

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

Agriculture in the Uruguay Round: Sanitary and Phytosanitary Measures

L.A. Petrey and R.W.M. Johnson*

In this paper the sanitary measures for the meat trade in Pacific Rim countries are assessed from the perspective of the current GATT negotiations on sanitary and phytosanitary (SPS) measures. These negotiations include harmonisation of standards, greater transparency of domestic technical regulations, better risk assessment, promoting area freedom and improved dispute settlement procedures. It is concluded that greater coordination of SPS measures can overcome the potential misuse of some domestic policy sanitary instruments that impede international agricultural trade.

tic producers at the expense of consumers and overall economic welfare. However, the GATT Articles recognise that measures necessary for animal and human health can be justified. The negotiations taking place under the aegis of the Uruguay Round are thus aimed at greater uniformity and openness in SPS measures, which, backed by appropriate scientific evidence, could result in considerable expansion in trade opportunities.

1. Introduction

An important component of the current General Agreement on Tariffs and Trade (GATT) negotiations is the negotiation of new agreements on sanitary and phytosanitary measures (SPS) affecting international trade. Sanitary measures are domestic regulatory actions taken to safeguard human and animal health, and phytosanitary measures are similiar actions in regard to plant health. The aim of the GATT negotiations during the present Uruguay Round is to bring all measures affecting import access and export competition under strengthened and more operationally effective GATT rules and disciplines (MacLaren 1991). In particular it is hoped to bring about an improvement in the competitive environment by increasing discipline on the use of all direct and indirect subsidies and other measures affecting directly or indirectly agricultural trade; and minimising the adverse effects that sanitary and phytosanitary regulations and barriers can have on trade in agriculture (Miller 1986, p.113).

The SPS measures have the potential to act as important nontariff barriers to international trade. They can provide protection to domes-

2. Background

The GATT Articles, adopted by the contracting parties in 1947, explicitly recognised the possibility that domestic health, safety and environmental policies might override general attempts to lower trade barriers (GATT 1986). Article XI, headed General Elimination of Quantitative Restrictions, states:

No prohibitions or restrictions other than duties, taxes, or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any contracting party or on the exportation and sale for export of any product destined for the territory of any other contracting party. (GATT 1986, p.17)

Review coordinated by Bill Watkins.

^{*} Ministry of Agriculture and Fisheries, Wellington. The comments of S Rajasekar, of the Ministry's External Relations Section, and two referees are gratefully acknowledged.

Article XX, headed *General Exceptions*, provides:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:...(b) necessary to protect human, animal or plant life or health;...(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption; ... (GATT 1986, pp.37-38)

The GATT Articles recognise, in principle, two important conditions: first, the purpose of such measures must be to contribute to a legitimate domestic objective; and second, equivalent regulations must be applied to domestically produced products and imports (the principle of national treatment). Any restrictions imposed on foreign practices for environmental or health reasons must reflect such a domestic commitment, so that the exceptions cannot be misused as a disguised form of protection (Runge 1990).

Signatories to the Tokyo Round Agreement on Technical Barriers to Trade were required to notify other parties through the GATT Secretariat of products to be covered by proposed technical regulations if the regulation differed from international standards (GATT 1992, p.32). Since 1980 there have been 211 notifications in the area of environment protection and 168 notifications in the area of public health and safety. GATT (1992) note that as environmental awareness has increased, the use of health and safety standards has become more common. They suggest that both types of measure reduce international competitive-

ness through increased costs; health and safety standards through nontariff barriers and environmental standards through pollution charges and the like.

The thrust to the current negotiations on SPS measures is to establish a common set of rules and disciplines to guide the adoption, development and enforcement of such measures. The virtues of transparency are stressed in the context of countries having a greater understanding of other countries' problems and accepting a set of common standards. It is stressed that greater international "harmonisation" of standards, rules and procedures using international scientific organisations would produce trade benefits. Better frameworks for consultation and dispute settlement would also assist. Finally, the SPS negotiations have sought acceptance of the concept of equivalence whereby countries would have the opportunity to apply different sanitary and phytosanitary measures provided they can demonstrate to an importing country that its measures meet that country's appropriate level of protection (Rajasekar 1991).

