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REPORT ON TRADE AND ENVIRONMENT

The attached report, approved by the Trade Committee and the Environment Policy Committee, is based on the extensive analytical work programme on trade and environment issues carried out by the Joint Working Party on Trade and Environment. It summarises key findings drawn from that work as well as directions for further work.

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REPORT ON TRADE AND ENVIRONMENT TO THE 1999 OECD MINISTERIAL COUNCIL MEETING

I. BACKGROUND

OECD work on trade and environment

1. Since 1991 the OECD Joint Session of Trade and Environment Experts (recently renamed the Joint Working Party on Trade and Environment — JWP) has been meeting regularly to promote compatibility and mutual reinforcement between trade and environment policies. This is the fifth report to Ministers of the work of this group, and focuses on its principal activities since the last report to Ministers in 1995, as well as on proposals for future work by the group.

2. Several trade/environment topics have also been addressed by other (sector-specific) Committees of the OECD. The Joint Working Party regularly keeps abreast of this work; this report deals only with the work programme of the Joint Working Party itself. The Joint Working Party also maintains close co-ordination with the trade/environment activities of other organisations participating in the field, especially UNEP, UNCTAD and WTO, to ensure that its work is adding value to activities in the field. For example, analytical work in the OECD, such as that on trade and environment agreements and 'win-win' sectors, has received significant attention in the recent WTO Symposium on Trade and Environment.

3. This part of the report is structured along two broad axes: (1) issues related to the *Integration of trade and environment policies,* and (2) *Trade liberalisation and its environmental effects.* The former includes activities related to outlining the principles for integration — the OECD Procedural Guidelines on Trade and Environment — and several practical examples including the use of trade measures in Multilateral Environmental Agreements (MEAs); sustainable product policies and their trade implications. The second axis includes analysis of three industry sectors in which liberalisation is ongoing, environmental goods and services, fossil fuels and freight transport.

II. CURRENT AND COMPLETED WORK

Integration of trade and environment policies

4. The objective of the OECD work in the area of trade and environment is to foster the compatibility of trade and environment policies and thereby to promote sustainable development. The JWP has undertaken analysis on a range of topics that integrate trade and environment issues and policies. A major factor underpinning this work has been the OECD Procedural Guidelines on Trade and Environment, which advocate, *inter alia*, an inclusive multi-stakeholder approach to issues which concern both policy areas. Substantive areas of research in this field have included an examination of the experience with the use of trade measures in Multilateral Environmental Agreements (MEAs), involving e.g. analysis of their effectiveness in achieving the environmental objectives and of the relationships between the trade provisions of the MEAs and the multilateral trade system. The JWP also considered a range of environment-related product policies intended to reduce the environmental impact of product consumption, using measures that may also have impacts on trade.

OECD Procedural Guidelines on Trade and Environment

5. Since 1993, the OECD Procedural Guidelines on Trade and Environment have provided guidance to Member countries on ways of increasing the integration and mutual reinforcement of trade/ environment activities and policies. Briefly, these Guidelines encourage: transparency and consultation with civil society; the review of trade and environment policies and agreements from the perspective of the other policy area; international co-operation in environmental action; and the involvement of all stakeholders in solving trade or environmental disputes.

6. The JWP undertook reviews of Member governments' actions to implement the Guidelines in 1995 and again in 1998. These reviews invited governments to identify policies, procedures or publications they had taken to implement the Guidelines; the extent to which the Guidelines had been disseminated among government and non-government organisations; as well as difficulties encountered in their implementation. Twenty-five Member countries and the European Commission submitted responses to the questionnaire. The results of the 1998 review are now being assimilated, and a paper highlighting common themes in terms of successes and difficulties in implementing the Guidelines is in the course of preparation.

7. With regard to the transparency/consultation component of the Guidelines**,** the Joint Working Party regularly holds consultation workshops with non-governmental representatives invited by Member governments. During the last such consultation in December 1998, discussion focused particularly on: i) the forthcoming Round of trade negotiations and the need to consider their environmental implications, and ii) the importance of transparency in government and consultation with civil society. Following on from this second topic, a series of case studies of mechanisms for consultation with civil society is being undertaken currently in several Member countries.

Use of trade measures in Multilateral Environmental Agreements (MEAs)

8. Since 1996, the Joint Working Party has undertaken case studies examining the use of trade measures in three separate MEAs: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); the Montreal Protocol on Substances that Deplete the Ozone Layer; and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their

Disposal. A synthesis report summarises the main issues raised in the case studies and draws out key lessons to assist policy-makers in deciding whether, and if so, how, it may be appropriate to include trade measures in future MEAs.

