



DIRECTORATE FOR FOOD, AGRICULTURE AND FISHERIES
TRADE DIRECTORATE

OECD Workshop on Emerging Trade Issues in Agriculture

THE OECD AND AGRICULTURAL TRADE ANALYSIS

Recent History, Possible Future Directions

This document has been prepared by the OECD Secretariat as part of the background documentation being made available to those attending the OECD Workshop on Emerging Trade Issues in Agriculture to be held on the 26-27 October 1998 under the auspices of the Directorate for Food, Agriculture and Fisheries and the Trade Directorate. The Workshop will be held in the Conference Room of the International Energy Agency at 9, rue de la Fédération, 75739 Paris Cedex 15.

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NOTE BY THE SECRETARIAT

This document has been prepared by the OECD Secretariat as part of the background documentation being made available to those attending the OECD Workshop on Emerging Issues in Agriculture, to be held in Paris on the 26-27 October 1998. It describes the agricultural trade related studies carried out at the OECD in recent years and also indicates on-going and planned work. It is intended to assist speakers and participants in the workshop, one of the main objectives of which is to identify the important analytical issues for the future and how the OECD might contribute to resolving them. Extensive bibliography is given, including references to some unpublished work which is generally only available to representatives of OECD Member governments.

The documentation being prepared for the workshop will also be available on the **Internet**, from Monday the 19th October 1998, at the following address:

<http://www.oecd.org/agr/trade/>

THE OECD AND AGRICULTURAL TRADE ANALYSIS

Recent History, Possible Future Directions

Introduction

1. The OECD with its founding mandate to promote policies to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries and to contribute to the expansion of world trade on a multi-lateral non-discriminatory basis, has a long history of analysis and research in matters directly or indirectly related to agricultural trade policy. In recent years, the focus has been on linkages between domestic and trade policy in agriculture. Attention has also been paid to issues such as environment, competition policy and regulatory reform, all areas in which for different reasons agriculture presents specific problems. The Organisation seeks to identify emerging issues and to develop analytical frameworks that lead to policy prescriptions and in so doing seeks to fulfil its broad mandate in support of the multilateral trading system. Specifically and more recently the Council of the OECD meeting at Ministerial level (para. 23 of SG/COM/NEWS(98)51) reaffirmed the OECD's important role in support of the multilateral system while Agriculture Ministers meeting in March 1998 requested the OECD, *inter alia*, to examine on-going and new agricultural trade and trans-boundary policy issues and their impacts and to provide analytical support, as appropriate, to the process of agricultural trade liberalisation (para. 17 of SG/COM/NEWS(98)22).

2. The following sections describe the main work relevant to agricultural trade policy undertaken by the OECD in recent years and also describe on-going and planned work. The most important references, both published and unpublished, are mentioned throughout the text.

Domestic support and border measures

3. In the run-up to and during the Uruguay Round the OECD was actively engaged in analytical work in support of the round. A series of country reports was prepared analysing and quantifying the links between domestic agricultural policies and trade. Central to this analysis were the Producer and Consumer Subsidy Equivalents which were later adapted to become the Aggregate Measurement of Support Indicator on which the domestic support discipline of the URAA is based. In parallel the OECD developed the MTM model, a multi-country, multi-commodity partial equilibrium model which was used to demonstrate the likely direction and magnitude of the effects on world prices and trade of a gradual and progressive reduction in support and protection, undertaken multilaterally. In 1987 Ministers agreed a set of principles for the reform of agricultural policies and launched a process whereby progress towards the achievement of those principles would be monitored. These principles reiterated the link between domestic agricultural policies and trade and outlined a reform agenda, the long term objective of which was to allow a greater role for market signals in determining agricultural production and trade. This

monitoring exercise takes the form of an annual report of which the latest in the series is entitled "Agricultural Policies in OECD Countries: Monitoring and Evaluation 1998" and which, *inter alia*, presents up to date Producer and Consumer Subsidy Equivalents and derived indicators for the OECD area.

OECD (1998), Agricultural Policies in OECD Countries: Monitoring and Evaluation 1998, Paris.

OECD (various years), Agricultural Policies, Markets and Trade, Monitoring and Outlook, each year 1988 to 1997, Paris.

OECD (1990), Economic Studies, Special Issue-Modelling the Effects of Agricultural Policies, No. 13, Winter 1989-1990, Paris.

OECD (1987), "Communiqué" Press/A(87)27, Paris 13 May, Paris.

OECD (1987), National Policies and Agricultural Trade, Paris.