These developments are consistent with an institutional view of international trade theory (North 1987). Expanding trade between countries is associated with rising transaction costs, unified political systems and effectively enforced rules and laws over a large area. Western societies, says North, are characterised by formal contracts, bonding of participants, guarantees, brand names, elaborate monitoring systems and effective enforcement mechanisms. Although the resources devoted to such transactions are high, the productivity gains from trade are even higher. SPS domestic measures are typical examples of unilateral policies to protect health whose reform and rationalisation can yield considerable benefits to trading countries if common rules can be agreed.

In the following section the arrangements for the meat trade between Pacific Rim countries are discussed as an example of existing bilateral sanitary agreements. This is followed by a review of the current GATT negotiations on a common set of rules and disciplines for SPS measures. The Pacific Rim sanitary arrangements for meat are then assessed from the perspective of the GATT SPS negotiations. It is concluded that while there is ample opportunity for potential barriers to trade to be created by domestic sanitary measures, international coordination and negotiation can overcome the misuse of domestic SPS policy instruments that impede agricultural trade.

3. Sanitary Measures in the Pacific Rim Meat Trade

The harmonisation of sanitary measures clearly involves considerable discussion and negotiation. The meat trade is an area where these standards have been developed to a high degree of understanding and international agreement. Petrey and Johnson (1992) have reviewed the import requirements for meat and meat products in the Pacific Rim countries and have examined the underlying reasons for the particular measures found to be in place.

Their methodology was to analyse the import restriction measures recorded in New Zealand for meat and meat products for the following 18 countries: Australia, Canada, Fiji, French Polynesia, Hong Kong, Indonesia, Japan, Malaysia, New Caledonia, New Zealand, Papua New Guinea, Philippines, South Korea, Taiwan, Thailand, Tonga, United States and Western Samoa. In this way, they suggest differences in existing standards can be brought out and opportunities identified for further negotiation and harmonisation.

An example of the sanitary requirements for meat and meat products exported from New Zealand and imported into Australia is shown in Table 1. The methodology employed fol-

lows closely that of Hillman (1978, 1991). The intention is to identify the policy or practice that actually has to be observed by exporters and the reasons lying behind the measures. The measures separate pigmeat from other meat, and edible byproducts from non-edible byproducts. For each group, the segregation of product is specified to prevent trans-shipment contamination. All product must be accompanied by a New Zealand Government health/veterinary certificate specifying freedom from disease affecting humans, freedom from harmful preservatives, freedom from animal disease, and guaranteeing product is of New Zealand origin. For pigmeat, the diseasefree status of the South Island from Aujesky's disease is recognised by an "area freedom" endorsement. For byproducts, the official certificate must be endorsed with the sterilisation procedures used in manufacture.

For other countries, there is a range of specific requirements additional to those contained in the general New Zealand official health/veterinary certificate that also must be endorsed. Additionally, some countries require a country-specific certificate rather than the general New Zealand Government certificate. A summary of these additional requirements by country is shown in Table 2. Further detail is available in the original paper (Petrey and Johnson 1992). The table shows that importing countries are generally sensitive to pigmeat disease status, to possible contamination of product in trans-shipment, to possible transmission of disease in byproducts, and to inspection requirements such as labelling and being able to identify the part against the whole.

This table also demonstrates, by the variety of certificates and endorsements required, the important issue that sanitary measures for meat are not uniformly developed throughout the Pacific Rim region. Generally speaking the measures are more comprehensive for countries with larger veterinary and inspection services. In some cases, labelling additional

Table 1: Nontariff Trade Measures for Meat Imported into Australia from New Zealand

