developing country growth rate in oilseed imports from developed market-economy countries (17.1 per cent) and negative (-6.7 per cent) growth rate in oilseed exports to developed market-economy countries. On the other hand, the increasing consumption of oils, and in particular that which could not be covered by domestic production, was demonstrated by the very high growth rates of vegetable oil imports from both developing (23.4 per cent) and developed market-economy countries (15.5 per cent). Developed country imports of vegetable oils from developing countries grew at only a 2.1 per cent annual rate, since per capita consumption of oils in the former has remained constant and the home processing of oils is encouraged under protection.

Table 3 indicates the relative importance in world trade of each oilseed and vegetable oil within its product group. Products are ranked according to the percentage of 1981 world trade value they accounted for in their respective groups. Soya beans dominate the oilseed group - accounting for more than 70 per cent of the value of oilseed trade. Groundnuts, rape and mustard seed and sunflower seed are of secondary importance. Together they comprise 24 per cent of the value of world trade in oilseeds. The vegetable oils of major importance are soya bean oil and palm oil, which account for 23 per cent and 22 per cent of the value of vegetable oil trade.

	World	export		World export		
	value (j	per cent)	Vegetable	value (p	er cent)	
Oilseeds	1975	1981	oils and products	1975	1981	
Soya beans	69	71	Soya bean oil	20	23	
Groundnuts	9	8	Palm oil	20	22	
Rape and mustard seed	7	8	Vegetable oils and			
Sunflower seed	2	7	fats processed	10	13	
Linseed	2	2	Coconut oil	9	9	
Sesame seed	2	2	Sunflower oil	11	9	
Copra	5	1	Rape and mustard oils	5	6	
Palm nut kernels	1	0.3	Olive oil	7	6	
Cottonseed	1	0.3	Groundnut oil	7	4	
Castor beans	0.4	0.2	Cottonseed oil	5	3	
Oilseeds, flour,			Palm kernel oil	2	3	
meal, n.e.c.	1	1	Linseed oil	4	2	
Total	100	100	Total	100	100	

Table 3. Relative importance of products

Source: FAO Trade Yearbook, various issues and special calculations by the UNCTAD secretariat.

- 5 -

3. OESTACLES TO TRADE IN OILSEEDS, VEGETABLE OILS AND RELATED PRODUCTS

3.1 Tariffs

This section examines the level and structure of nominal (ad valorem) tariff rates facing developing country exports of oilseeds, oils and related products in markets of selected developed and developing country importers. Nominal tariffs indicate the extent to which tariffs can raise competitive import prices in the importing market over the free trade price. Tariff structure refers to the relative size of tariffs at different stages in the processing chain. Industrial nations escalate their tariff structure according to the fabrication stage of each competitive import. Raw materials enter virtually duty-free. Higher tariffs are set on intermediate products, with even higher duties assessed on final products. When nominal tariffs rise with the fabrication stage, effective protection rates accorded to value-added in the home production activity will be much higher than a comparison of nominal tariffs indicates. Tariff escalation inhibits the development of final processing activities in developing countries by encouraging the export of products in less processed form. The impact of the Generalized System of Preferences on tariff escalation will also be examined, since developing countries had hoped this scheme, granting them preferential tariff rates on some products, would nullify the tariff escalation pattern.

Fabrication stages for vegetable oils and products are well defined. Oilseeds are cleansed and dehulled to yield a kernel, which is then pressed to extract oil. Subsequent stages involve refining the crude oil. During the refining process, crude oil is subject to degumming, deacidification, bleaching and deodorizing. Phosphatides, fatty acids, sugars and a variety of other materials are extracted. Some oil is modified via fractionization, hydrogenation and fat-splitting to yield edible oils, fats and various chemicals. Since international trade statistics obscure these refining stages, the present study will divide the process into two production stages: oilseeds and vegetable oils and related products. Table 4 provides information on tariffs applied in major developed country markets. Included in this table are only those countries for which detailed data on tariffs and trade statistics at the disaggregated tariff level are reported by the GATT secretariat on magnetic tapes. To evaluate the effects of the GSP scheme on tariff escalation, tariff rates in column 1 of table 4 were calculated as a weighted average of tariff line level GSP rates of duty, using each country's imports as weights. Figures in the second column were arrived at in a similar manner, but most-favoured-nation (MFN) tariff rates were used. Column 2 is therefore applicable to developed country exporters, or developing countries who do not benefit from the GSP scheme. While preference-giving countries often use limitations such as tariff quotas, maximum country amounts or the escape clause to reduce the effective coverage of the GSP scheme, these limitations were not a constraint for oilseed, oils or related products in 1980.