4. Following the conclusion of the Uruguay Round, OECD organised a workshop assessing the overall results of the round. It also undertook a preliminary evaluation of the likely effects of the agriculture agreement. This evaluation was published in 1995. In addition to a qualitative assessment this study, with a view to quantifying the amount of "water" in the tariffs, attempted to compare the level of protection implied by the bound tariffs with the tariff equivalents of the market price support element of the PSE calculations, for the base period and projected for the 1999-2000 period. A comparison was also made of the evolution of AMS and PSE from the URAA base period up to 1993. This study looked exclusively at primary products. A second study published in 1997 looked at trends in processed and primary product agricultural trade, examined whether the degree of liberalisation that would result from the URAA for processed products was likely to be greater than for primary products and also looked at tariff escalation.

OECD (1997), The Uruguay Round and Processed Agricultural Products, Paris.

OECD (1995), The Uruguay Round, A Preliminary Evaluation of the Impacts of the Agreement on Agriculture on the OECD Countries, Paris.

OECD (1994), The New World Trading System, Paris.

5. The annual OECD Agricultural Outlook assesses the impact of changes in agricultural and trade policies on the medium term outlook for major commodities. The analysis relies on the AGLINK model -- a dynamic multi-market commodity model which incorporates specific policy instruments and captures the effect of changes in them on trade volumes and international prices. For example, the 1998 publication included some indication of the effects on world trade and prices if the modalities of the URAA were to continue to be applied beyond the end of the existing implementation period.

6. The OECD Secretariat has also experimented with different indicators of the effects of policy changes on international trade. Amongst these have been the Trade Effects Index, a quantity based index

using the PSE/CSEs and the original MTM model and the Trade Restrictiveness Index developed by Anderson and Neary.

OECD (1998), The Agricultural Outlook 1998-2003, Paris.

**OECD (1996), Measuring the Trade Implications of Policy Changes in Agriculture
-- COM/AGR/APM/TD/WP(96)3, unpublished, Paris.**

7. The Secretariat is also examining the progress the Uruguay Round made in the area of tariffs. The main objective of the project is to provide trade policy practitioners an accurate, comprehensive and up-to-date information on remaining tariffs in OECD and non-OECD countries following the full implementation of the UR agreements. It also seeks to identify specific sectors where tariff liberalisation can be achieved in an efficient manner, building on the experience of zero-for-zero exchanges of commitments in the Uruguay Round and also in the Information Technology Agreement. To date, the tariff regimes of all OECD countries and eight non-Member countries have been analysed. In the next stage, more non-OECD countries will be added in anticipation of a synthesis report scheduled for completion by mid-1999.

OECD (1998), Review of Tariffs and Non-tariff Barriers -- Tariff Regimes of Selected Non-OECD Countries -- TD/TC/WP(98)50, Unpublished, Paris.

OECD (1998), Review of Tariffs and Non-tariff Barriers -- Tariff Regimes of the Non-Quad Countries -- TD/TC/WP(98)29, Unpublished, Paris.

OECD (1997), Review of Tariffs and Non-tariff Barriers -- Tariff Regimes of the Quad Countries -- TD/TC(97)11/REV1, Unpublished, Paris.

Possible future directions

8. The Marrakech Accord, creating the World Trade Organisation and including the Agreement on Agriculture (hereafter URAA) was signed in April 1994. Implementation began during 1995. Sufficient time has, therefore, elapsed to allow an informed discussion of its strengths and weaknesses and to begin to assess its impacts. Moreover, an assessment of the impacts of the agreement will be an important input into reflections about how best to continue the process in the next round of multilateral agricultural trade negotiations.

9. How effective have the three disciplines contained in the URAA been in bringing about a reduction in the level of production-related support and protection? Which elements of the disciplines have proved effective and which ineffective. What impact is the domestic support discipline having on policy formation? In the case of all three disciplines how can/should the modalities be amended to eliminate problems observed in the implementation process to date? What should be the terms and time frame of the modalities to be adopted in the up-coming round in order to achieve the "long term objective of substantial, progressive reductions in support and protection resulting in fundamental reform". What impact would these new/modified modalities have on the levels of protection and on agricultural trade. What analytical tools, data and information, not currently readily available, are needed to support research in these areas.

10. With a view to contributing to understanding of these issues, core activities such as the annual monitoring and medium term outlook exercises will continue. A revised methodology and classification system will be applied in the calculation of the Producer and Consumer Subsidy Equivalent and related indicators to better reflect recent policy developments, in particular the move away from open-ended market price supports towards more complex policy instruments whose effects on production and trade are more difficult to assess. A Policy Evaluation Matrix is being developed. This work, which is being carried out in co-operation with a number of Member countries, seeks to develop a multi-indicator empirical assessment of the impact of changes in domestic and trade policy instruments on for example, support costs, farm household income, production and trade. There is particular emphasis on the impact of different forms of direct payments and it is expected that the PEM will contribute significantly to clarifying questions concerning the production and trade effects of “blue” and “green” box measures. The results of this work have not been published to date but the pilot phase is nearing completion.