Commodity	Policy or Practice	Reason for Trade Meas	
Fresh, chilled, frozen carcass meat, carton cuts, and manufactured products (edible); excluding pigmeat	Non-containerised:imports must be physically segregated on ships from product of non-NZ sources, and containers used must be cleansed to specification and sealed for the voyage.	Public health Animal health Truth in labelling.	
	Imports on aircraft must be double sealed in polythene wrappers and marked product of NZ, except carton which requires one wrapper suitable for incineration; transit of product for destinations beyond Australia, remaining on the aircraft, and that transhipped to another aircraft, requires no special packaging.		
	The above procedures do not apply to meat packed into sealed shipping containers (or reefers), cooked meat, or sealed cans.		
	Certification requirements: product derived from animals subject to ante and post mortem veterinary inspection and found free from disease and suitable for human consumption; product not treated with chemical preservatives or other foreign substances injurious to health; free from foot and mouth disease, rinderpest, anthrax, swine fever, swine vesicular disease and contagious bovine pleuropneumonia; derived from animals of NZ origin.	Public health Animal health	
Pigmeat	Only canned meat may be imported if less than 1 kg; uncanned pigmeat must derive from pigs which originated, or are from premises, or packaged in the South Island of NZ,but may be transhipped through a North Island port for immediate export, and may not be opened or repacked for consolidation.	Animal health (Aujesky's disease)	
Byproducts: edible (casings, tallow, blood, beef pancreas	Edible tallow: a statement signed by manufacturer specifying temperature and time of rendering or production process.	Public health Animal health	
	Dried blood: endorsement that product is prepared from animals resident in NZ and suitable for human consumption; supervised by a MAF veterinarian; and heated to a temperature of 90 degrees cent. for a minimum of 10 min.	Public health	
	Certification: as for edible product.		
Byproducts: inedible (tallow, casings, petfood, meatmeal)	Inedible meats: must be declared as derived from animals slaughtered at a licensed NZ slaughterhouse, and sterilised in a rendering system equivalent to 115 degrees cent. temperature for more than 1 hour.	Animal health	
Byproducts: other (pancreas glands for pharmaceutical ourposes)	Certification endorsed with the following "glands not exposed to infection prior to export, and examined and passed for pharmaceutical purposes".	Public health	

Table 2 : Summary of Country-specific Technical and Certification Requirements for Meat Imports in Pacific Rim Countries

Country	Certification Accepted from New Zealand	Trans- shipment Restriction	Pigm Stati		Sterilisation Inedible	Whole or Part	Labelling Specified	
Australia	Y	Y	A	Y	Y			
Canada	S	Y	N			Y	Y	
Fiji	Y		N					
Fr Polynesia	S		Tric	h				
Hong Kong	Y		St			Y		
Indonesia	S							
Japan	Y		Tric	:h	Y		Y	
Malaysia	Y		St	Y	Y		Y	
New Caledonia	S		St		Y		Y	
New Zealand	-	Y		Y		Y		
Papua New Guinea	Y		St	Y				
Philippines	Y		St					
South Korea	Y			Y	Y		Y	
Taiwan	Y				Y	Y		
Thailand	Y							
Tonga	=		Α					
United States	S				Y	Y	Y	
W Samoa	Y		Α					
Certification:			Pigmeat (Restrictions):		No F	No Requirement Specified		
Y The New Zealand Official Meat Inspection Certificate, AgM 111 is accepted.			A N	N Imports refused		No entry shown in table.		
	c Official Veterinar Certificates are requi		Trich St	Trichinosis tested Sterilised product				

to truth-in-labelling requirements appear to be carried to extraordinary lengths. In some cases, large trade quantities are involved, and in others the trade is miniscule or does not exist.

The next issue is that these meat measures are historically the result of bilateral negotiation between countries. To that extent they are fully transparent to the parties involved. The wider question, however, is whether such measures are transparent in relation to the problem they seek to contain. Is the underlying problem a true health risk or a form of nontariff protection? Detailed rules for assessment of health risk along the lines being proposed in the GATT negotiations on SPS

would represent a significant advance on the current situation.

From the data in Tables 1 and 2 and the data from the other countries studied, the following justifications for sanitary regulations in the meat trade area can be identified: threats to animal health; threats to public health; need for truth-in-labelling; meeting consumer aesthetics; maintainance of product quality; maintaining security from tampering; meeting customary practice; protection of domestic production; need for market discipline; and prevention of entry into the edible food chain. Within such a broad framework, case-by-case studies would be required to identify the original motives for each domestic policy measure and whether it was "justified" in GATT terms.