An examination of nominal tariff rates, arranged by fabrication stage in table 4, indicates that the GSP beneficiaries face tariffs on oilseed exports ranging from zero per cent in the EEC, Norway, Sweden and the United States, to 2.1 per cent in Japan, while GSP non-beneficiaries face zero tariffs on oilseed exports in the EEC, Norway and Sweden, with a high rate of 5.1 per cent in the United States. Vegetable oils and products tariffs faced by GSP beneficiaries range from zero per cent in Sweden to 8.6 per cent in Switzerland. The corresponding range for GSP non-beneficiaries is from 1.2 per cent in Finland to 9.6 per cent in the EEC. Beneficiaries of the GSP face higher vegetable oils and related products tariffs than non-beneficiaries in two markets: Finland and Switzerland. However, beneficiaries face escalated tariffs in all eight markets, while non-beneficiaries face escalated tariffs in all but the United States. The largest spreads between tariff rates on the two processing stages are found by all exporters to the EEC and by developing country GSP beneficiaries in Switzerland. Since value-added in primary processing is low in comparison with the higher refining stages, we can expect this nominal tariff escalation to translate into high rates of effective protection. This indeed is confirmed by other empirical studies. For example, one of them finds that the effective tariff rate facing oil-bearing crops in the EEC, Canada and Japan, is 30 per cent higher than

- 7 -

Country/product sector	Imports from GSP beneficiaries	Imports from GSP non-beneficiaries
Austria		-
Oilseeds Vegetable oils and products	0.1 0.3	1.1 3.0
European Community		
Oilseeds Vegetable oils and products	7.2	- 9.6
Finland		
Oilseeds Vegetable oils and products	1.1 4.9	1.1 1.2
Japan		
Oilseeds Vegetable oils and products	2.1 4.4	4.8 8.3
Norway		
Oilseeds Vegetable oils and products	- 1.5	- 3.1
Sweden		
Oilseeds Vegetable oils and products	-	_ 2.7
Switzerland		
Oilseeds Vegetable oils and products	0.1 8.6	0.2 4.9
United States		
Oilseeds Vegetable oils and products	- 1.1	5.1 3.5

Table 4. Average tariff rates facing cilseeds, vegetable oils and related products in major developed markets

Source: UNCIAD data base on trade measures.

Γ.

nominal tariff, while the effective tariff on cottonseed oil is 420 per cent higher; on soya bean oil it is 62 per cent higher and on other vegetable oils 175 per cent higher. $\frac{2}{}$

An important point which needs to be mentioned in the context of tariff escalation is that in order to assess its influence on developing country exports, consideration must be given to underlying demand conditions. Simply observing whether tariffs rise or fall, or even remain constant, in the movement from primary to processed products is not sufficient. Specifically, in evaluating the impact of tariff escalation, account has to be taken of import demand elasticities. If import demand elasticities tend to move inversely with the stage of processing, then the escalating tariff (or non-tariff) structures do not necessarily indicate a bias against processed goods. The overwhelming evidence from numerous studies that have estimated developed countries' import demand elasticities show, however, that these in fact increase with the degree of fabrication. For example, in the case of vegetable oils, estimates of the import price elasticities increase from about 0.4 per cent for oilseeds to about 1.14 per cent for processed oils. $\frac{3}{2}$ Consequently, a significant de-escalation of tariffs, or other forms of trade barriers, is required in order that there not be a bias against trade in processed goods.

Given the levels of tariff aggregation used in the national tariff schedules of developing countries, a detailed analysis of tariff escalation is not possible. However, unweighted tariff averages can be constructed for oilseeds, oils, fats and animal feed imports for a number of developing countries. Such tariff rates are presented in table 5. The rates shown here are generally much higher than the corresponding nominal tariff rates in developed market-economy countries listed in table 4.

3/ R. Stern, J. Francis and B. Schumacher, <u>Price elasticity in</u> international trade, London, 1976.

- 9 -

^{2/} United States International Trade Commission, <u>Protection in major</u> trading countries, Investigation No. 332-65, Washington, 1975. See also Alexander J. Yeats, "Effective protection for processed agricultural products: a comparison of industrial countries", <u>Journal of Economics and</u> <u>Business</u>, Fall 1976, p. 35.

Region/country	Year	Tariff
Africa		
Egypt	1977	10.8
Ghana	1977	26.8
Ivory Coast	1977	8.7
Malavi	1977	3.1
Mauritius	1979	5.3
Могоссо	1978	17.9
Tunisia	1977	24.0
Zaire	1978	7.5
Asia		
Cyprus	1978	5.2
India	1976	61.9
Republic of Korea	1976	32.9
Pakistan	1977	55.5
Philippines	1977	46.4
Americas		
Argentina	1979	10.8
Bahamas	1977	20.9
Bolivia	1977	10.6
Brazil	1977	35.1
Colombia	1977	16.7
Jamaica	1976	9.2
Paraguay	1978	17.0

Table 5. Average ad valorem tariff rates on oilseeds and oils* in selected developing countries

* Including animal fats.

Source: National tariff schedules.

3.2 Non-tariff measures

Since the protective effect of tariffs is nowadays seen by importing countries as inadequate measures for protection and since tariffs are in any case difficult to manipulate in a quick and efficient manner owing to legal constraints, governments are relying increasingly in their trade policies on various non-tariff measures. Further obstacles are placed in the way of international trade by large private companies operating in a manner that hinders other traders' access to the market. The concept of non-tariff measures (NTM) embraces all types of governmental non-tariff actions which have a potential effect on trade, without prejudging the motivation for their application, their conformity or otherwise, with domestic or international law, or their effect on trade.^{4/} What is especially striking about the current array of non-tariff measures (NTMs) is the wide variety and multiplicity of objectives and effects. Some of these measures are designed for direct intervention in trade, while some are designed for other purposes but can affect trade in an indirect way. Both these groups have a dual negative influence on trade. They distort trade flows and they create uncertainty, thus impairing the formulation of export strategies and, by implication, investment strategies; such strategies can indeed only be satisfactorily formulated in the light of a substantial degree of certainty concerning trading conditions.