11. An evaluation of the impacts of the URAA on agricultural trade and protection, updating the study referred to above and incorporating the most recent information on implementation and analysis of impacts is planned as is an analysis of effects of different ways of allocating tariff rate quotas, impact on trade and welfare of different assumptions about market structure. A review of domestic and trade measures affecting exports and export competitiveness including export restrictions and taxes, export credits, price pooling and price discrimination mechanisms will also be undertaken. The AGLINK model will be further developed to allow an assessment of the world market effects of alternative scenarios for the continuation of trade liberalisation after expiry of the implementation period of the URAA and to undertake special studies of the impact of policy reform in the dairy, sugar and rice sectors. In support of these URAA related projects, data needs and availabilities are being reviewed and some preliminary data base development is underway in collaboration with other institutions and agencies.

Domestic objectives and trade liberalisation: synergies and trade-offs

12. Domestic non-food concerns related to agriculture have moved up on the scale of policy priorities in OECD countries in recent years. While the types of concerns and the attention they are given in the policy debate vary from country to country, these concerns typically include the protection of the environment, the maintenance of the rural landscape and provision of other rural amenities, and the socio-economic viability of rural communities. In some countries, food security also ranks high on the domestic policy agenda.

13. Agricultural activity can, to various degrees, contribute to the achievement of these domestic goals -- a notion that is reflected in the term “multifunctionality”. The issue of multifunctionality itself is not a new one, but it has attracted more attention in recent years. The growing interest in multifunctionality is also related to concerns that trade liberalisation, through its likely impact on agricultural production, farm structures and farming practices, could dissipate the non-food benefits of agriculture.

14. OECD Agriculture Ministers at their meeting in March 1998 referred to the multiple roles of agriculture and stressed that “agri-food policies should seek to strengthen the intrinsic complementarities between the shared goals, thereby allowing agriculture to manifest its multifunctional character in a transparent, targeted and efficient manner”, and that the challenge lies in using “a range of well-targeted policy measures and approaches which can ensure that the growing concerns ... are met in ways that maximise benefits, are most cost-efficient, and avoid distortion of production and trade”. Ministers also

reaffirmed that agriculture should be responsive to market signals and further integrated into the multilateral trading system.

**OECD (1998), “Agriculture in a Changing World: Which Policies for Tomorrow?”,
Communiqué of the Meeting of the Committee for Agriculture at Ministerial Level
-- SG/COM/NEWS(98)22, 6 March, Paris.**

15. The growing importance and diversity of domestic objectives in agriculture, and their simultaneous achievement with the gradual opening of markets to international trade, are discussed in more detail in a background document prepared for the meeting of Agriculture Ministers. This document describes the major emerging domestic and international pressures for agricultural policy reform and suggests, for each area, a policy approach to be followed by governments.

OECD (1998), Agricultural Policy: The Need for Further Reform, Paris.

16. While the term multifunctionality has been introduced into OECD work fairly recently, the search for appropriate policy approaches to achieve domestic objectives in the context of agricultural policy reform and trade liberalisation has a long history. A study that was published in 1994 examines the role of direct payments in policy reform, in particular in the areas of structural adjustment, farm income fluctuations, minimum income guarantees and environmental externalities.

**OECD (1994), Agricultural Policy Reform: New Approaches -- The Role of Direct
Income Payments, Paris.**

17. In 1998 a Secretariat report was presented to Ministers exploring the concerns expressed recently in civil society about the benefits of open markets in the context of globalisation. In examining these various concerns, the study highlights the challenge for policy-makers to design policies that help citizens and communities take advantage of technology-driven opportunities for economic growth and higher standards of living. International trade and investment are seen to play a part in this transformation, but only a part. At the same time, the study concluded that there are undeniable, clear net benefits in keeping markets open to trade and investment.

**OECD (1998), Open Markets Matter. The Benefits of Trade and Investment
Liberalisation, Paris.**

Possible future directions

18. Explicit OECD work on the relationship between trade policy and the domestic policy objectives in agriculture is now beginning. Among the core questions to be examined are: How can domestic objectives, including those related to the environment, rural development and the social situation of farmers, be achieved in ways that do not or only minimally distort production and trade? What are the

potential complementarities and trade-offs between these domestic policy objectives and trade liberalisation? Which approaches can be taken in a national or multilateral policy context to maximise complementarities and minimise conflicts?

19. A specific set of questions regarding multifunctionality has been raised in the 1998 Monitoring and Evaluation Report. These refer to the distinction between the multifunctional characteristics of agriculture and those of other economic activities; the quantification of the multiple food and non-food objectives and the evaluation of policies that aim to achieve them; the joint production relationship between food and non-food outputs; and the usefulness of market-led approaches to achieve objectives encompassed in multifunctionality.