9. Despite key differences among these three MEAs, some common policy approaches were identified, including the use of the precautionary principle, differentiated responsibilities, co-operative non-compliance mechanisms and prior informed consent procedures. Several common implementation difficulties were also identified, in particular, inadequate resources for effective implementation and enforcement and illegal trade.

10. In CITES and the Basel Convention, the issues, and therefore, trade aspects which these Conventions address are just one part of the environmental problem, however, establishing systems to regulate and restrict trade reduces harmful transactions and brings more information on environmental aspects into market decisions. The Montreal Protocol uses a comprehensive package of policy measures designed to reduce (and eventually, to eliminate) the production of ozone-depleting substances. Incorporating trade provisions in this agreement allowed the regulatory system to address the economic structure of the industry world-wide.

11. MEAs have been shown to be dynamic instruments, with continuous improvement occurring through the regular meetings of the Parties. The use of trade measures has also evolved in the MEAs studied. Trade measures have tended to become more nuanced over time as environmental and economic contexts have been better understood, as confidence in international legal regimes has grown, and as sustainable development has come to be a more central guiding concept.

12. Some common difficulties have been noted with the use of trade measures in these MEAs. In general, controlling illegal trade is among the largest of these. Effective implementation and enforcement is required to make trade measures work, which necessitates greater attention to the human, financial and technical resources required of Parties, particularly developing countries.

13. Broadly, the studies conclude that trade measures should not be seen in isolation from other related policies. Often they are part of a broader package of reinforcing policy instruments. Sometimes trade provisions make other regulations more effective, and sometimes other instruments are needed to make trade-based regulation more effective. Nevertheless, it seems that trade measures have been most effective when they have been directed at specific problems and pursuant to specific objectives.

14. Some lessons emerging include the following:

- In general, trade measures can be an appropriate policy measure to use in multilateral environmental agreements, *inter alia*:

  a) when the international community has agreed to tackle and manage collectively international trade as a part of the environmental problem;

  b) when trade controls are required to make regulatory systems comprehensive in their coverage;

  c) to discourage free-riding which can often be a barrier to effective international co-operation; and

  d) to ensure compliance with the MEA.

15. The use of trade measures should of course be carefully designed and targeted to the environmental objective:

- As with all policy development, prior assessments should be made of the potential environmental and economic ramifications of trade measures, particularly those that are highly restrictive such as bans;
- Potential difficulties such as illegal trade and inadequate technical and institutional capacity in some countries should be taken into account from the beginning;
- The current dynamism and continuous improvement present in MEAs should continue, with policy instruments including trade measures being adjusted and made more flexible as appropriate;
- Trade measures which treat classes of countries in different ways should be based on clear environment-related criteria;
- Trade and environment policy officials should work in close co-ordination in national capitals, and the WTO, UNEP and MEA Secretariats should continue to develop their dialogue on these issues.

16. A number of factors were identified which contribute to the success of trade measures in MEAs, including:

- genuine multilateral consensus on the environmental problem;
- public and NGO support;
- a strong scientific basis for policy action;
- the use of a comprehensive and balanced package of policy instruments;
- the use of policies which are based on the underlying economics;
- sufficient funds and technical co-operation resources to establish implementation and enforcement capacity and encourage membership, particularly by developing countries;
- monitoring and non-compliance mechanisms;
- strong market signals about an end-point, combined with realistic transition periods, will encourage innovation and allow for cost-effective solutions;
- additional transition periods for developing countries can help lower adjustment costs;
- reducing the benefits to be gained from free-riding increases membership; and
- flexibility in trade controls can maximise the environmental and economic benefits – e.g. ranching and national quotas in CITES, and Article 11 Agreements in the Basel Convention.

17. Salient factors limiting success included:

- lack of funds for implementation and enforcement;
- illegal trade and inadequate recognition of underlying economics;
- over-reliance on one type of control, such as a trade ban;
- inadequate reporting of information by Parties;

- insufficient incentives for participation and compliance;
- ambiguity and complexity in administering an MEA, particularly difficulty in determining whether particular shipments are covered by the relevant Agreement;
- inadequate database for understanding environmental issues and subsequent policy development, and
- general non-compliance.

18. By incorporating trade measures, these MEAs necessarily interact with the international trading system. Although situations can be envisaged whereby a State is unable to meet simultaneously both its obligations under the WTO and a given MEA, it is noteworthy that to date trade measures in widely-supported MEAs have not been challenged internationally. Indeed, policy dialogue and co-ordination on the use of trade measures in MEAs have improved significantly in recent years.

