

WORLD TRADE ORGANIZATION

RESTRICTED

WT/CTE/M/16

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(97-5567)

Committee on Trade and Environment

REPORT OF THE MEETING HELD ON 24-25 NOVEMBER 1997

Note by the Secretariat

1. The Committee on Trade and Environment (CTE) met on 24-25 November 1997 under the chairmanship of Ambassador Björn Ekblom of Finland. The agenda contained in WTO/AIR/718 was adopted.

Item 9 The work programme envisaged in the Decision on Trade in Services and the Environment

2. The representative of the United States presented his delegation's paper (WT/CTE/W/70) on how trade liberalization in the services sector could yield environmental benefits. Improved access to environmentally-friendly technologies would be beneficial for both trade and the environment. Work was currently underway in international fora on services trade liberalization. The paper described environmental services, such as waste handling and facility operations, and implementation and installation of new or existing systems for environmental cleanup. Given that in solving environmental problems, a package of environmental goods and services tended to be designed, it was difficult to separate goods from services. Estimates of the size of the environmental services industry ranged from US\$420 billion to US\$600 billion by 2010. The key barrier to expansion of work had been that industry was responsive rather than proactive to environmental issues, and growth and demand for environmental services had been tied to government regulations. Recently there had been a shift away from regulations and standards as the main instruments for environmental policy to economic instruments, which placed a premium on innovation. New instruments were also being used in the private sector, such as the ISO 14000 environmental management standards, that encouraged innovation. With private sector innovation, traditional barriers to trade would be less relevant. Improved market access increased the availability of services while lowering their costs. Competition also increased the availability of services and encouraged innovation; liberalization in this sector encouraged technology flows which could help especially developing countries build domestic capacity to better achieve their environmental goals. The representative from the Global Environment Facility (GEF) had identified the lack of knowledge about the availability of environmental goods and services as an important impediment to technology transfer. Trade liberalization of environmental services as well as their associated goods would yield both environmental and economic benefits.

3. The representative of India said the Ministerial Decision mandated the CTE to discuss the relationship between trade in services and the environment, including sustainable development. Environmental services should be addressed in the context of defining which services were covered in the WTO and use the UN classification system. Input from the Trade in Services Division should be obtained. It would be difficult to address the focus of the US paper on trade liberalization of environmental services unless it were determined how existing WTO provisions dealt with this area. Discussions on this issue should be conducted in the context of sustainable development.

4. The representative of the European Communities said his delegation supported trade liberalization in environmental services. The Decision on Trade and Services and the Environment called on the CTE to examine the relationship between trade in services and the environment, including the issue of sustainable

development. The CTE had devoted insufficient attention to this Item, which did not correspond to the increasing economic significance of services trade and given the potential for "win-win" situations in which trade liberalization would yield direct environmental benefits. By increasing competition amongst suppliers, more open markets would contribute to reducing the cost of environmental services. Users would have a broader choice of and access to environmental services. Increased services trade would be a vehicle for the transfer of environmentally-sound technologies and would enhance domestic capabilities in recipient countries. It would be useful for the Secretariat to prepare a paper compiling information on trade in environmental services in several areas, such as environmental auditing and consulting, and services for the management and disposal of non-hazardous and hazardous wastes. This issue could be discussed under either Item 6 or 9.

5. The representative of Japan said the US approach to environmental services which referred to a package of environmental solutions incorporating products and services was relevant. Liberalization of environmental services had been highlighted by not only the OECD but APEC. The relation between services and the environment should be further examined, even though, given their intangible nature, data was insufficient. It would be more feasible to examine environmental goods in parallel with environmental services. Work on this Item should examine, for example, the tourism and transport sectors. Although there was an overlap between goods and services, these areas basically fell under different WTO disciplines. There were also relevant GATS Articles other than Article XIV. As trade in services was an evolving issue and work had been in other fora, WT/CTE/W/9 should be updated.