OECD (1998), Agricultural Policies in OECD Countries: Monitoring and Evaluation 1998, Paris.

20. The main challenge will be to establish an appropriate analytical framework to address these issues. The Agriculture Directorate has begun to develop such a framework and is currently preparing a paper on multifunctionality which will: describe the main policy issues; explore the economic concepts involved; identify the policy information and data necessary for analysis; and outline possible directions for the continuation of the work. This paper can be considered as a first step in examining the synergies and trade-offs between domestic and international policy objectives. While in the initial stage the analysis is developed along general economic terms, it is already evident that Member countries' policy experiences with multifunctionality are likely to be an important input into future work.

Food safety and quality, issues related to the SPS and TBT Agreements of the Uruguay Round

Recent history

21. Highly publicised outbreaks of food-borne diseases in recent years have shaken consumer confidence and caused serious economic hardship in the agricultural and processing sectors concerned. Consumer concerns, particularly in high income countries, increasingly go beyond safety aspects to cover food quality, how it is produced, animal welfare, resource sustainability and protection of the environment. There are cultural differences in attitudes to food safety and quality. With particular relevance for international trade it is clear that consumer willingness to accept "scientific evidence" about the innocuity of certain foods or processes varies from country to country. The Uruguay Round incorporated an Agreement on Sanitary and Phytosanitary Measures and a strengthened Technical Barriers to Trade Agreement, respect of which is mandatory for all WTO members, but, to date, too few disputes have been adjudicated for a reliable jurisprudence to have developed and many uncertainties persist.

22. The relative newness of many of these issues is such that the OECD has not developed a comprehensive work programme although many activities in recent years touch on relevant subjects and propose relevant analytical and policy frameworks. The OECD Report on Regulatory Reform contained a number of policy recommendations generally applicable wherever regulation has implications for international market openness. These included, *inter alia*, that governments should strengthen measurement of regulatory costs for international trade, should strengthen international co-operation to promote pro-competitive regulatory reform across countries, should review domestic regulations systematically to minimise unnecessary costs on trade and investment and should expand mutual

recognition agreements and other forms of regulatory co-operation. An agro-food sector study reiterated these recommendations and cautioned against the use of regulatory barriers under the pretext of food safety as other types of barriers to agricultural trade come down under the influence of the URAA. It also suggested that alignment and simplification of food safety and quality regulations within countries would also be beneficial for trade.

23. These perspectives have been reviewed in the OECD Workshop in December 1997 with participation from dynamic non-OECD economies in Asia and Latin America. The workshop included a session devoted to trade and regulatory reform in the agro-food sector. The discussion revealed, with a number of concrete experiences, the need to address the complex issue: how to reconcile legitimate safety concerns of countries and avoidance of trade restrictiveness.

OECD (1998), Regulatory Reform in the Global Economy -- Asian and Latin American Perspectives, Paris.

OECD (1997), "Product Standards, Conformity Assessment and Regulatory Reform" in The OECD Report on Regulatory Reform, Vol. I, Sectoral Studies.

OECD (1997), "International Market Openness and Regulatory Reform" in The OECD Report on Regulatory Reform, Vol. II, Thematic Studies, Paris.

OECD (1997), "Regulatory Reform in the Agro-Food Sector" in The OECD Report on Regulatory Reform, Vol. I, Sectoral Studies, Paris.

24. Still in the context of regulatory reform, two studies on specific aspects of food safety and quality were published in conjunction with the regulatory reform study detailed above. These studies looked at costs and benefits of food safety regulations with reference to fresh meat hygiene standards in the United Kingdom and at the use of food labelling regulations. Both studies touch on some international trade aspects.

OECD (1997), "Uses of Food Labelling Regulations" OECD/GD(97)150. Prepared by Dr. Julie A. Caswell, Department of Resource Economics, University of Massachusetts, Amherst, USA.

OECD (1997), "Costs and Benefits of Food Safety Regulations: Fresh Meat Hygiene Standards in the United Kingdom" -- OECD/GD(97)149. Prepared by Dr. Spenser Henson of the Centre for Food Economics Research, Department of Agricultural and Food Economics, University of Reading, United Kingdom.

25. More recently, OECD commissioned a review paper on the trade considerations arising from food safety and quality issues. Following comments by the relevant working parties this paper is currently being prepared for publication. It defines some basic concepts, describes the international legal and regulatory environment, reviews some of the recent disputes on food safety and quality that have international repercussions, looks at possible applications of economic analysis to the issues and identifies areas in which further analysis could be useful.