Sustainable product policies and trade

19. Sustainable product policies aim to reduce the negative effects of consumption on the environment. A number of recent Joint Working Party projects have been directed toward this goal. Product policies operate in a number of ways — for example, by providing information for consumers (eco-labelling), by shifting responsibility for products at the end of their useful life (extended producer responsibility), or by targeting the purchasing activities of government as a major consumer (greener public purchasing). The policies tend to take a life-cycle approach, and can have particular trade concerns when they reach into the production phase of a product's life cycle, because of the greater likelihood that these (both national and sub-national) policies will affect trade with foreign producers.

Extended producer responsibility (EPR)

20. Extended producer responsibility (EPR) seeks to make the producer responsible (financially and often also physically) for its products after their use by consumers, on the premise that the producer has had some control over the composition of the product, its longevity, and ultimately the ease of its recycling and disposal. EPR implies that producers should take into account, in production decisions, the environmental impacts occurring throughout a product's life cycle. Under this approach, both upstream considerations (such as the selection of materials), and downstream effects (such as ease of recycling and disposal), should become integral parts of product design and manufacturing strategies.

21. However there can be trade concerns about such a policy approach, especially the potential effects on foreign producers, in the context of the need to obtain information about EPR, and to deal with products or their packaging after their use. Trade effects can also arise in the markets for recycled goods, by increasing volumes and potentially driving down prices.

22. EPR programmes vary among OECD countries, but common elements typically include: i) the programmes tend to focus on the post-consumption phase of products (i.e. the waste phase), and ii) they completely or partially shift financial responsibility for the management of products in their waste phase from government to the private sector. Policies that require the producer and/or retailer to "take back" the product or its packaging after use are the clearest example of extending the producer's responsibility into the post-consumer phase of a product's life cycle.

23. The emergence of Producer Responsibility Organisations (PROs) has provided an economically- and environmentally-sensible solution to the logistical problem of collecting and back-hauling used

products (especially for small exporting firms and for developing country exporters). PROs are purpose-specific entities that arrange for the collection, recycling or recovery of the products concerned, and they relieve individual companies from these responsibilities. Therefore, the impact of EPR on traders increasingly depends on their access to, and treatment by, the PRO.

24. Consultation with representatives of importers in relation to the regulatory requirements of various national schemes and existing PRO approval procedures is very important to alleviate the disadvantage of foreign producers in obtaining and understanding EPR requirements. Advance notice and adequate phase-in periods will increase compliance with EPR programmes, as well as reducing trade disruption.

25. Foreign producers or importers may also face relatively higher costs than their domestic competitors; for example, if more robust and voluminous packaging is required for long-distance trade, or if the product or waste of foreign producers or importers occurs in low volumes for which the PRO charges a higher price per unit for recycling or recovery.

26. EPR programmes also have the potential for a significant impact on markets for recyclable materials by creating additional supplies of these materials. When EPR programmes commenced, the export of surplus secondary materials at low prices, disrupted markets and undercut recycling efforts in the receiving countries. However, markets for recyclable materials have since deepened and there is now increased recycling capacity and expanded uses for recycled material.

27. In sum, the following trade issues are for consideration when designing EPR programmes:

- Have importers had an opportunity to participate in consultation mechanisms and/or information sessions about proposed EPR policies?

- Has information about the proposed EPR policies been disseminated to trade associations and notified to the WTO?

- Will there be adequate time for producers, especially importers including developing country importers, to adapt smoothly to new systems?

- Is there a need for technical assistance to developing country importers?

- Can significant disruptions to secondary material markets be anticipated - are there likely to be problems for trading partners that could perhaps be avoided through pro-active actions? Export subsidies to dispose of stockpiles of collected materials could be illegal under the WTO.

- How will an EPR program mesh with existing requirements such as those governing hazardous waste movements?

- Is the legislation establishing an EPR system non-discriminatory as concerns the country of origin of the products? This fundamental WTO requirement of non-discrimination includes national treatment and most-favored nation treatment. Both formal and *de facto* discrimination against imported products could be challenged under the WTO.

- Can the operation of an EPR program be said to create unnecessary barriers to trade? Is a measure more trade-restrictive than necessary to achieve its purpose? If so, it may be vulnerable to challenge under the TBT from adversely affected parties.

- Do EPR programs specify recycled content or process or production methods which products must meet in order to be imported or offered for sale? This is a sensitive trade/environment policy question.