6. The representative of Argentina said it was timely to include the issue raised in the US paper. He asked if this issue fell under Item 9 or 6, particularly regarding the environmental benefits of removing trade distortions. Discussion under Item 9 had focused on the Decision on Trade in Services and the Environment, which mandated the CTE to consider whether it was necessary to modify Article XIV of the GATS. It would be difficult to progress in this regard without progress on examining Article XX under Item 1. There was no point in having an indepth discussion of services trade until an analysis of goods trade had been undertaken. He suggested discussing the paper further under the Market Access Cluster of Items, which offered an opportunity to analyze the "win-win" situations which may result from liberalizing services trade along with the other sectors referred to under Item 6.

7. The representative of Egypt said his delegation would reflect on the US paper. An analysis of environmental goods and services should be viewed from the perspective of sustainable development and should be dealt with in conformity with the provisions of the WTO Agreements.

8. The representative of the United States said the suggestion to focus on the sustainable development aspects of the issue was useful. The US paper highlighted the role liberalization could play in development by increasing the access of developing countries to environmentally-friendly technologies that could help avoid many of the mistakes in the development process of developed countries. This issue could be discussed under either Item 6 or 9.

9. The representative of Norway said, with regard to trade in services and the environment, the CTE should clarify whether GATS Article XIV was sufficient or whether there was a need to include environmental concerns in other GATS Articles. Norway preferred a combination of the two alternatives, whereby environmental concerns would be integrated in Article XIV and other relevant parts of the GATS as had been done for goods, which was in accordance with the CTE's horizontal mandate. When discussing the relationship between trade in services and the environment, the transport and tourism sectors should be examined. It was clearly documented that activities in these two sectors could be environmentally-damaging. The Secretariat should update WT/CTE/W/9, including reference to relevant ongoing work in other international fora. Much work had been undertaken on transport and the environment, for example in the OECD and ECE. There could also be a section addressing services, upon which to base the evaluation of whether Article XIV was sufficient. Concerning the integration of environmental concerns in other parts of the GATS, the work of the Council for Trade in Services on subsidies and domestic regulations had not come very far. It should be ensured that the GATS Working Parties took account of environmental considerations.

10. The representative of Mexico thanked the US for presenting a paper on environmental services, on which her delegation would comment at a further meeting. Discussion under Item 9 had indicated there was no clear distinction between services trade and goods trade, particularly concerning an analysis of the environmental effects. Services were intangible and thus did not create environmental damage *per se*. Environmental damage was connected to the goods linked with the supply of a service. As there was an overlap between services and goods, it had been generally agreed that it would not be possible to discuss services trade in isolation. The mandate in the Decision on Trade in Services and the Environment restricted the discussion to examining whether any modifications were necessary to Article XIV of the GATS. The US paper encompassed market access and an analysis of the environmental benefits resulting from the removal of trade restrictions and distortions to services trade. Mexico suggested work on this issue be based on the approach under Item 6. Nevertheless, it was necessary to have a clear picture of the approach the CTE should give to this discussion before identifying specific sectors of services to analyze.

11. The representative of Switzerland thanked the US for the paper on environmental services. It would be useful to update WT/CTE/W/9, including current work in other international fora on the services sector, particularly transport and tourism.

12. The representative of Nigeria said the US paper was a valuable contribution. The relationship between the removal of trade restrictions and distortions and environmental benefits was that which was being addressed by the US paper. This market access issue should be discussed under Item 6.

13. The representative of Singapore, on behalf of ASEAN, thanked the US for the paper on services trade liberalization. He shared the concerns concerning selecting specific sectors for discussion, such as tourism and transport. The Secretariat could undertake an analysis after the sectors relevant to the services and environment interface had been identified. It would be useful to update WT/CTE/W/9.

14. The representative of Canada said a Secretariat background document on other fora's work which may have a sectoral focus of relevance to the CTE would be useful to help structure future discussion. Canada was flexible as to under which Item this issue was discussed.

15. The observer of UNCTAD said the second session of the UNCTAD Commission on Trade in Goods, Services and Commodities had decided to hold expert meetings on liberalization of environmental services and tourism in 1998.