A large number of non-tariff measures are applied to imports of oilseeds, vegetable oils and products in markets of developed and developing market-economy countries. Analyses of non-tariff measures applied in 23 developed market-economy countries and 22 developing countries have been made.^{5/} Six of these countries appear not to use non-tariff measures in respect of vegetable oil imports (Chile, the area of Hong Kong, Indonesia, Ivory Coast, Philippines and Sri Lanka), but the remaining 39 apply a large variety of controls. Although the effects of non-tariff measures on import values and price levels are extremely difficult to quantify, an indication of

^{4/} For a discussion on the non-tariff measure classification scheme and a description of the UNCTAD data base on non-tariff measures (from which information for the present discussion were drawn), see UNCTAD, <u>Non-tariff</u> <u>barriers affecting the trade of developing countries and transparency in world</u> trading conditions: the inventory on non-tariff barriers, TD/B/940.

^{5/} Included in these analyses are: Australia, Austria, Belgium, Canada, Denmark, Finland, Federal Republic of Germany, France, Greece, Ireland, Israel, Italy, Japan, Luxemburg, Netherlands, New-Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States, as well as Algeria, Brazil, Cameroon, Chile, Guatemala, the area of Hong Kong, Indonesia, Ivory Coast, Kenya, the Republic of Korea, Malawi, Mexico, Nigeria, Pakistan, Peru, the Philippines, Saudi Arabia, Sri Lanka, Thailand, Tunisia, Turkey and Venezuela. The European Community Member States are treated separately, since they frequently use national NTMs in addition to measures applied at the European Community level.

their incidence pattern can be determined by comparing a frequency distribution of their applications on product groups by developed and developing countries.

Frequency indices presented in table 6 indicate the percentage of four-digit CCCN products covered by selected non-tariff measures. Included here are only the so-called direct import control measures, i.e. measures employed to restrict volume or price of imported products. These measures can also be called non-tariff barriers. Cross-country comparison of other measures cannot be attempted, since the country and product coverage of the information in the UNCTAD data base is - in their case - not complete and therefore such a comparison would be biased. When measures are ranked by the values of frequency indices in developed and developing countries, some important differences in the pattern of their application emerge. Firstly, developed countries rely on a wider variety of non-tariff measures. The ones used most freqently are licensing and quotas (they affect 22.2 per cent of oilseed and oil products), followed by variable levies (9.7 per cent). Secondly, developing countries also place heavy reliance on volume controls, including prohibition, but do not rely on price-controlling measures, since they have a greater interest in importing products at the lowest possible cost.

		Frequency of application					
Importing markets	Heasure	All products	Oilseeds	Oils and products			
Developed countries	Prohibition	1.9	2.2	1.9			
-	Quota and licensing	22.2	21.7	22.4			
	Automatic authorization	4.8	6.5	4.3			
	Variable levy	9.7	-	12.4			
Developing countries	Prohibition	11.1	9.1	11.7			
	Quota and licensing	22.7	34.1	19.5			
	Automatic authorization	-	-	-			
	Variable levy	-	-	-			

Table 6. Selected direct import control measures applied in 23 developed market-economy countries and 22 developing countries, on oilseeds and their products (percentage)

<u>Source</u>: UNCTAD data base on governmental measures of a product-specific nature.

- 12 -

Figures in table 6 are high in comparison to frequency indices for volume-restraining measures on agricultural products and all products presented in a recent UNCTAD study.^{6/} Volume restraints are applied to between 20 and 33 per cent of agricultural products in developed countries, between 21 and 28 per cent of developing-country agricultural products, from 6 to 39 per cent of all developed country imports and between 17 and 47 per cent of all developing country imports.

Frequency indices may also serve as a rough approximation to the degree of non-tariff measure escalation by fabrication stage in vegetable oils production. Developing country non-tariff measures do not display a tendency to escalate by fabrication stage; in fact quotas and licensing are almost twice more frequent in the case of oilseeds than in the case of their products. In developed countries, however, the frequency of application of quotas, licensing and variable levies increases in the case of processed products. This phenomenon is consistent with the pattern of tariff escalation discussed earlier.

The above analyzed non-tariff barriers are accompanied by various other measures, two of which need to be mentioned here, as they occur with particular frequency. First, the various taxes or charges additional to tariffs of either import- or product-specific character, i.e. they apply to both imported and domestically-produced goods. According to the information contained in the UNCTAD data base, which, as mentioned, is not complete, these fiscal measures are used by at least 14 developed markat-economy countries, with a frequency (25.2 per cent) in excess of that calculated for quotas and licensing. At this point, it is perhaps relevant to note the intention of the European Economic Community to introduce a new tax on fats and oils which according to the FAO Intergovernmental Group on Oilseeds, Oils and Fats would be discriminatory and therefore "... would not be a tax on consumption

6/ See UNCTAD, Non-tariff barriers affecting the trade of developing countries and transparency in world trading conditions: the inventory on non-tariff barriers, TD/B/940.

- 13 -

but a new barrier to trade".^{7/} The second type of measure to be noted is the health and sanitary requirements. While the data base indicates that such measures are used in only a few countries, in this case the information available is particularly incomplete. In fact, it is well known that almost all countries apply sanitary regulations and that the severity of these requirements and the complicated procedures involved can be used to impede or even prevent inports.