Eco-labelling

28. Eco-labelling is a voluntary tool to promote environmentally preferable consumption and production. Eco-labels are meant to identify a portion of products in a particular product category, to indicate overall environmental quality of the product, and to encourage consumers to buy them.

29. Trade concerns can arise in relation to the transparency of the process of awarding the eco-label, (particularly for producers not represented domestically). The need for transparency is all the more critical, including in the choice of product categories covered by the scheme, to the extent that eco-labels move beyond the original intention for eco-labelled products of occupying a small niche in the market to become a *de facto* voluntary standard. Increasingly, eco-labelling programmes tend to be based on life-cycle criteria, including production-related criteria. Such criteria may raise trade concerns if the inclusion of the environmental conditions of the importing country proves to be a form of disguised protectionism.

30. Information gathered during a 1996 study of the *actual* market, trade and environmental effects of eco-labelling schemes operating in OECD countries, recognising data limitations, did not reveal hard evidence of changes in trade flows arising from these schemes. However access to information and participation in criteria development was found to be more difficult for foreign producers.

31. From this study a number of steps were identified which could alleviate potential trade concerns. These include ensuring that there is wide consultation on eco-label criteria and that comments on the draft criteria are taken into account. A particularly high level of transparency and consultation is important when criteria related to the production phase of products are included. The establishment of an international notification system of information on all eco-labelling programmes has also been suggested. Mutual recognition of, and granting equivalency to, foreign eco-labels can also alleviate trade concerns of potential domestic biases in eco-labelling schemes.

Greening of public purchasing (GPP)

32. In many OECD member countries *greener public purchasing* (GPP) programmes at central and sub-central levels promote the purchase by public authorities of environmentally-preferable products. Trade concerns may arise when GPP specifications appear to favour domestic producers. General procurement rules for public agencies are based on the principles of non-discrimination among potential suppliers and the fostering of competition to obtain the lowest price and best product. These existing rules related to government procurement (including the plurilateral Agreement on Government Procurement (GPA), were not crafted for the purpose of "greening" public purchasing. Nonetheless their interpretation, if they respect the fundamental underlying principles, would appear to offer the latitude to accommodate GPP programmes. Furthermore, on the basis of OECD investigations, there is no evidence that these rules have impeded the establishment of programmes to encourage the purchase of environmentally-preferable products. Although certain limitations in procurement practices have been identified, such as clauses which prevent the purchase of refurbished goods, overall, public purchasing holds the potential to contribute to environmental policy objectives.

33. There are two basic options when evaluating tenders or awarding contracts to supply governments, both of which appear to allow environmental criteria to be incorporated into the tender documents. Under the first option - *lowest price/tender* - the environmental criteria would be included in the technical specifications. Such specifications should not create "unnecessary obstacles" to trade; and should accord preference ("where appropriate") for international (or European) standards, where they exist, according to most existing procurement rules. The second evaluation tool - most (economically) advantageous tender - would appear to allow greater flexibility to select products on the basis of their environmental qualities, so long as the tender documentation adequately justifies the final choice. In all cases, transparency needs to be maintained in relation to the criteria being applied in a GPP scheme.

34. A life-cycle approach is increasingly being used in GPP, and tools are being developed to allow a reasonably objective examination of a product's environmental impact throughout its life. However, trade concerns may arise when criteria used in GPP schemes relate to processes and production methods (PPMs) or try to address transport externalities. That is, tenders may contain specifications which are not apparent in the physical characteristics of the traded good, or involve externalities that arise from *production* rather than consumption. Concerning the applicable WTO procurement rules, it is of relevance to note the exclusion of government purchasing from the scope of the Agreement on Technical Barriers to Trade (TBT), the General Agreement on Trade in Services (GATS) and the "national treatment" obligations in Article III of the GATT. Government purchasing, on the other hand, is specified as being the domain of the plurilateral (currently with 22 signatories) GPA, the text of which does not contain the concept of *like product*. No court cases/panel disputes have been brought, to date, on the coverage of PPM-based technical specifications under the plurilateral procurement rules.

35. Another envisaged approach to GPP has been to include criteria requiring suppliers to qualify for certification under an environmental management system (EMS), such as the European Management and Audit System (EMAS) or ISO 14001. Since EMSs do not deal directly with the characteristics of the (greener) product, nor generally provide a measure of the firm's *actual* environmental performance, a number of OECD Member countries consider this as a factor which is supplementary to product-based specifications. With respect to product specifications, the use of eco-labels, or more particularly, the adoption of their underlying criteria, to set tender specifications, is an approach being followed by some governments. A concern common to both EMSs and eco-labels is that, whereas they are both voluntary schemes, inclusion of these specific schemes in GPP criteria, rather than the underlying rules and criteria they are based on, might in practice, give them a more mandatory character.