26. More general work is also under way to deepen understanding of the ways in which product standards can impede trade. One project is in train to gather information and analyse the additional costs imposed on foreign producers through standards and conformity assessment requirements. Another

project is focusing on the ways in which international standards are developed and implemented and how their use might be strengthened as a means for overcoming certain trade frictions.

27. In addition to these contributions, OECD has a number of technical activities that are relevant to international trade aspects of food safety and quality through the OECD Agricultural Schemes for International Trade. Their objectives are seed certification and fruit and vegetable standardisation. Their main role is in establishing formal regulatory equivalencies between the world regions.

OECD (1998), Food Safety and Quality: Trade Considerations. Paper presented to the June/July session of the Joint Agriculture Trade Working Party -- COM/AGR/APM/TD/WP(98)61. Prepared by Jean-Christophe Bureau, Estelle Gozlan and Stéphane Marette of INRA, France.

OECD Schemes for the Varietal Certification of Seed Moving in International Trade/Systèmes de certification variétale des semences destinées au commerce international.

OECD Scheme for the Control of Forest Reproductive Material Moving in International Trade/Système de l'OCDE pour le contrôle des matériels forestiers de reproduction destinés au commerce international.

OECD (1998), Measuring the Costs of Regulations on Trade -- TD/TC/WP(98)37, Unpublished, Paris.

OECD (1998), Regulatory Reform and International Standardisation -- TD/TC/WP(98)36, Unpublished, Paris.

OECD (1996), Biotechnology and Trade -- TD/TC/WP(96)37, Unpublished, Paris.

Possible future directions

28. Recent papers identify a number of areas that might benefit from further analysis. One question concerns the appropriateness of the institutional and legal frameworks for establishing international standards given the new role that has been assigned to them in the context of the SPS and TBT Agreements. The work on international standards could be deepened by studying their actual use in sectors such as agro-food. Another area of possible investigation is the role of economic analysis in assisting policy makers to formulate welfare maximising regulatory measures. In particular, is it possible or desirable to incorporate an assessment of economic costs and benefits into domestic procedures for regulatory impact analysis (RIA) or into the international protocols and agreements on food safety and quality matters and how would such measures be used alongside scientific assessments of physical risk? Is enough known about the costs imposed by the different regulatory systems on taxpayers and on industry? What should be the role of public versus private standards and what are the implications for international trade?

29. The draft programme of work of the Agricultural Directorate proposes food safety and trade as a general subject area for a study that would attempt to identify policy criteria that could best reconcile consumer concerns, broadly defined, with the continuing process of agricultural trade liberalisation. Analysis of many of the issues involved requires a multi-disciplinary approach that combines economics, law and science and the OECD has traditionally been well placed to carry out such work. But more reflection is required to progress from general issue-raising to the identification of a specific project and methodology to address those aspects of food safety and trade that are likely to benefit from the institutional environment of the OECD.

Agricultural trade and environment

Recent history

30. In most OECD countries, agriculture is a heavily assisted industry and it is generally acknowledged that agricultural support policies have both positive and negative effects on the environment. During the last decade, many countries have engaged in reforms to lower the levels of agricultural support and border protection, and to move towards policies that are less distorting for production and trade. In this changing policy context, increasing attention is being paid to the linkages between agricultural trade and the environment.

31. The discussion in the OECD in this area has mainly revolved around two questions: (i) how do environmental measures in general and agri-environmental measures in particular affect agricultural production and trade; and (ii) what are the impacts of freer trade on the environment? Regarding the first of these questions, the policy debate is fuelled by concerns that environmental policy might change the competitive position of farmers in international trade. Differences in environmental regulations that raise the cost of agricultural production are sometimes perceived as putting farmers in some countries at a disadvantage relative to farmers in other countries. But the opposite can also occur if environmental objectives are pursued through financial incentives, such as agri-environmental payments, and if these payments stimulate production.

32. As to the second question, a shift to a more open trading system will increase trade opportunities, which in turn can lead to changes in the size, location and composition of agricultural production, with both positive and negative consequences for the environment. There are also concerns that growth in trade may result in more international traffic and more pollution associated with the combustion of fossil fuels, as well as a greater risk that pests and diseases spread across country borders. On the other hand, higher economic growth as a result of trade liberalisation may have indirect benefits for the environment, as wealthier populations are generally more aware of environmental issues and more inclined to search for market and policy solutions to environmental problems.

33. In 1991, the OECD Joint Session of Trade and Environment Experts commissioned a series of studies on the environmental effects of trade that focused on particular sectors or themes, agriculture being one of them. These studies were published in 1994. The chapter on agriculture examines incidences of market failure in agriculture with respect to the environment; whether these market failures are aggravated by border protection and domestic support; and what trade liberalisation would imply for the environment. The paper also discusses principles that can guide the design of appropriate agricultural and environmental policies.