4. The Draft GATT Decision on Sanitary and Phytosanitary Measures

The objectives of the SPS negotiations are to establish internationally a common set of rules and disciplines to guide the adoption, development and enforcement of SPS measures in world trade (GATT 1991). Countries will be directed to base their sanitary and phytosanitary measures on international standards. guidelines or recommendations. The draft encourages the development and adoption of uniform international food safety standards on as wide a basis as possible to reduce barriers to international trade. There would be increased reliance on the international standards associations. These goals will be achieved by greater transparency, openness and clarity, by promotion of greater international harmonisation of standards, rules and procedures, and by promotion of an improved consultation and dispute settlement framework (Rajasekar 1991).

Harmonisation

Harmonisation of SPS measures will encourage countries to adopt wherever possible standards and guidelines that have been adopted by international standardising bodies such as Codex Alimentarius, the Organisation International Epizootics, and the International Plant Protection Convention. Countries would have the right to adopt measures more stringent than those provided for by international standards but these cannot be established without reasonable scientific justification. The onus of proof would clearly fall on the country seeking the higher level of protection. Harmonisation will thus embrace more active support and participation of the international scientific organisations.

The negotiation seeks to establish ground rules for inspection and approval procedures. It is a major issue among the participating countries to arrive at rules that are acceptable to everybody. In principle, there are two generalisations which convey the intent of this part of the agreement: a) every country has the right to apply national processes; and b) countries should agree that where international standards exist consideration should be given to allowing interim access on the basis of the relevant international standard until such time as the importing country makes a national determination.

Transparency

Greater transparency means better communication and understanding of the relevant rule or procedure. This is not only a matter for Governments, but also for the relevant scientific organisations, the international negotiating bodies like GATT, and the organisations that represent producers and processors. Currently a great deal of this process is entirely hidden from public view.

Clearer rules would assist in the resolution of disputes. The agreement should clarify the so-called "onus of proof" between exporting and importing countries. Countries seeking a higher level of protection than one set by international standards would need to provide the justification for their standards. Countries unable to accept a product which met international standards would also need to provide a justification for their actions.

Risk Assessment

The negotiation seeks to promote greater consistency in the assessment of risk linked with importation of product. Greater uniformity in the assessment of risk posed by international transfer of plants, animals and products would bring out the underlying reasons for existing and proposed domestic measures. GATT recognises three principal steps in sanitary and phytosanitary risk management that may give rise to restrictions on trade, inadvertant or otherwise (GATT 1992, p.24). First, risk as-

sessment involves an evaluation of the likelihood of a pest or disease becoming established or its potential consequences, or, in the case of additives, contaminants and toxins, the potential adverse effects on human or animal health. Second, it involves determining the acceptable level of risk. That is, meeting societal preferences through "negligible risk" levels for food quality, or through acceptable "tolerance" levels for contaminants. Third, it involves the selection and application of health and sanitary risk management measures by Governments. It is the latter which have the potential to impose unnecessary burdens on imported goods.

It is proposed that a clause be included in the agreement which would allow an importing country to take into account only the bio-economic impact of the introduction of a pest or disease. Such a clause would identify that it was the risk of disease that was the problem and not an economic threat to a particular industry.

Equivalence

In the negotiations on equivalence the objective is to obtain explicit recognition and commitment to alternative ways of achieving the same SPS objective. One country may require a particular method of preservation when there is another available. It is hoped that countries will allow each other the right to adopt measures different from their own, provided that the exporting country can demonstrate that its measures achieve the importing country's level of SPS security.

Ground Rules

The SPS discussions are seeking to establish ground rules that are acceptable to participating countries. It is suggested that exporting countries should not have to undergo more rigorous control, testing and approval procedures than those applying to domestic producers. It is also suggested that there should be

time limits on information processes and consideration of applications for new protocols. Some countries would like to have the right to apply national approval processes in all circumstances as opposed to international processes. Access to a market should be based on the relevant international standard until such time as the importing country makes a national determination.

In the Tokyo Round it was agreed that it would be possible for an exporting country to challenge another country's ban on the sale of a particular product on the grounds that the ban is not based on scientific criteria (GATT 1992, p.23). These various provisions were an attempt to find a reasonable balance between the desire to avoid distortions to competition and the desire to allow each country sovereignty over measures affecting the health and safety of its residents, their herds and crops.