36. Of relevance also is the *practice* of public purchasing, which has been going through profound changes. In many OECD countries the trend is towards decentralisation of purchasing decisions, including greater use of credit cards and privatising the purchasing service. With smaller contracts and more individuals involved, the situation is moving towards one not dissimilar to that of a private consumer making a choice in the market place. The trend towards smaller contracts (which may be below the threshold value at which procurement rules take effect) may offer greater latitude for the greening of purchasing, for example through the provision of information to purchasers and voluntary instruments such as eco-labelling, guidebooks, and informal networks. Whereas this trend towards decentralisation and smaller contracts may be widespread, large purchases will continue to take place. Transparent and competitive procurement processes remain important for alleviating trade policy concerns in the context of large and small transactions.

Trade liberalisation and its environmental effects

37. Work of the Joint Working Party on the environmental effects of trade liberalisation has deepened in recent years, moving from identifying broad effects on the economy generally, to analysing effects in specific market sectors. In general terms, OECD governments view trade liberalisation as a positive agent for the environment — by improving resource allocation, promoting economic growth and increasing general welfare — provided effective environmental policies are in place. The sectors in which trade liberalisation has been studied include the environmental goods and services sector which, because of the nature of the products involved, could be expected to lead to positive environmental effects. In the other sector studied — the freight transport sector — the environmental outcome depended more on the timing and sequencing of the structural reform in the sector. For the fossil fuel sector the study is still underway.

Environmental effects of liberalising trade in environmental goods and services

38. Liberalising trade in environmental goods and services (EGS) can have benefits for both trade and the environment. If tariffs and other trade-distorting measures are reduced, environmental technologies can be made more readily available and technology transfers increased. By reducing the prices of environmental goods and services, limited environmental protection budgets can be stretched further than they otherwise could have been. Expanded market opportunities can encourage technological progress, as well as providing economies of scale and increased efficiency.

39. Thus trade liberalisation in environmental goods and services has a strong potential for a win-win result for both trade and the environment. However, there is also a parallel need to accompany trade liberalisation of EGS with measures to ensure strengthened environmental protection (alongside the expected economic benefits of increased market access). Such measures need to:

- encourage domestic environmental regulatory reform;
- address the timing and sequence of liberalisation of trade in services in relation to that for goods;
- avoid distortions which favour end-of-pipe technologies over cleaner technologies; and
- strengthen information and assistance tailored to the needs of emerging economies on pollution prevention and cleaner technologies.

40. Demand for environmental goods and services is dependent on domestic and international environmental regulations and their enforcement; consumer pressure ('green consumerism') and community pressure. In a regulatory framework which ensures that the type of environmental goods and services demanded is appropriate, trade liberalisation can help to ensure the availability of those products. Also important is the choice of environmental policy instruments and the type of compliance model. OECD studies have recognised certain guiding principles, including the need for incentives; a focus on pollution prevention; and a long-term environmental strategy with a flexible regulatory framework.

41. It is important to ensure an appropriate balance between trade liberalisation in environmental goods and in environmental services, since goods (hardware) must operate in conjunction with services (software). Issues to consider include the need to distinguish among different categories of environmental services, and proposals to extend some categories to a wider range of services. The differences between

trade classifications relate to the purpose of the activity rather than to the services involved, which also raises the issue of how to ascertain whether a service is being provided directly for the purpose of environmental protection and improved environmental performance. Finally, the timing of the liberalisation of services needs to be considered in relation to discussions on market access for environmental goods.

42. Policy coherence needs to be addressed, so that environmental policies which are evolving from pollution control to pollution prevention, (i.e. from end-of-pipe equipment to cleaner technologies and environmental audit systems), are supported by other public policies. In this context, the rapid phasing-out of direct tax concessions, accelerated depreciation and subsidies for end-of-pipe controls was recommended in 1992, in the context of the OECD's technology and environment programme.

43. There is a wider spectrum of demand in emerging economy countries and a growing need for co-operative arrangements which emphasise know-how over hardware. Building know-how or capacity, including on technology adaptation, is essential therefore to allow emerging economies to select the types of technologies appropriate for their conditions. Certain developing countries may move up a traditional demand curve for environmental services while others may be able to 'leapfrog', e.g. to pollution prevention and the use of cleaner technologies.