OECD (1994), C.Ford Runge, "The Environmental Effects of Trade in the Agricultural Sector" in *The Environmental Effects of Trade*, Paris.

34. In 1993, the Joint Working Party of the Committee for Agriculture and Environment Policy Committee (JWP) was established. Since then, much of the work on agricultural trade and the environment has been carried out under the guidance of this body. Still in 1993, the JWP on Agriculture and the Environment asked the Secretariat to produce a scoping study of the major policy issues in the area of agricultural trade and the environment. This study summarised the work on trade and environment that had been carried out by the OECD; examined the key mechanisms through which agricultural trade

liberalisation would impact on the environment; identified the element of domestic support policies that are most likely to affect agricultural trade; and discussed the potential for addressing environmental problems through multilateral efforts, including international environmental agreements.

OECD (1994), Policy Issues in the Linkages Between Agriculture, Trade and the Environment -- COM/AGR/CA/ENV/EPOC(94)47, Unpublished, Paris.

35. In 1995, a consultancy paper was commissioned by the JWP to look at the policy challenges that lie ahead in the area of agricultural trade and the environment. This study, which outlines emerging conflicts and possible solutions concerning the dual goal of trade liberalisation and environmental management, was published as a general distribution document in 1997. Among the main questions addressed in this study are: whether economic growth from liberalised trade would stimulate effective environmental policies; whether future agri-environmental programmes would inhibit trade; and whether the benefits for the environment and the risks to trade associated with environmental trade measures could be balanced.

OECD (1997), David Ervin, Agriculture, Trade and the Environment: Anticipating the Policy Challenges, General Distribution Document, Paris.

36. A recent study carried out by the JWP summarises and discusses a wide range of empirical work and country experiences concerning the environmental effects of agricultural policy reform and trade liberalisation. The study includes a chapter on the international effects of reform, in which a number of trade-related issues are addressed. These include the environmental effects of: shifts in the location of production; increases in freight traffic; higher risk of pests and diseases; and higher income growth. The study addresses domestic and cross-border environmental effects concerning soils, water, air, biodiversity, wildlife habitats and landscape, but also global environmental effects such as those arising from the emission of greenhouse gases and ozone depleting substances.

OECD (1998), The Environmental Effects of Reforming Agricultural Policies, Paris.

37. The main analytical results and policy conclusions of the work carried out by the JWP since 1993 have been summarised in a synthesis report, published in 1998. This report reiterates the conclusions of the earlier work and puts them into a broader policy context. It also includes preliminary conclusions and recommendations whereby agriculture can contribute to improved environmental performance and establishes operational criteria for agri-environmental measures that are aimed at environmental objectives. The report emphasises that agricultural policy reform and trade liberalisation are necessary elements of a sustainable environmental strategy to address environmental issues that are not taken into account by markets, in ways that are least distorting for production and trade.

OECD (1998), Agriculture and the Environment: Issues and Policies, Paris.

38. Work undertaken elsewhere in the OECD includes a study on the relationship between trade liberalisation, freight movements and the environment. This study, which was initiated by the Joint Session of Trade and Environment Experts, was published in 1997. It examines the extent to which trade liberalisation, through growth in transportation, increases the pressure on the environment. The two major questions addressed are: (i) do the changes in international freight associated with trade liberalisation have a significant impact on the environment; and (ii) do ongoing structural reforms in the transportation sector benefit the environment? The Uruguay Round trade liberalisation commitments are used as the basis for simulation analysis, and agricultural commodities are among the traded goods that are analysed.

OECD (1997), Freight and the Environment: Effects of Trade Liberalisation and Transport Sector Reforms, General Distribution Document, Paris.

Possible future directions

39. While the work on agricultural trade and the environment carried out in the OECD has provided considerable insight into the linkages between policies, trade flows and the environment, it has also revealed the complexities of these relationships and the difficulties in making policy recommendations in a situation where policy effects are hard to quantify and often site-specific. Future work will look at questions such as: What are the implications of the environmental and agri-environmental policy measures implemented by Member countries in recent years for competitiveness and trade? Where policy intervention is necessary how can agri-environmental measures be designed that minimise production and trade distortions? What are the likely effects of trade liberalisation on sustainable resource use and the environment, and how can they be analysed? In the areas of potential conflict between environmental protection and trade liberalisation, what is the emerging experience in designing policy measures to reduce or avoid conflict?