16. It was agreed that the Secretariat would prepare an update of WT/CTE/W/9.

Item 10 Input to the relevant bodies in respect of appropriate arrangements for relations with intergovernmental and non-governmental organizations referred to in Article V of the WTO

17. The representative of Canada said this was an important issue for the WTO, particularly for the CTE given the range of civil society interests in trade and environment-related discussions. There was also a direct relevance to standards-related issues as discussed in the TBT Committee. The CTE had moved to address these interests and the need for outreach. The May NGO Symposium, organized by the Secretariat, and the September MEA Secretariat session had enriched Members' appreciation of perspectives and developments outside the WTO, as well as encouraging greater understanding among civil society and the MEA Secretariats of WTO Members' views. In this regard, Canada welcomed the NGO Symposium planned for March 1998. Given that this Symposium was under Secretariat auspices, the Secretariat should have a free hand in its organizing, taking into account the experience with the May 1997 Symposium, and should include the full spectrum of civil society, i.e. environmental, developmental and business organizations.

18. Canada looked forward to briefing sessions by MEA Secretariats to increase trade negotiators' awareness of developments in environmental negotiations. Fewer MEA Secretariats should be invited to allow for an in depth discussion and to reinforce domestic policy coordination. The CTE had demonstrated leadership in transparency through the *Trade and Environment Bulletin*, which provided a timely account of CTE discussions. As there was flexibility for WTO Bodies to deviate from the General Council's policy on derestriction, Canada proposed that agendas for CTE meetings be issued as derestricted. For civil society to provide input at the national level, it needed to know what the CTE would discuss and when. While the *Bulletin* provided this information, it was preferable to provide the agendas directly. The CTE should consider case-by-case derestriction of Secretariat documents to allow a more informed debate on issues under discussion. Canada had a general policy to issue its CTE contributions as derestricted after they had been widely consulted in Canada and encouraged other Members to do so to provide civil society with a greater awareness of how policy proposals on trade and environment were developed.

19. The representative of the United States said the NGO Symposiums provided an important avenue for an exchange of views between Members and civil society. While this was a useful tool, the CTE could find further innovative ways to draw on the knowledge in civil society and ensure that they had an understanding of the CTE's work. Access to documentation was an important means of ensuring transparency; further work should be done on this issue. He supported Canada's suggestion to derestrict the CTE's agendas and make working documents available promptly. If Members were to effectively coordinate at the national level, this would necessarily involve the sharing of documents to take into account the views of civil society.

20. The representative of Nigeria supported Canada's proposal to pursue a more liberal policy with respect to derestricting Secretariat documentation as early as possible.

21. The representative of Singapore, on behalf of ASEAN, asked whether the NGO Symposium would conflict with the General Council's Decision on relations with NGOs. Any derestriction of CTE documents should follow WTO procedures. The *Trade and Environment Bulletin* was useful in understanding CTE discussions. Although recognizing the circumstances surrounding WT/CTE/W/67, it should be discussed prior to being derestricting to give a balanced picture of Members' views.

22. The representative of India said to convey the right message to civil society, the Trade and Environment Division and the Information Division should coordinate to involve the media in the NGO Symposium. MEA Secretariats should not be excluded from participating in CTE meetings. The CTE's agenda would not be of use for civil society without the accompanying documentation. As derestriction was covered in the 1996 CTE Report, further innovations were not necessary. India had a systemic approach to derestriction of WTO documentation whereby WT/CTE/W/67 should be derestricted along with the report of the meeting at which it was discussed.

23. The representative of Norway said Canada had raised some important issues with respect to ensuring that civil society was kept informed of the CTE's work, which would enhance the discussion at the national level. Canada's proposal was in accordance with the General Council's procedures on derestriction. CTE agendas could be made available to the public in some form.

24. The representative of Australia said the Secretariat should be given a free hand in organizing the NGO Symposium, which should involve the full spectrum of civil society. Fewer MEA Secretariats should be invited to speak, but this would not preclude a full range of MEAs participating. After having had a general review of the issues it was now appropriate to move to indepth discussions. This approach should be reflected in the Symposium and in the CTE's discussions next year. In order for those discussions and for Members' input to the CTE to be most useful, NGOs should have access to and knowledge of what was being discussed. Australia supported Canada's proposal to derestrict the CTE's agenda to increase NGOs awareness of the issues under discussion and contribute to the formulation of Members' positions at the national level. As early derestriction of Secretariat documents would encourage the exchange between NGOs and the CTE, WT/CTE/W/67 should be derestricted.