Environmental effects of liberalising trade in fossil fuels

44. Fossil fuels represent almost the entirety of internationally traded energy. Among the three fossil fuels, crude oil and petroleum products represent 75-80 per cent of international energy trade. Although coal releases the greatest emissions per heat content, due to its dominant share in consumption oil is responsible for the highest total CO2 emissions. Carbon abatement policies, including fuel switching, can also bring ancillary benefits in terms of SOx and NOx emissions reductions.

45. Governments intervene heavily in energy markets, through taxation, government ownership, subsidised lending and trade barriers. Accordingly, price signals within this sector have been distorted, and domestic inter-fuel substitution, energy trade, and regional development have been affected on a widespread basis. Results of the first stage of the Joint Working Party work in this field indicate that significant price distortions exist in this industry and that substantial shifts in the patterns of trade and production, with accompanying environmental changes, would flow from continuing trade reforms.

46. The recent JWP study quantified the impact of these interventions on market prices using the "price gap" approach, which compares end-user prices within the industry and power sectors in 27 countries with the cost of replacement energy from abroad. The countries analysed comprised the world's largest fossil fuel producing and consuming nations. Evidence of widespread pricing distortions was found, with deviations from the reference prices totalling nearly $60 billion per year.

47. Pricing distortions varied widely across countries and fuels. Large energy exporters were more likely to subsidise domestic consumption of the exported fuels, while large energy importers, with few indigenous energy resources, were more likely to have policies keeping domestic prices artificially high. Overall, domestic prices for the fuels evaluated seemed to exceed, rather than to lag, world reference prices. Such positive price gaps are neutral with regard to eco-taxes designed to internalise externalities, as the price gap approach compares prices that are net of taxation. In terms of fuels, much larger distortions affected coal and gas markets than those for oil. The first stage of the analysis suggests that there would be large shifts in energy trade flows, were energy market reforms to continue, and price signals to become a more central factor in decision-making.

48. The relationship between trade liberalisation/ subsidy reform and their environmental effects is a complex one. Trade reforms can be a force for environmental improvement. Environmental benefits can be expected from exposing government-owned energy operations to competition, rationalising inefficient and polluting coal mining operations, and reforms in energy transportation which will improve the efficiency of pipeline and terminal operations, and provide cleaner fuels, such as gas, to new areas, replacing coal and oil. On the other hand, "scale" effects associated with reducing fossil fuel prices that had previously been, on average, artificially high due to certain kinds of government intervention, might in some cases lead to increased stresses on the environment. It is not yet possible to draw firm conclusions as the analysis has not yet been completed.

49. The "price gap" approach provides a lower-bound estimate of the impact of government interventions, since the price gap measure itself consistently understates the total value of support provided to the energy sector by various governments. Accordingly, the free trade benefits, and their environmental implications, are likely to be substantially higher than those projected by the price gap analysis.

Trade liberalisation and structural reform in the freight transport sector

50. Economic integration and the reduction of barriers to trade have increased the transborder flows of goods in terms of freight movements. There is some concern that increased environmental damage may flow from the economic growth and increased transactions that are anticipated from trade liberalisation. OECD work indicates that trade liberalisation itself is not likely to be a substantial cause of increased freight. But where structural reform has taken place in the transport sector, more favourable results for the economy and the environment have resulted when reforms are undertaken simultaneously in the road, rail and other transport sectors, and when environmental externalities are internalised.

51. The Joint Working Party recently examined the environmental effects of the international transport of goods attributable to trade liberalisation and liberalisation/structural reform in the transport sector itself. The study looked at the extent to which trade liberalisation is contributing to increased pressure on the environment from the growth in transport and in particular: (a) whether changed movements in international freight associated with trade liberalisation are a significant factor; and (b) whether the reforms undertaken so far have had negative effects due to the increased scale of economic activity; or (c) whether these reforms have, on the other hand, engendered economic efficiencies which have led to positive environmental efficiencies.

52. A simulation of changes in trade flows arising from the Uruguay Round liberalisation commitments predicted only a relatively small increase globally in trade volumes and a slightly greater increase in intercontinental transport flows. These results showed that the magnitude and direction of such changes vary widely by export or import flow, commodity sector and region. The scale effect was however far from automatic; certain bilateral relations and certain commodity groups actually would undergo a decrease in transport. Overall increases in the global volume of goods traded due to the Uruguay Round liberalisation represented in the order of three to four per cent and the international transport associated with these changes in regional trade flows in the range of four to five per cent. This suggests that trade liberalisation is not a substantial cause of the predicted increases in total freight.