40. These are some of the questions that would need to be addressed to ensure that trade liberalisation, by reducing the distortions associated with protectionist policies, encouraging a more efficient allocation of resources and fostering economic growth, also improves environmental performance. At the heart of this issue is the question of identifying where intervention is necessary and how effective environmental policies can be implemented so that the environmental costs and benefits of agriculture are fully accounted for in farmers' production decisions. The search for appropriate policy solutions will extend beyond agricultural and agri-environmental policies to include considerations such as how transportation policy can contribute to reducing traffic pollution from expanded trade, and whether the current agreements on sanitary and phytosanitary measures are sufficient to address the risk of plant and animal pests and diseases entering a country via traded goods.

41. The 1999-2000 draft programme of work of the Agriculture Directorate proposes work in some of these areas. A closer look at the effects of trade liberalisation on environmental performance, and further analysis of the impacts of domestic agricultural and environmental measures on trade, are both the subject of planned analysis. Proposed work in related areas, including the evaluation of direct payments as an instrument for policy targeting and the analysis of the policy implications of multifunctionality, may also contribute to a better understanding of the policy options for agricultural trade and the environment.

Price and income variability, food security

42. Price variability coupled with intrinsic output fluctuations due to the effects of weather and other uncontrollable factors make agriculture a risky business. In many OECD countries domestic price variability has been limited due to policies which insulate producers from world market price fluctuations. With a move to a more liberalised trading environment, international price fluctuations could diminish, but domestic price fluctuations could increase. This has led countries to reflect on the nature of price variability and its implications for farm incomes as well as for food security in non-OECD countries.

43. Within the context of a market oriented policy reform and trade liberalisation, the OECD has explored several aspects of the price and income variability issue. For instance in 1993, a study on price variability explored factors explaining the short run dynamics of international commodity prices with particular attention given to macroeconomic factors. The paper also raised questions about the efficiency of these markets as processors of information on market fundamentals. The impacts of different trade policy measures on international price variability were explored using a simple stochastic simulation model. Comparisons of the relative impacts of these measures on world price variability are made in an attempt to discern the degree to which trade policy choices may affect price variability. The role of government in developing infrastructures to handle supply and demand fluctuations and thus minimise food security risks in non-OECD countries has also been explored.

**OECD (1998), Impact of Selected Agricultural Policy Instruments on International
OECD Observer (1996/97), Blandford, D. and Viatte, G., Ensuring Global Food
Security, Vol. 203, Dec-Jan, Paris.**

**OECD (1993), Commodity Price Variability: Its Nature and Causes
-- OCDE/GD(93)71, Paris.**

Price Variability -- COM/AGR/APM/TD/WP(98)6, Unpublished, Paris.

44. In its work on income variability, the OECD Secretariat has attempted to identify policy measures which may be used to shield the farm sector from the consequences of extreme income volatility. It raises the issue of defining the level of income variability beyond which some type of policy intervention may be deemed appropriate and seeks to identify measures that are non distorting with respect to long run resource allocation. The role of publicly funded safety nets as well as of private insurance schemes is discussed in the context of policy reform options. In addition to government interventions, the OECD has examined risk management solutions available through the private sector. The implications of developments in technology, providing cheaper and more efficient risk management to farmers are also explored (1997).

**OECD (1997), Price Variability in Cereal Markets and Risk Management Strategies
for Market Participants -- AGR/CA/APM/CFS(97)8, Unpublished, Paris.**

**OECD Observer (1997), Electronic Markets in the Agro-Food Sector, No. 208,
Oct/Nov, Paris.**

Possible future directions

45. While no specific work is planned in this area, it may be possible to examine certain aspects of price and income variability under alternative trade and domestic policy reform options within the OECD Secretariat's AGLINK modelling framework. For instance, which policy reform measures are likely to increase or decrease international price variability? The present framework of the URAA permits governments to compensate farmers both in the case of natural disasters and where farm incomes fall below a given mean level. Does this provision provide a sufficient degree of income stability for medium term decision making? Is it useful to explore further both public and private sector options to deal with income variability? In a wider context, to what extent could government interventions in this area put countries, unable to finance such safety nets, at a disadvantage relative to OECD countries?

Competition policy and trade

46. The international aspects of competition policy are of concern to all OECD Member countries as lack of effective competition policy in one country may seriously limit trade opportunities in other countries. Over the past decade numerous aspects of the trade and competition policy interface have been examined and discussed in the OECD, including joint meetings of trade and competition officials. The OECD has broadened the discussions of the interface of trade and competition policy through its work on regulatory reform, and by examining the coherence between trade and competition policies. Almost all of the work undertaken by the OECD refers to the non-agricultural sectors of the economy as the agro-food sector has generally been exempt from competition law.