25. The representative of Brazil welcomed input from civil society in the CTE's work. Regarding the derestriction of CTE documents, particularly those which had not yet been discussed in the CTE, as there were General Council procedures for derestriction of WTO documents, it would not be advisable if *ad hoc* procedures were adopted in different WTO Bodies. Given the governmental status of the WTO, consulting with civil society could be undertaken at the national level according to national procedures. Brazil supported the Secretariat's initiative to hold an NGO Symposium in March 1998, which constituted an exercise of relevance to interact with civil society.

26. The representative of Poland said transparency of CTE work should be fostered through NGO and MEA seminars around the time of CTE meetings. WTO procedures on derestriction should be followed. It was not useful for CTE agendas to be derestricted without the accompanying documentation.

27. The representative of Argentina said the NGO Symposium should be organized by the Secretariat to offer an opportunity for civil society to express its views on CTE work; Members could also express their views and obtain the views of NGOs. It would be useful if documents were derestricted to give a complete picture of CTE work. He supported Australia's proposal to derestrict WT/CTE/W/67, which tackled a complex subject that the CTE had only briefly dealt with this year. Derestricting this document was an exceptional case in order to provide balance to the already derestricted Secretariat documentation prepared this year on other Items.

28. The representative of Japan said the NGO Symposium in May 1997 had been useful and should be repeated. Although the organization of symposia would be left to the Secretariat, Members would benefit from more time to interact with NGOs in future symposia. It was important to learn from the valuable input of NGOs who had been working on issues related to trade and environment for many years. Relevant MEA Secretariats should be invited to each CTE meeting to increase the information exchange between the CTE and MEAs. Japan supported overall Canada's proposals for derestriction. Transparency of CTE activities should be enhanced. Derestricting CTE documents should also be considered on a case-by-case basis, keeping in mind the General Council procedures.

29. The representative of the European Communities said Article V.2 of the WTO Agreement gave the General Council the mandate to "make appropriate arrangements for the consultation and cooperation with NGOs concerned with matters related to those of the WTO". On 18 July 1996, the General Council had approved Decisions on guidelines for the relations of WTO Bodies with NGOs, relations with International Governmental Organizations (IGOs), and derestriction of WTO documentation. These Decisions had recognized the role that international organizations could play in facilitating the flow of WTO information and had set out steps Members and the Secretariat should take to increase transparency. The NGO Decision noted that NGOs could contribute to the richness and accuracy of public debate on WTO issues and had called for greater transparency, in particular the timely derestriction of documents. The Decision had also called for the Secretariat to increase interaction with NGOs. In accordance with the General Council Decisions and CTE Members' call for cooperation with international organizations, the CTE had furthered cooperation with organizations relevant to its work. IGOs with a specific interest in the CTE's work had participated as observers on an *ad hoc* basis. Following the General Council Decision, fourteen IGOs had been granted full observer status in the CTE. Over seventy NGOs had participated in the May 1997 Symposium. At the CTE's September meeting, Secretariats of MEAs and financial mechanisms had participated in an information session.

30. The NGO Symposium in May 1997 had been a useful exercise at which constructive and valuable information exchanges had taken place. The information session with MEAs and financial mechanisms in September had also provided an opportunity to increase a mutual understanding between the Secretariats of MEAs and the WTO; provided MEA Secretariats with information about issues of possible relevance to their development; and provided the CTE with a chance to compare MEA approaches to trade issues. As the EC had always called for greater cooperation between the CTE and NGOs and IGOs, it welcomed the steps taken by the Secretariat and the ongoing process of exchanging information and views. NGOs and IGOs could be sources of expertise and publicity which would be of benefit to the CTE's work. The NGO Symposium the Secretariat was organizing in March 1998 should have a broad agenda and include

representatives from associations for environmental services and technologies and agriculture. Bearing in mind the important contribution which NGOs could make to the CTE's discussions, the EC underlined the importance of an adequate level of transparency to facilitate their input. The 1996 CTE Report had stressed the role that Members should play to increase transparency *vis-à-vis* NGOs and had urged Members to derestrict the documents produced in the first two years of the CTE's work and promptly derestrict future documents.