53. Traditionally, transport has been highly regulated in OECD economies. The Joint Working Party therefore examined the effects of trade liberalisation and structural reform in the transport sector in North America and Europe. In North America (and particularly, in the United States), deregulation was undertaken almost simultaneously in the rail and road sectors. Important economic gains have been made, which have permitted environmental improvements through new technologies and infrastructure

investments. Energy consumption for the sector has gone down and intercity freight movements by rail have increased relative to those by road.

54. By contrast, in Europe, where rail reforms have lagged behind the road sector, road haulage has dramatically increased, both in absolute and in relative terms. The Joint Working Party identified several reasons for the loss of market share by rail, inland waterways, coastal shipping or pipelines. Among these were the manner (including the pace and sequencing) of liberalisation in the various transport modes. European common market policy focused first on the road sector and later on rail and inland waterway sector reforms.

55. In Europe, competitive conditions continue to vary greatly between road and other transport forms. A major issue is the non-internalisation of environmental externalities in the road sector. Social regulations (e.g. driving and rest times- key factors in intermodal competition), as well as fiscal and safety regulations, often differ. Accordingly, the potential environmental advantages of rail, waterway shipping and pipelines are not transformed into market advantages. EU liberalisation policy has benefited the less environment-friendly modes of transport, and accelerated the declining market share of rail and inland waterways. On the other hand, the analysis suggests that the internalisation of environmental externalities, while important, would not be sufficient to recapture market shares for the more environmentally-friendly freight transport modes.

III. FUTURE OECD WORK ON TRADE AND ENVIRONMENT

56. It is essential that the forthcoming WTO negotiations contribute to the achievement of sustainable development. *Trade and Environment* is a key issue to be considered and it is important that environmental concerns be taken into account in the WTO agreements. Transparency and effective engagement of civil society are necessary for continued public support for an open multilateral trading system.

57. Both the OECD Trade Committee and the Environmental Policy Committee have noted the increasing political visibility of trade and environment issues and the need to continue work towards mutual compatibility of trade and environmental policies. In this regard, there is a continued role for the Joint Working Party to conduct analysis that can support the increased integration of environmental and trade policy making, called for in the 1993 Procedural Guidelines. It is also recalled that OECD work on trade and environment has a dual focus, both supporting improved co-ordination at the national level as well as providing analytical support for discussions of relevance in other international fora. Analysis should also take into account developing country interests.

58. The JWP's analysis should contribute to giving sustainable development and protection of the environment a stronger role in future trade discussions, including the upcoming WTO negotiations, and should support better accommodation of environmental policy in the WTO. Similarly, analysis should focus on enhancing the effectiveness of international environmental co-operation and avoiding undue effects on trade. Such analysis should also help highlight the importance of trade and environmental policy integration at national and international level.

59. The JWP should undertake analysis on how to accommodate key environmental objectives, principles and commitments into the multilateral trading system. Special focus should be on interlinkages between important trade and environmental principles, including those contained in the Rio Declaration. The JWP will conduct an in-depth discussion on how and where best to integrate these policy areas, both at national and international level.

60. The Committees therefore strongly support the analytical work of the JWP and propose that the JWP continue with its analysis, build on its results to date and endeavour to draw lessons and conclusions from the analytical work wherever possible. They have approved the following proposed work programme of new and continuing analysis, subject to availability of resources and endorsed the setting of priorities. Priorities in the work will be assessed by first addressing work in progress. In accordance with past practice in the JWP, work on new areas will be decided as Members come forth with concrete study proposals. The JWP will report again on progress with this new phase of work to its parent Committees in 2001.

Areas for analysis

Transparency

61. The JWP is currently undertaking a limited number of case studies in OECD countries, to document existing mechanisms and practices in relation to transparency and consultation with civil society, and to elicit feedback from civil society organisations on the working of these mechanisms. This work is based on the first of the OECD Procedural Guidelines on Trade and Environment. After assessing the first stage of the studies, future work should build on the outcomes of case studies, and expand the analysis to other OECD countries, including a representative sample of countries using different approaches to transparency and consultation. By focussing on difficulties encountered and approaches which work the best, the exercise would be aimed at drawing lessons for good practices. It should also turn to examine transparency mechanisms and practices in other multilateral organisations dealing with trade and environment issues.

Environmental Effects of Trade Liberalisation

62. The JWP will continue its quantitative and qualitative assessment of the environmental costs and benefits of trade liberalisation. Future work in assessing the environmental effects of trade liberalisation will continue to look at particular sectors, including the environmental effects stemming from changes in relative pricing, technical innovation and changes in resource allocation associated with trade liberalisation. Outreach activities with emerging economies will be undertaken, including a workshop on barriers to trade in goods and services, with a session on 'win-win' sectors, including environmental goods and services.