47. The OECD has attempted to provide an overall framework for analysis of the trade and competition interface. To this end, the complementarities between trade and competition policies, as well as the consistencies and inconsistencies between trade and competition policies and the competition elements of existing WTO agreements have been examined. In addition, work on international options to improve coherence between trade and competition policies has focused on defining possible core principles and minimum common standards. On the institutional side, work has also analysed "positive comity" agreements and co-operation in information sharing among enforcement officials in order to curtail anticompetitive practices generally, as well as those which may raise market access concerns. A general study reviewing the scope and coverage of competition law, known as the Hawk Study (1996), was undertaken for 11 countries. Even if competition law applies in principle, the issue of effective enforcement remains complex both for domestic firms and with respect to the rights of foreign firms. In this light, roundtable discussions between trade and competition officials have been organised to identify potential anticompetitive practices affecting trade, in areas such as horizontal agreements, abuse of dominant position and vertical relationships between firms. Numerous case studies have also been undertaken to provide empirical backing to the analyses.

48. Work is now beginning on the application of competition rules to state-owned enterprises and/or public utilities and to government sponsored conduct. While the agricultural sector has not been, and is

not now, the focus of this work program, certain aspects of the work on state-owned enterprises, as well as competition provisions in existing WTO agreements may implicate the agricultural sector to some extent.

OECD (1996), Antitrust and Market Access: the Scope and Coverage of Competition Laws and the Implications for Trade, study by Prof. Barry Hawk, Paris.

OECD (1995), Anti-competitive Practices, Market Access and Competition Policy in a Global Economy, D. Hay; Public and Private Restraints on Trade: Effects on Investment and Policy Approaches to them, M.A.A. Warner, in Market Access after the Uruguay Round: Investment, Competition and Technology Perspectives, Paris.

49. The OECD has explicitly addressed a number of issues arising directly at the interface of trade and competition policies through work on “new dimensions of market access”. The work on international market contestability develops a conceptual framework to analyse the nature and degree of openness that should be sought for international competition. In this perspective, the study on regulatory reform examined the role which government regulations may exert to promote or to impede competition, market access and trade.

OECD (1996), Measuring the International Contestability of Markets: A Conceptual Approach by E.M. Graham and R.Z. Lawrence -- TD/TC(96)7, Unpublished, Paris.

OECD (1995), E.M. Graham, “Competition Policy and the Trade Agenda”; A. Kaell, D. Ireland and A. Sadeque “Trade Competition Policy and Market Access”; E. Fox “Competition Law and the Next Agenda for the WTO” in New Dimensions in Market Access in a Globalising World Economy, Paris.

OECD (1994), Competition Policy Aspects of the Uruguay Round by E.U. Petersmann -- TD/TC/WP(94)32, Unpublished, Paris

OECD (1994), Trade and Competition Policies: Comparing Objectives and Methods, Trade Policy Issues No. 4, by Professor Nicolaides, Paris.

OECD (1993), Obstacles to Trade and Competition, Paris

50. Although most of the work to date has been of a general nature, there has also been a specific study of competition policy and the agro-food sector. This study focused on the implications of competition policy for domestic markets, with attention also given to the international dimensions of the policies. It raised a number of important issues relevant to the interface between trade and competition policies, for instance, the role of government operated or sanctioned marketing arrangements in the context of the multilateral trade arrangements. In another study, the domestic and international implications of the impact of regulatory reform in the dairy industry were examined. A study of the impact of agricultural policy reform in Sweden also looked at competition policy aspects.

OECD (1996), Competition Policy and the Agro-Food Sector -- OCDE/GD(96)81, Paris.

OECD (1995), The Impact of Dairy Policies on Industry Structure and Performance in Selected OECD countries, Paris.

OECD (1995), Agricultural Policies and Adjustment: The Swedish Experience, Paris.

Future Directions

51. With specific respect to agriculture only limited work is planned for the moment and focuses on the extent to which the benefits of trade policy reform are reduced if competition policy considerations are not also taken into account. The growing importance of this interface in all aspects of the agro-food sector is nonetheless recognised. Thus, it will be particularly important to develop appropriate research strategies and methods.

52. In the future, agricultural exceptions to competition laws could be questioned within the context of the multilateral trading environment. For instance, do government sanctioned marketing arrangements in agriculture (private or state trading organisations) impede market access or promote anti-competitive practices? How can these arrangements be encompassed by multilateral trade rules? Another area likely to gain importance is that of trade and F.D.I. in the agro-food sector and links to agricultural policies.

53. Among the issues arising from the Uruguay Round agreements is the role of intellectual property rights, including among others, patents for new plant varieties, trademarks, and “appellation of origin”. These affect not only OECD countries but also the developing countries who often find that such measures make access to OECD countries difficult. What criteria need to be considered in development of trade and competition policy measures for dealing with such issues? Furthermore, could such measures conflict with current agricultural policies or institutions?