An important shortcoming of the above analyses is that the measure used, i.e. the frequency index, does not permit evaluation of the differential impact of non-tariff barriers on different exporters. The results presented indicate the frequency of occurrence of the barriers but they do not show which countries face these barriers. To overcome this shortcoming, an evaluation of the trade covered by or rather, subject to selected non-tariff barriers was attempted. For technical reasons this exercise was limited to the imports of individual European Community Member States and to the group of four non-tariff barriers, namely prohibitions, quotas, discretionary licensing and variable levies. The import statistics employed were for 1980 while the data on non-tariff barriers are for 1983. All calculations were performed at the tariff level.

The results of this exercise reveal that about 4.5 per cent of the total European Community imports of oilseeds, vegetable oils and related products are subject to one or more of the measures analyzed. The share, however, is much higher in the case of imports from developing countries (7.5 per cent) than from the developed market-economy countries (2.9 per cent), or the socialist countries of Eastern Europe and Asia (less than 0.1 per cent). When the imports of individual European Community countries are studied, it is found that in Italy 30.1 per cent of imports from developing countries is covered by non-tariff barriers, while the corresponding share in imports from the developed market-economy countries is only 12.5 per cent. In France, this

^{7/} See report of the Intergovernmental Group on Oilseeds, Oils and Fats, Eighteenth Session, Rome, 20-24 February 1984, paragraph 20.

difference is less pronounced: 14.3 per cent and 13.9 per cent respectively. In the other 7 countries (Greece was not included in this exercise) only small values of imports are subject to non-tariff barriers.

Non-tariff measures pose an additional problem for developing countries by contributing instability to prices in world markets. Price instability is an issue of major importance to developing countries, since large variations in price create uncertainty, reduce export earnings, impair the financing of development programmes and create difficulties in servicing external debt. Fluctuations in supply and demand for agricultural products produce large price variations, since these schedules are price-inelastic. Table 7 provides some evidence on the degree of price instability for selected products of export interest to developing countries. Percentage changes in real prices in the first half of 1982 relative to various other years are presented for oilseeds and vegetable oils and for three other product groups. These figures indicate a substantial drop in oilseeds and oils prices in the first half of 1987, relative to other years. Other product groups also display wide price fluctuations over the same period.⁸/

Developed countries have responded to pleas from their producers and consumers who want stable prices by relying less on tariffs and more on non-tariff measures to achieve internal price stability. However, as table 8 indicates, non-tariff measures which achieve internal price stability accentuate instability elsewhere. When a domestic market is isolated from the impact of changing conditions in the world market, all the price-adjustment burden is forced upon the latter. The result is increased price instability in the world market.

When, for example, a cyclical decrease in world agricultural prices results from an oversupply of the goods in major importer countries, these importers can use various non-tariff measures in order to reduce imports. The

^{8/} See also figure 3.7 in <u>The vegetable oils and fats industry in</u> <u>developing countries: outlook and perspectives</u>, Sectoral Studies Series No. 13 (UNIDO/IS.477).

Table 7

<u>Changes in real prices of the principal primary</u> <u>commodities exported by developing countries:</u> first half 1982 compared with selected earlier years

	1053		wear prices a/ in ist half 1982 compared with;						
	1933	1963	1973 (Percent	1979 age chan	1980 ge)	1981	(s billion		
· · · · · · · · · · · · · · · · · · ·			. <u></u>		2-/				
boo	• •								
Cereals: Wheat	-36	-19	-41	-3	0	-6	0.8		
Maize	-46	-28	40	-9	-26	-19	1.0		
Rice	-48	-30	-56	-10	-23	-34	2.1		
Sugar b/	-13	-61	-47	-9	-62	-39	9.2		
Beet and veal		+13	-42	-21	-9	-3	1.2		
Bananas	-23	-18	+25	+24	+20	+6	1.1		
ropical beverages									
Loffee	-34	+24	+9	-29	-12	+9	11.8		
Сосоа	-20	+7	-20	-46	-24	-10	2.8		
Tea	-50	-53	-11	-15	-8	-4	1.4		
egetable oilseeds									
nd olls									
Soya beans c/	-38	-26	- 56	-17	-7	-10	1.6		
Groundrut <u>c</u> /	-48	-24	-46	-30	-12	-35	0.4		
Copra	-58	-42	-53	-52	-21	-11	0.9		
Palm Oil	-34	-26	-34	-25	-8	-11	1.9		
Palm kernels <u>c</u> /	-21	-41	-46	-45	-12	-9	0.3		
gricultural raw									
<u>aterials</u>									
Cotton	-44	-21	-28	-10	-18	-14	3.4		
Jute	-71	-67	-48	-27	-1	-3	1.1 c/		
Sisal	-29	-49	-44	-18	-15	-5	0.3 c/		
Natural rubber	32	-31	-20	-16	-16	-21	4.3		
Hides & skins		-24	-54	-52	-16	+8	0.4		
Tropical timber		+49	-4	-3	-6	-2	6.9		
inerals, ores									
nd metals									
Copper d/	-34	-26	-59	-28	-27	-13	6.1		
Bauxite/alumina e/	-3	-7	+20	-9	-18	-11	1.9		
Iron ore		-26	-23	+3	-2	+5	2.9		
Manganese ore	-38	-22	+6	+17	+7	-3	0.2		
Tin d/	+92	+70	+37	-16	-15	-4	2.8		
Phosphate rock		+15	+28	+7	-17	-19	1.4		
OUTCES: UNCTAD. M	onthly	Commod	ity Pri	ce Bull	etin (va	arious issu	ESIS FAO-		

Nominal prices deflated by United Nations index of unit values of ∎∕ exports of manufactures from developed market-economy countries.