31. As transparency and information flow were best facilitated at the national level, the CTE's encouragement for coordination between national trade experts, NGOs and IGOs and prompt derestriction of CTE documents would benefit all parties. The EC requested the three non-papers which it had submitted to the CTE in 1996 on Items 1 and 5, 3(b) and 6 be derestricted. The CTE should reflect on ways to enhance transparency and accessibility of the CTE. The EC supported Canada's suggestion that Members should be encouraged to derestrict written submission promptly. Early derestriction of WT/CTE/W/67 should be considered after Members had discussed it indepth and included an examination of environmental services in the sectoral analysis under Item 6.

32. The representative of Hungary supported the involvement of civil society in the CTE and the prompt derestriction of Secretariat documents on a case-by-case basis, including WT/CTE/W/67.

33. The representative of Egypt supported Canada's suggestion to enhance and encourage the participation of civil society in NGO symposia. Documents should be considered for derestriction after having been discussed in the CTE and in view of the General Council procedures.

34. The representative of the United States said the arguments put forward indicated it was important to maintain the intergovernmental character of the WTO. Although Members were encouraged to coordinate with civil society at the national level, procedures were being suggested which could interfere with Members' ability to coordinate domestically. Some countries had official advisory committees through which to coordinate. More work in this regard was needed. Whilst some Members had argued that documents should be derestricted along with the report of the meeting at which they were discussed, it would be better to derestrict documents, then derestrict the report of the meeting at which they were discussed so Members could have a fuller domestic discussion. The US appreciated the EC's derestriction of its papers. As the CTE's 1996 Report had encouraged Members that had submitted papers to agree to their derestriction, the Secretariat consult with those Members to ensure transparency.

35. The representative of Australia said, although it was desirable to derestrict documents after they had been discussed, the circumstance relating to the finalization of WT/CTE/67 was an argument for its prompt derestriction. This was a Secretariat background document to assist the discussions and its status was similar to that of submissions by Members which could be requested be derestricted.

36. The representative of Canada supported the derestriction of WT/CTE/W/67 and asked the Chairman to include the issue of derestricting the CTE's agendas in his consultations.

37. The representative of Korea said the NGO Symposium with civil society had enhanced a mutual understanding of the issues. If this arrangement were regularized, a more focused approach was necessary. In organizing future symposia, the Secretariat could use the CTE's thematic approach. Secretariat working documents should be derestricted along with the report of the meeting at which they had been discussed to give a balanced view of the proceedings.

38. The representative of Mexico said she would not comment on the NGO Symposium as this would be organized under the auspices of the General Council, not the CTE. Mexico said derestriction in the WTO to date had been carried out in a horizontal manner, not on an *ad hoc* basis. However, derestriction of certain documents could be considered under special circumstances. WT/CTE/W/67 deserved special treatment as this document was to have been completed in early 1997. Mexico supported its derestriction to have a balance in the documentation available for the NGO Symposium.

39. The representative of Switzerland said considerable progress had been made by the CTE to enhance transparency of its work, such as contained in the *Trade and Environment Bulletin*. The information session with MEA Secretariats and the NGO Symposium had allowed a valuable exchange of views. Switzerland was looking forward to the NGO Symposium in March 1998. Concerning the derestriction of WT/CTE/W/67, the Secretariat had recalled that the procedures set out by the General Council for derestriction allowed for the CTE to advance derestriction on an *ad hoc* basis. However, it would not be advisable to have special procedures for derestricting documents in the CTE.

40. The representative of Morocco said the organization of symposia and the derestriction of WTO documents should be taken up by the General Council. Morocco supported the derestriction of WT/CTE/W/67 along with the report of the meeting at which it was discussed.