63. At the sectoral level, the JWP will pursue the project underway, examining the environmental effects of fossil fuel trade liberalisation, in collaboration with an IEA project focusing on subsidies in developing countries and other OECD work on climate change. In particular, it will take advantage of the in-house updating of GREEN to model the environmental effects in terms of emissions associated with shifts in the direction and volume of the fossil fuels trade following the reduction/elimination of trade distorting measures. Also, ongoing work on the effects of the liberalisation of the environmental goods and services industry will be further developed.

64. The JWP will work closely with the Joint Working Party on Agriculture and Environment on the environmental effects of agricultural trade liberalisation. That group is currently outlining the issues and linkages between agricultural trade liberalisation and domestic and global environmental impacts. Issues identified in this process may warrant further development by the JWP. In addition the JWP will also work closely with the Fisheries Committee. In that Committee empirical work is being undertaken on the relationship between government transfers and fishing stocks. The JWP could build on that research in an examination of the environmental effects of trade liberalisation, taking into account work in FAO under the

Action Plan for Vessel Capacity Regulation. Work in both areas should include analysis of the environmental effects of the removal of trade distortions, (including subsidies which have that effect). Recognising that the work in the other OECD groups is in its initial stages, the JWP will contribute to and complement, as appropriate, activities in these two groups.

Assessment of Environmental and Trade Agreements

65. The JWP should continue to play an important role in the area of environmental and trade assessments. Several areas have been identified relating to environmental assessment of trade agreements and trade assessment of environmental agreements in which JWP analysis and/or discussion would be productive. First, the JWP should encourage Members to conduct trade and environmental examinations, reviews and follow-up, as outlined in the 1993 Guidelines, with respect to ongoing or future environmental and trade agreements. The role of the JWP should be to provide a forum for governments to share experiences and lessons learned from these assessments, to highlight areas to which attention should be paid in future negotiations and to draw attention to potential areas of conflict as well as potential win-win situations.

66. The second proposal involves advancing the development of the OECD *Methodologies for Trade and Environment Reviews*. The OECD *Methodologies* were developed to give assistance to Members in operationalising the OECD Procedural Guideline on trade and environment reviews. Since the *Methodologies* were developed, OECD Members have gained experience in the review process in relation to domestic policies, as well as discovering common areas of difficulty. The JWP should look beyond Members' assessment to the feasibility and possible scope of multilateral assessment of environmental and trade agreements. This would involve assessing whether for example the OECD *Methodologies* are a sound basis to move beyond national reviews to multilateral guidelines, as well as taking into account work done in other organisations such as NAFTA, WWF International and the European Union, including the latter's current work on sustainability assessment of the new WTO Round. In particular, the timing and range of issues which should be subject to trade/environment analysis should be further developed. Work should also involve testing, e.g. through case studies of assessment methodologies by applying them to components of existing environmental and trade liberalisation agreements. The JWP should, at the appropriate time, discuss and explore the possibility of carrying out analysis on environmental issues in the context of the upcoming WTO negotiations**.** The JWP will organise a workshop on the state of the art of such methodologies and assessments at national and international level and subsequently draw lessons for future work in the OECD.

Processes and production methods (PPMs)

67. Recognising the work already done by the OECD on PPM issues, as noted in the 1995 *Ministerial Report on Trade and Environment*, the JWP considers PPMs to be an important issue in its future work programme. The JWP will deepen its analysis, including through selected case studies, in particular of PPMs that may have global and transboundary environmental impacts, as well as a review of possible options for dealing with policies and measures underlying PPMs. Member countries are invited to submit relevant examples for analysis.

Multilateral Environmental Agreements (MEAs)

68. The JWP will take account of the ongoing process of development of MEAs and build on analysis already undertaken on the use of trade measures in MEAs for environmental objectives. While recognising that the appropriate set of policy instruments for a particular MEA will be unique, future work could, at the appropriate time, examine approaches involving policy packages including trade and non-trade measures.

Kyoto Protocol and Trade Effects

69. A number of potential trade issues arising from the implementation of the Kyoto Protocol have been identified by the JWP and the group will come back to these issues at an appropriate time when the basic core issues with respect to the flexibility mechanisms are resolved in other fora. Until such time as Member countries make concrete suggestions for work on these trade issues, the group will draw links with the Kyoto Protocol in its ongoing work on how trade barriers such as domestic subsidies and tariffs influence national consumption and trade patterns of fossil fuels.