<u>Þ</u>∕ Free market price.

Including manufactures.

Ore and refined metal.

Price relates to aluminium. <u>e/</u>

- 16 -

4 - - resulting decline in world demand for these products would place downward pressure on world plices. When a reduced world supply drives world prices up, importers can relax their import volume controls. The resulting increase in world demand places upward pressure on world prices.

Table 8. The effects of trade policies on price instability in exporting and importing countries

Trade policy of importing country	Degree of price instability in comparison with the instability under free trade*				
Specific tariff	Same				
Ad valorem tariff	Larger				
Fixed quota	Generally larger				
Proportional quota	Generally larger				
No trade	Generally larger				
Price fixing	Smaller (= 0)				
Variable levy	Smaller				
Trade policy of exporting country					
Specific tariff					
Ad valorom tariff	Larger				
Fixed quota	Generally larger				
Proportional quota	Generally larger				
No trade	Generally larger				
Price fixing	Larger				
Variable levy	Larger				
	-				

* The use of the degree of price instability under free trade as a basis for comparison does not imply that the free-trade price variance is necessarily optimal in a welfare sense.

Source: M.D. Bale and E. Lutz, "The effects of trade intervention on international price instability", <u>American Journal of Agricultural Economics</u>, Vol. 61, No. 3, August 1979.

One non-tariff measure which is expecially noted for its influence in increasing world price instability in agricultural markets is the European Community's variable levy. $\frac{9}{}$ When world prices are below predetermined internal prices, stable prices are maintained by the use of a sliding-scale tariff (variable levy). As world prices fall, variable levies rise, depressing demand in the EEC and hence depressing world demand. The maintenance of stable internal prices on rare occasions when world prices are higher, exaggerates price movements in the other direction.

^{9/} For a discussion on the effects of variable levies on world price instability, see Gary P. Sampson and Alexander J. Yeats, "An evaluation of the common agricultural policy as a barrier facing agricultural exports to the European Economic Community", <u>American Journal of Agricultural Economics</u>, February 1977, p. 99-106 and Gary P. Sampson and Richard H. Snape, "Effects of the EEC's variable import levies", <u>Journal of Political Economy</u>, No. 88, 1980, p. 1026-1040.

4. POTENTIAL TRADE EXPANSION EFFECTS FROM TRADE LIBERALIZATION

While it is not possible, for technical reasons, to estimate the precise effects of the removal of tariff and non-tariff measures, a partial and tentative evaluation may be attempted. Specifically, the expansion of trade resulting from the elimination of tariffs may be assessed using a variation of a comparative-static partial-equilibrium model.

When importers remove the protection accorded to domestic producers by tariffs, they increase imports of non-GSP-covered products and GSP-covered products which faced non-zero preferential tariff rates in the base period. This increase in imports from both GSP beneficiaries and non-beneficiaries is known as trade creation. The degree of trade creation is determined by each product's price e'asticity of import demand, the degree of tariff-induced price change and the base period import level. A second trade expansion effect, known as trade diversion, represents a substitution of imports from GSP beneficiaries by imports from non-beneficiaries, due to the elimination of preference margins on GSP products. This worsens the relative competitive position of GSP beneficiaries. The extent of trade diversion depends on the price change induced by the elimination of preferential margin, the elasticity of substitution between two supply sources (those facing MFN rates and those receiving preferences) for each product and market, and base-period MFN import levels. While trade diversion is a positive outcome for GSP non-beneficiaries (mostly developed countries), its effect on GSP beneficiaries is negative.

Trade expansion effects which would result from a complete removal of tariffs by 8 major importers were estimated, in a manner described in the appendix to this study. $\frac{10}{}$ The results of this tariff elimination exercise are presented in table 9. Column 1 of this table shows the trade creation effects for developed market-economy countries. Trade creation effects for developing country beneficiaries and non-beneficiaries are listed in column 2.

- 19 -

^{10/} New Zealand is not included, since recent data on imports at the tariff-line levels were not available. Canada was excluded since it recorded a small value of trade in only one of the tariff-line level products.

Table 9

Estimated Trade Effects from a Complete Removal of Post-Tokyo Round Tariffs Facing Oilseeds, Vegetable Oil Product Exporters in Major DMEC Importers

(value in thousands of 1980 US dollars)