Area Freedom

An agreement on the basis of the area freedom principle would allow disease-free areas to be identified and trade permitted on appropriate guarantees. In the case of New Zealand and Australia, area freedom has been utilised to allow access for South Island pigmeat into Australia as the South Island is free from Aujesky's disease.

Dispute Settlement

The objective here is to provide for an effective multilateral dispute settlement procedure to deal with technical disputes. There is a need for more expeditious ways of handling disputes. There is a move to involve the relevant international scientific organisations in the consultation and dispute settlement process as well.

Other Issues

The existing GATT rules have been criticised by some countries for favouring the domestic

country's interests (Rajasekar 1991). Article XX(b) provides blanket powers to countries to take such measures as they consider necessary to protect plant, animal and human life and health. It has been virtually impossible to challenge a country's measures as unnecessary and it would be very difficult to argue such a case in terms of this provision.

Criticism from another direction has come from Non-Government Organisations. Current attempts to harmonise "downwards" the SPS measures results in adoption of the lowest common denominator and hence reduces the overall level of protection provided to consumers. These Organisations see the hand of transnational corporations in such a movement to lower standards. In addition, the *Codex* standards are already lower than some country standards and hence harmonisation to this standard is also a weakening of protection to consumers (see, for example, Shrybman 1990, pp.31-33).

5. An Assessment of Pacific Rim Meat Sanitary Measures in the Light of the GATT SPS Negotiations

The meat trade represents an area where there has been time for international and bilateral negotiation to resolve many of the nontariff barriers that have been created between importing and exporting countries. The international scientific bodies have been active in the meat and meat products area and there is a widely spread consultative network of official veterinarians who coordinate the protocols and resolve bilateral disputes and disagreements. In turn, these officials are responsible for the conduct of both the importing and the exporting trade in their respective countries and hence supply the internal transparency that is obviously needed.

Issues of equivalence and area freedom have been negotiated on a bilateral basis. The example of Aujesky's Disease has been referred to above. Equivalence was at the heart of the New Zealand/European Community negotiations in the period 1980-90 when meat processing premises and practices in New Zealand were being brought up to Community requirements (Petrey 1989).

The area of risk assessment is not addressed in the Petrey and Johnson review (1992). Presumably, individual countries make their own risk assessments, but these do not show up in agreed bilateral protocols except to the extent that any existing domestic concerns have been overcome. The draft negotiation provides for meetings to develop suitable guidelines for the assessment of risk.

The review shows that lack of clarity in rules and measures can be to the detriment of trade. This assessment of the meat sanitary measures suggests that they are subject to wide interpretation. There is thus scope for abuse by national agencies especially at the importing end. Clarity in labelling, for example, reduces the threat of rejection at the importing station. This conclusion supports the GATT initiatives for making the measures and the processes more transparent, and to promote greater harmonisation on the basis of standards and systems developed by international scientific organisations, to lessen the chance of potential abuse in the future.

A review such as that reported does not reflect the cutting edge of the necessary bilateral negotiation that an agreed protocol demands. It would be useful, for example, to assess the time it takes to achieve a new meat or meat product protocol between Australia and New Zealand. The protocol for the import of pigmeat free of Aujesky's Disease into Australia would have to satisfy veterinary officials on both sides of the Tasman before it could be introduced. One has to offer guarantees as to the quality and origin of product while the

other has to accept their word that they and their procedures can deliver. In the wider context of world trade in meat and meat products, the review shows that some countries have poorly developed systems of quality control, and inspection services, which in turn inhibit potential exports and imports. The review did not bring to light marked domestic protection measures *per se*, but it did demonstrate that health and safety regulations can be a significant barrier to greater trade in such products.

6. Conclusions

At the time of writing, the Uruguay negotiations have not been completed. The draft GATT Decision on Sanitary and Phytosanitary Measures has been negotiated and awaits agreement on other parts of the Round. Elements of the SPS text are already being implemented. However, as long as the main negotiation is incomplete, there is a risk that an SPS measure could be introduced without adequate safeguards.