41. The Chairman said he would consult with Members on the proposals which had been put forward on derestriction.

Other Items

Items 1 & 5The relationship between the provisions of the multilateral trading system and trade measures for environmental purposes, including those pursuant to multilateral environmental agreements; and

The relationship between the dispute settlement mechanisms in the multilateral trading system and those found in MEAs

42. The representative of Brazil said her delegation shared the opinion of those who envisioned multilateral negotiations as the best road to follow to address global environmental problems. It was within MEAs that solutions should be sought. MEAs were composed of a several provisions, some of which were market-oriented and were called "trade measures"; others were cooperative measures providing the means for an MEA's full implementation. These were referred to as "positive measures". To focus only on trade measures would distort the picture and only partially address the issue of the relationship between trade and environment. Trade measures were part of a set of rules and belonged to a certain line of reasoning; they may not be fully understood if singled out of context. Brazil agreed with the argument raised by some Members that to understand the nature of trade measures, one may need not only to balance them against positive measures, but also to raise questions about the necessity, effectiveness and proportionality of such trade measures.

43. On the WTO's legal scope, Brazil supported the view that Article XX and the DSU were able to deal with trade-related environmental disputes; WT/CTE/W/53 gave examples of this capability. So far no panel had been formed because of a dispute over a trade measure multilaterally-agreed in an MEA and all the disputes brought before the DSB had resulted from unilateral actions allegedly aimed at environmental concerns. If a trade measure were necessary to address environmental problems, it should be multilaterally-agreed; if multilaterally-agreed, the trade measure in question would hardly be challenged before the WTO. For example, no Party or non-party in the case of MEAs that had agreed to impose trade bans on some goods, wastes or chemical substances had yet questioned their necessity. Any trade problems resulting from these measures were being worked out within the legal scope of the relevant MEA. Unless a specific trade-related environmental measure were a disguised trade restriction, it should find multilateral support. If a multilateral consensus were not achieved, the CTE would be faced with an exceptional case, and exceptions were to be dealt with under Article XX. These comments responded to questions raised by some Members at the September meeting. Brazil expressed its appreciation for UNCTAD's "Expert Meeting on Positive Measures to Promote Sustainable Development, particularly in meeting the objectives of MEAs". Brazil felt this meeting had been profitable and welcomed the follow-up. The CTE would gain from exploring complementarities of work within the UN framework.

Item 6 The effect of environmental measures on market access, especially in relation to developing countries, in particular to the least developed among them, and environmental benefits of removing trade restrictions and distortions

44. The representative of Nigeria said WT/CTE/W/67 included a balanced survey of the literature and presentation of different perspectives. The sector approach pursued was comprehensive, listing the trade distortions which were prevalent in each sector and the environmental benefits associated with their removal. The CTE's 1996 Report said trade liberalization was not the primary cause of environmental degradation; trade measures were not the first best option to address environmental problems. The concepts of market failures and environmental externalities had been raised in the CTE when looking at the manner in which environmental benefits could be incorporated. Paragraph 8 noted the absence of comprehensive valuation techniques to measure environmental benefits, an area to which the CTE should devote more time. Evaluation techniques involved value judgements and were based on assumptions which should be examined. In this respect, WT/CTE/W/72 had initiated work by compiling literature on environmental valuation. The general conclusions which were made in paragraph 12 should emphasize even more the fundamental importance of poverty reduction in addressing environmental concerns. Clarification could be made as to whether the reference to poverty alleviation through trade expansion included enhancing market access.

45. The representative of Australia said WT/CTE/W/67 provided a basis for further CTE work on the environmental effects of trade restrictions and distortions and the potential benefits of reforming these distortions. The analysis suggested that trade liberalization presented both challenges and opportunities for improved environmental protection. In countries where subsidies and market access barriers had stimulated high levels of resource use and wasteful production processes, reform of these trade distorting measures offered opportunities for environmental improvement. However, it should not be assumed that environmental improvement would flow automatically from trade liberalization. Trade policy reform could help correct policy failures that had complicated the achievement of good environmental management. Governments should ensure that appropriate policies were in place to take advantage of the opportunities presented by trade liberalization. The opportunities for improved environmental management created by trade liberalization would often be associated with shifts in the location of production. It would be counterproductive if governments tried to prevent these shifts in production, including by using environment concerns to justify maintaining high levels of support.