	Trade Creation		Trade Creation Trade Diversion			Net Trade Expansion				Net trade expansion as percentage of base-period imports			
	DNECa	DNECs	Developing countries			DME	2Ca	Develo count	ping ries	DAE	Cs	Develop countr	ing ies
			Low Estimate	High Estimate	Low Estimate	.High Estimate	Low Estimate	High Estimate	Low Estimate	High Estimate	Low Estimate	High Estimate	
AUSTRIA	1,520.7	39.7	795.1	1,322.1	2,315.8	2,842.8	-755.4	-1 282.4	4.0	4.9	-7.3	-12.3	
EEC	21,001.9	52,257.7	7,695.8	12,826.3	28,697.7	33,828.2	44,561.9	39,431.4	0.7	0.9	1.9	1.7	
FINLAND	1,145.9	238.9	11.3	18.8	1,157.2	1,164.7	227.6	220.1	0.7	0.7	2.1	2.1	
JAPAN	49,457.1	5,708.4	2,700.5	4,500.8	52,157.6	53,957.9	3,007.9	1,207.6	3.0	3.1	1.1	0.4	
NORWAY	299.4	58.6	59.8	99.3	359.2	398.7	-1.2	-40.7	0.3	0.4	0.0	-0.2	
SWEDEN	1,115.5	1.5	2,396.9	3,994.5	3,512.4	5,110.0	-2,395.4	-3,993.0	4.7	6.9	-6.3	-10.5	
SWITZERLAND	1,097.0	1,560.3	191.6	319.3	1,288.6	1,416.3	1,368.7	1,241.0	1.7	1.9	3.5	3.2	
UNITED STATES	1,345.1	2,181.1	2,813.4	4,689.0	4,158.5	6,034.1	-632.3	-2,507.9	4.6	6.7	-0.1	-0.5	
TCTAL	58,081.6	62,046.2	16,664.4	27,770.4	93,647.0	104,752.7	45,381.8	34,276.1	1.5	1.7	1.4	1.0	

Source : UNCTAD estimates.

Note : "Low estimate" is based on the low elasticity of substitution and "high catimate" is based on the high elasticity of substitution. (See Appendix)

- 20 -

A range of trade diversion estimates, corresponding to two different substitution elasticity estimates, is shown in the next two columns. These represent potential gains to GSP non-beneficiaries and potential losses to developing country GSP beneficiaries. The remaining columns summarize net trade expansion effects for each country grouping, followed by a comparison of these effects expressed as a percentage of 1980 base-period imports.

Results indicate that the erosion of GSP preference margins by the removal of the MFN tariffs, would have serious consequences for developing countries presently enjoying preferential status in markets of Austria, Norway, Sweden and the United States. Except for one product group of minor importance in Austria, these countries offer duty-free entry for those products covered by their GSP schemes. This is reflected in the relatively large trade diversion estimates, and developing countries face zero or negative trade expansion, depending on which estimate of the trade diversion high or low - is considered.

Developing countries would enjoy the higher net trade expansion effects in markets of the EEC and Japan. Over 60 per cent of GSP-covered products in the EEC, and nearly half of the CSP-covered products of Japan, have non-zero preferential rates which differ by 50 per cent or less from MFN rates. Preference margins are therefore small, and trade diversion is small relative to the trade creation effects for developing country exports to these markets.

Overall, when compared to the base period value of trade, the net results of this tariff removal exercise are marginal. The upper limit for developing country trade expansion is less than one-and-a-half per cent of 1980 base-period import values. There are a number of reasons for expecting small potential developing country net trade expansion effects. First, tariffs on these products are not very high and estimates shown include only net gains or losses accruing after the 1980 base period when tariffs were removed. Developing countries have already enjoyed benefits from earlier trade barrier liberalization and from the GSP programme which the tariff removal exercise here cannot indicate. Finally, a number of importers granted zero GSP rates on these products, hence the preference margin loss equals the MFN tariff rate.

- 21 -

A finding of small potential net trade expansion effects for developing countries, when tariffs are removed, is not an argument against trade barrier liberalization. The impact of tariff escalation by stage of fabrication and its impact on developing country exports and industrialization attempts, were discussed earlier. Trade liberalization entails favourable income effects which could not be included in this model. They would create additional trade expansion. Lastly, considerable gains could accrue to the developing countries through the eliminiation of the many non-tariff trade distorting measures.

These gains may indeed be quite considerable. This seems to be indicated by the comparison of our results of tariff liberalization with those obtained in another study which attempted an evaluation of 50 per cent reduction in all trade barriers.^{11/} These results suggest that the increase in total OECD imports would amount to \$US 1,000 million (in terms of 1977 dollars) and the increase in imports from the sample of 57 developing countries to \$US 300 million, that is, much more than indicated by our results. While Valdes is not accounting for tariff preferences, he is, on the other hand, covering only selected non-tariff measures and selected developing countries. It may therefore be concluded that the large difference between his and our results seems to point to the strong trade-restrictive influence of non-tariff measures.

11/ A. Valdes, Trade liberalization in agricultural commodities and the potential foreign exchange benefits to developing countries, International Food Policy Research Institute, Washington D.C., 1979.

- 22 -

5. SUMMARY AND CONCLUSIONS

This study examines the use of tariff and non-tariff measures to restrict imports of oilseeds, vegetable oils and related products from developing countries. Most developed nations levy zero or low duties on oilseeds, assessing higher duties on vegetable oils and products. Since value-added at the primary processing stage is low and as tariffs tend to escalate with the degree of fabrication, high effective rates of protection are encountered by developing country exporters to developed country markets. This tariff structure inhibits the development of final processing activities in developing countries. When GSP preferential duties are taken into account, the tariff escalation pattern remains unaltered.