The negotiators of the SPS text stress that the objectives of greater harmonisation and transparency are going to take time to achieve. There are such different stages of development throughout the world, and different country standards and approaches, that considerable time will be needed to carry the negotiated text into effect. The negotiation does make provision for a two year delay in implementing the main provisions for the least developed contracting parties, and would allow other developing contracting parties the same delay period except for the reporting requirements on measures not based on the relevant international standards.

The political economy models of protectionism advanced by MacLaren (1991) and North (1987) provide useful explanations of the forces behind the growth of trade in agricultural products and the potential impediments

to trade that exist. There are a large number of participants in the market channel that are not necessarily owners of product, but who still have an interest in matters such as SPS measures. The role of government goes well beyond policy formulation alone and extends to delivery of services, international and bilateral negotiation, and trade reform. There are very distinct roles for science, scientific organisations and experts. There is rather less political resolution of international problems and rather greater resolution at an expert level. All assessments of plant, human and animal health protocols are finely balanced on the available scientific evidence and risk assessment is a crucial part of the evaluation process. The whole process is held together by a common set of rules.

Detail of sanitary protocols for the meat trade in the Pacific Rim countries show up an area where the measures have reached a fairly advanced stage of development and agreement. There is no doubt that the requirements specified do add costs to the exporting country, as expected by the North model, and importing countries have greater costs of inspection as well. But the positive conclusion is that there is a growing trade in meat and meat products, especially beef, in the Pacific Rim region which presumably satisfies all the sanitary protocols and overcomes the extra cost laid down by individual countries (New Zealand Meat Producers Board 1991, pp.50-51). Thus, this particular form of nontariff measure appears to be largely justifiable. Hillman's 1978 assessment was that there was a wide range of national statutes and regulations in the SPS area relating to human health, animals or plant health that were justified. This, however, did not prevent confusing and misleading assessments being made about their economic effects (Hillman 1978, p.26). This paper shows that there is ample opportunity for potential barriers to trade to be created by SPS domestic policy measures. International coordination, negotiation and rule making can help resolve such problems before they occur.

References

- GATT (1986), The Text of the General Agreement on Tariffs and Trade, Geneva.
- GATT (1991), Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Section L, Part C, MTN.TNC/W/FA 20 December, Geneva.
- GATT (1992), International Trade 1990-91, GATT Release de Presse dated 3 February 1992, subsequently published as Ch III, International Trade 90-91, Vol I, 1992, Geneva.
- HILLMAN, J. (1978), Nontariff Agricultural Trade Barriers, University of Nebraska Press, Lincoln and London.
- HILLMAN, J. (1991), Technical Barriers to Agricultural Trade, Westview Press, Boulder.
- MACLAREN, D. (1991), 'Agriculture in the Uruguay Round: A perspective from the political economy of protectionism', Review of Marketing and Agricultural Economics 59, 87-92.
- MILLER, G. (1986), The Political Economy of International Agricultural Policy Reform, Australian Government Publishing Service, Canberra.

- NEW ZEALAND MEAT PRODUCERS BOARD (1991), Annual Report, Wellington.
- NORTH, D.C. (1987), 'Institutions, transaction costs and economic growth', *Economic Inquiry* XXV, 419-428.
- PETREY, L.A. and R.W.M. JOHNSON, (1992), Nontariff Trade Measures for Meat in the Pacific Region, Ministry of Agriculture Position Paper, Wellington.
- PETREY, L.A. (1989), The European Economic Community's Third Country Veterinary Directive: A Study of New Zealand's Compliance with the Directive, Unpublished Master of Public Policy Thesis, Victoria University, Wellington.
- RAJASEKAR, S. (1991), GATT: Multilateral Trade Negotiations: Review of Progress in Negotiation on Sanitary and Phytosanitary Measures, AGCARN Seminar, Wellington.
- RUNGE, C.F. (1990), 'Trade protectionism and environmental regulation: the new nontariff barriers', Northwestern Journal of International Law and Business II (1), 47-61.
- SHRYBMAN, S. (1990), 'International trade and the environment: an environmental assessment of the General Agreement on Tariffs and Trade', *The Ecologist* XX (1), 30-34.