46. Many studies on agricultural trade suggested that support directly linked to levels of input use or production may have large effects on the amount of resources used and the pollution and waste generated. The evidence suggested that most support was still conditional either on input use or output levels, although there was growing acceptance of the need to reform these types of support. Alternative policies, however, may still have the effect of maintaining current high production levels. Although these policies may be justified on the basis that they would be more environmentally-friendly than support directly linked to input use or output levels, if they kept in place production structures involving unnecessarily high and inefficient resource use and waste generation, then they still could have adverse environmental effects. By blocking proper adjustment of production structures, these policies may provide disincentives to the adoption of technologies that could reduce resource use or employ material and energy inputs more efficiently. In particular, while some subsidies may be justified on the basis that they helped protect environmental benefits during the transition to a more liberalized trading environment, analysis of these claims was needed. Other types of appropriately targeted and designed environmental policies may be more effective than subsidies in securing environmental benefits. As WT/CTE/W/67 set out in relation to the fisheries sector, much of the impact of subsidies would depend on how they were administered and monitored. The paper noted the evidence that in some cases subsidies for vessel buy-backs may have succeeded in retiring old boats only to have these replaced by new ones.

47. In addition to presenting opportunities, trade liberalization also presented challenges to the achievement of effective environmental outcomes. In the agriculture sector, trade liberalization should promote shifts in production to countries where agriculture tended to rely less heavily on farm chemicals and where livestock stocking densities tended to be lower. Expanded production in these countries could

pose new environmental challenges and highlight the importance of good policy frameworks to ensure environmentally-sensitive lands and areas of biodiversity value were protected. Similarly, reductions in tariff escalation and other access barriers could facilitate shifts in the location of processing and value-adding activities in a range of sectors. While offering important opportunities to diversify economic structures and improve export returns, such shifts in production could also introduce new environmental challenges in the form of production activities that may be chemical intensive and generate waste streams. Adequate policy frameworks and improved infrastructure to cater to new production processes and waste streams would be important factors in ensuring these environmental challenges were addressed. More open trading regimes in general may also have a significant role in facilitating the transfer and adoption of technologies that would both minimise waste generation and improve overall waste management. Information presented in WT/CTE/W/67 pointed to the fact that significant subsidies were provided in the agriculture and fisheries sectors and in relation to energy which may have major environmental impacts. These subsidies provided a focus for the CTE's work under Item 6. Such subsidies may have a range of environmental effects through the encouragement of higher energy use and energy-inefficient production methods, overcapacity in fishing fleets, excessive use of chemical and mechanical inputs and irrigation water in agricultural practices, as well as over-intensive cropping and livestock systems. The potential environmental effects could be significant, as the agriculture, fisheries and energy sectors, and sectors using energy inputs, used large volumes of resources and generated large amounts of waste and pollution.

48. Further work was necessary to improve an understanding of the relationship between subsidization, production, trade and environmental impacts. WT/CTE/W/67 referred to the environmental impacts of mining and metals production, and the potential contribution of subsidy removal to improved environmental outcomes. The paper suggested that a case-by-case assessment of this potential was required and, given the general complexity of these relationships, this approach would be required for all sectors. The linkage between subsidy reduction and environmental benefit was greater in some sectors than in others. In addition to subsidy issues, tariff escalation, high tariffs and other access barriers deserved consideration. WT/CTE/W/67 highlighted that high tariffs and tariff escalation may continue to be a significant issue in several sectors, including those which raised environmental issues or could be significant in helping commodity-exporters diversify their economies.

49. An issue which may warrant more detailed examination was the interaction between the structure of economic activity, trade liberalization and sustainable development. Improvements in market access opportunities may have a role to play in helping countries promote economic structures that were more conducive to sustainable development. A key issue was the need to promote patterns of economic growth that would effectively contribute to poverty reduction given the close relationship between poverty and environmental degradation in many countries. Patterns of economic growth should be encouraged that would deliver environmental benefits. Although these were issues much broader than trade reform, there was a role for the CTE to examine the scope for trade reform to facilitate changes in the structure of economic activity central to the achievement of sustainable development.