An exercise to determine the potential net trade expansion effects of a complete removal of tariffs by eight major developed market-economy country importers provided some interesting results. First, the erosion of GSP preference margins by the elimination of tariffs would cause serious consequences for developing countries in the markets of Austria, Norway, Sweden and the United States, where GSP-covered products enter virtually duty-free and the trade diversion effects outweigh trade creation effects for developing countries. Second, the highest trade creation effects would be experienced in the markets of the European Economic Community and Japan, where GSP-covered products enjoy small preference margins. Finally, the overall, net, trade creation effects for developing countries are small. The upper limit for net trade creation is less than one-and-a-half per cent of developing country base-period import values.

Developed and developing countries make widespread use of non-tariff measures to restrict imports of oilseeds, oils and related products. Developed countries employ a greater variety of non-tariff measures than do developing countries. The most frequently-used non-tariff measures in developed countries are quotas, licensing and import charges. As it appears from the limited evidence available, the non-tariff barriers primarily affect those imports from developing countries. A high percentage of oilseeds and vegetable oils are covered by volume controls in both developed and developing countries. Both country groups make more extensive use of volume controls on oilseeds and oils products than on all other agricultural products or on all manufactured and agricultural products taken together. Measures which achieve a considerable degree of internal price stability in developed countries pose an additional problem for developing country exporters who face, as a result of lower world demand, lower prices in world markets and increased instability of prices.

Considerable gains could accrue to developing countries through the removal of the many non-tariff barriers which exist in developed countries. Some studies suggest that developing countries could then enjoy significant increases in their export earnings; they would also benefit from higher world prices for products of export interest to them and from greater stability of world prices.

The greatest scope for developing countries to increase their exports of oilseeds, oils and products may lie in trade between the developing countries themselves. These countries are experiencing the highest export and import growth rates. Per capita consumption of vegetable oils is growing here as well. To pave the way for more vigorous growth in inter-developing-country trade, considerable progress could be achieved by the removal of the relatively high tariff rates which prevail and also by the removal of the many non-tariff measures applied by the developing countries as well.

The findings of this study suggest several courses of action. First, the issue of tariff escalation in developed countries must be addressed. Previous multilateral rounds of trade liberalization and the Generalized System of Preferences left the pattern of tariff escalation virtually intact. The complete removal of tariffs by developed countries would not have its main impact through an increase in the volume of trade, but would at least put an end to tariff escalation and the consequent deleterious effects on the attempts of developing countries to capture the high value-added benefits associated with final processing stages of manufacture. An alternative way to end tariff escalation faced by developing countries would be to expand the GSP coverage to include all processed products of export interest to them. Second, developed countries should strictly adhere to their commitments made, at UNCTAD VI to halt protectionism, not to impose new quantitative restrictions and measures having similar effect, and to work systematically towards reducing and eliminating existing ones.^{12/} By so doing they would also follow the FAO Guidelines for International Co-operation in the Oilseeds, Oils and Oilmeals Sector.^{13/} Lastly, since one of the results of the current wave of protectionism in the world today is increased uncertainty, efforts should be made to introduce more transparency into trading conditions. This can be achieved by increasing the exchange of information on existing and proposed measures, laws, regulations and procedures governing the imports of oilseeds, vegetable oils and related products. Such an exchange could be carried out within those facilities already existing at the international level, and in particular through the use of the UNCTAD data base on trade measures.

12/ UNCTAD resolution 159 (VI) paragraphs 1 and 2.

13/ Ibid., paragraph D(i) and (ii).



APPENDIX

Methodology employed to estimate net trade expansion effects of tariff removal

Estimates of net trade expansion effects available to developing and developed market economy countries from a removal of tariff protection by eight major importers include only net gains and/or losses accruing to exporters after tariffs are eliminated in the 1980 year-base period. Previous benefits experienced in earlier periods from tariff liberalization and the GSP programmes are not included.

Trade creation effects are calculated in the usual way, applying import demand price elasticities (E) to the percentage change in price (dt/(l+t))induced by nominal tariff (t) removal, and multiplying this product by the value of base-period imports (Mo), to yield the resulting change in imports (dM), using:

$$dM = Mo \frac{E_{dt}}{(1+t)}$$
(1)

Import increases from non-beneficiaries of the Generalized System of Preferences are arrived at by substituting the MFN tariff rate $(t_{\rm MFN})$ and the MFN base period import value $(M_{\rm MFN})$ for (Mo) and (t) in equation (1) above. Gains for developing country GSP beneficiaries who faced non-zero GSP duties in the base period are obtained from equation (i) as well, by substituting the base-period GSP import level $(M_{\rm GSP})$ for (Mo), and employing $(dt_{\rm GSP}/(1+t_{\rm MFN}))$ as the tariff induced price change. The GSP duty is $(t_{\rm GSP})$. Since the degree of substitutability between domestically produced goods and imports in the importer is assumed to be the same for each import source, the same import demand elasticity can be used for each source of supply.

Trade diversion is calculated from:

$$dM = M_{MFN} \frac{Ec \ d(t_{MFN} - t_{GSP})}{(1+t_{MPN})}$$
(2)

where $(t_{MFN}-t_{GSP})$ is the preference margin, and (Ec) is the elasticity of substitution between two supply sources (those facing MFN rates and those receiving preferences) for each product in each market. Preference-granting countries typically use limitations, such as tariff quotas, maximum country amounts, or the right to invoke the escape clause (EEC and Japan) to reduce the effective coverage of the GSP scheme. However, adjustments to trade creation for ceilings or limitations on GSP trade need not be performed in the present study. These limitations were not a constraint for products covered in 1980.

All variables used in the present study, with the exception of elasticities, were available from UNCTAD data files. Elasticity estimates employed were those used in a recent study which estimated the effects of the Tokyo Round on trade flows.^{1/} A consistent set of own-import demand price elasticities for vegetable oils and fats were available for each importer, but not at the tariff line level of aggregation. Import demand elasticities were not available for oilseeds. Own-elasticity import demand estimates for fats and oils were applied in each country to all product groups at the CCCN tariff line level of aggregation.

Substitution elasticity estimates are subject to even less availability, and in addition, are considered to be less reliable than import demand price elasticity estimates. A probable range of trade diversion estimates was generated using one high (-2.5) and one low (-1.5) substitution elasticity estimate. $\frac{2}{}$ Calculations were performed at tariff line level and results were summed to yield the estimates presented in table 7.

1/ See William R. Cline, Noboru Kawanabe, T.D.M. Kronsjö and Thomas Williams, <u>Trade negotiations in the Tokyo Round: a quantitative</u> assessment, The Brookings Institute, Washington, D.C., 1978, p. 58.

2/ Cline, <u>et al.</u>, <u>op. cit.</u>, employed a substitution elasticity estimate of (- $\overline{2.5}$). The substitution elasticity estimates used in the present study fall within the range of estimates in the literature surveyed by Cline. This partial equilibrium approach could not be modified to take into account second-order prize and income effects, the impact of non-tariff measures, increasing per unit production costs, or the possibility of differences in substitution elasticities between country pairs. Nevertheless the results in table 7 are considered to be the best available, but should still be interpreted with the afore-mentioned shortcomings in mind.

Table A.l. Product coverage

-

V.

SITC	CCCN	Product
(Rev. 2))	
Oilseeds	and oleagino	us fruit
222.1	12.01A	Groundnuts (peanuts), green, whether or not shelled
222.2	12.01D	Soya beans
222.3	12.01F	Cotton seeds
222.4	12.01H	Sunflower seeds
222.5	12.011	Sesame (sesamum) seeds
222.6	12.01J	Rape and colza seeds
223.1	12.01B	Copra
223.2	12.01C	Palm nuts and palm kernels
223.4	12.01E	Linseed
223.5	12.01G	Castor oil seeds
223.8	12.01K	Oil seeds and oleaginous fruit, n.e.s.
223.9	12.02	Flours or meals or oil seeds or oleaginous fruit.
223.7	12.02	non-defatied (excluding mustard flour)
		non delatted (exclosing mostard field)
Fired ve	astable oils	and fats
473 7	15 074	Sova hean oil
423.2	15 07B	Cotton seed oil
423.5	15.070	Croundrut (negnut) ail
423.4	15.070	Olive eil
423.5	15.075	Curflever cood cil
423.0	13.07E	Sunflower seed off
423.9	16 075	Utner soft fixed vegetable offs
	15.0/F	kape, colza and mustard olls
	15.0/L	Sesame (sesamum) oll
696 1	15 070	Timened ail
424.1	15.07G	
424.2	15.0/H	raim oil Cocorret (corre) oil
424.3	15.0/1	Coconut (copra) oli
424.4	15.0/J	raim kernel oli
424.5	15.0/K	Castor 011
424.9	15.07M	Fixed vegetable oils, n.e.s.
	· · · ·	
Vegetabl	e oil product.	B Toile sained and marchable bailed avidined
431.1	15.08	Ulis, animal and vegetable, bolled, oxidized,
		dehydrated, sulphurized, blown or polymerized by neat
		in vacuum or in inert gas, or otherwise modified
431.2	15.12	Animal or vegetable oils and rats, wholly or partly
		hydrogenated, or solidified, or hardened by any other
		process, whether or not refined, but not further
		prepared
431.3	15.10A	Fatty acids, acid oils and residues resulting from
	15.17	the treatment of fatty substances or animal or
	15.16	vegetable waxes; degras
431.4	15.15	Waxes of animal or vegetable origin
	15.16	

1

- - - -

For the guidance of our publications programme in order to assist in our publication activities, we would appreciate your completing the questionnaire below and returning it to UNIDO, Division for Industrial Studies, P.O. Box 300, A-1400 Vienna, Austria

QUESTIONNAIRE

Tariff and non-tariff measures in the world trade of oilseeds, vegetable oils and related products

.

		(please check yes	appropriate box) no
(1)	Were the data contained in the study usefu	1? ///	<u> </u>
(2)	Was the analysis sound?	<u> </u>	<u> </u>
(3)	Was the information provided new?	<u> </u>	<u> </u>
(4)	Did you agree with the conclusion?	<u>/</u> /	<u> </u>
(5)	Did you find the recommendations sound?	<u> </u>	<u>/</u> /
(6)	Were the format and style easy to read?	<u> </u>	<u>/</u>]/
(7)	Do you wish to be put on our documents mailing list?	/	/7 e specify nterest
(8)	Do you wish to receive the latest list of documents prepared by the Division for Industrial Studies?	<u>_</u> _	<u>/</u>]/
(9)	Any other comments?		
Name			

(in capitals)	• • • • • • • • • • • • • • • • • • • •
Institution: (please give full adress)	
Date:	