50. The representative of Japan welcomed the analysis contained in WT/CTE/W/67, which was a valuable contribution to work on Item 6. Japan had some general remarks on the document; more detailed comments would be submitted after it had been fully examined. Regarding the introduction, Japan did not have any intention to object to a sectoral discussion of the environmental benefits of removing trade restrictions and distortions to pursue the possibility of "win-win" situations. However, a comprehensive analysis should be undertaken on both the positive and negative environmental effects of trade liberalization. The sectoral analysis in WT/CTE/W/67 was divided in three sections; this structure could fail to deal sufficiently with the possible negative environmental effects of removing trade restrictions or trade liberalization. In this respect, another section should be added in each sector which dealt with the negative environmental effects. There was a common understanding in the CTE that efficient resource allocation would be enhanced if market mechanisms adequately valued environmental externalities. There were positive and negative environmental externalities, such as in cases where agricultural activities supported biodiversity and the conservation of land and landscape. These positive environmental externalities should also be clearly mentioned in the document (especially in paragraph 4) and an examination should be carried

out on methods of capturing environmental externalities. Paragraph 12 should also refer to the negative environmental effects of removing trade restrictions or trade liberalization.

51. In the agricultural section, references related to environmental benefits of trade liberalization were not balanced by references to negative effects. An OECD report, *The Environmental Effects of Reforming Agricultural Policies*, dealt with positive environmental externalities, such as biodiversity, scenic landscape resulting from supporting agricultural activities and suggested that reforming agricultural policies might have negative environmental effects. The positive and negative effects in this report should be referred to in a balanced manner. Analysis of negative environmental effects of shifting production resulting from trade liberalization was also necessary in the document. Empirical studies had not shown clearly if positive effects surpassed negative effects, and therefore balanced references should be made. It was inappropriate to include in paragraphs 27-30 subsidies or regulations including those notified under WTO Agreements in the section on "trade restrictions and distortions". The forestry section should consider social, economic and cultural factors which were related to the issues as had been identified in *Agenda 21*. A comprehensive analysis of all these factors was necessary for the discussion. Paragraph 12 of the document stated and if adverse production and consumption externalities were adequately integrated into decisionmaking processes, trade and environmental objectives were mutually supportive. Trade liberalization might have negative environmental effects as the assumption could not fully be met. In quoting the analysis by the OECD, ITTO, and IPF, the document should cover the negative effects and conditions under which positive effects might arise.

52. The representative of Argentina said WT/CTE/W/67 dealt with a complex subject in a balanced manner. Trade liberalization was not a guarantee of greater environmental protection, particularly if due to trade distortive policies the price of traded goods did not reflect the real cost of their production. Before considering the possibility of adding new instruments, such as subsidies and trade restrictions, it was essential to eliminate existing measures which distorted prices. As WT/CTE/W/67 noted, prices determined the decisions of investors, producers and consumers. For commodities such distortions had particularly severe environmental effects since they were natural resource intensive products. Any distortion in their price was directly transmitted throughout the rest of the production process. Moreover, as commodities had a simpler cost structure than processed products, an incorrect valuation of the exploited natural resource had more serious consequences than in the case of processed products. If the relative scarcity of factors of production was not clear in the price structure, it was difficult to determine a sustainable rate of resource use.

53. Existing trade restrictions and distortions that most affected the international price of natural resources should be identified and work should focus on their elimination; this would yield environmental benefits. Production-related subsidies distorted international prices. In this regard, Principle 16 of *Agenda 21* noted that in order to be able to implement sustainable production policies it was necessary for prices to reflect full production costs. The internalization of environmental costs in the cost of production was important to have a sense of direction for the discussion and in order to implement environmental policies. Nevertheless, environmental costs could not be internalized on the basis of prices which were distorted by export subsidies. The first step to internalize environmental costs rested with the countries causing the market distortions and not adequately reflecting private production costs. For example, production-related subsidies generated the following negative environmental effects: (a) local effects through the promotion of intensive production practices which exceeded the sustainable resource absorption and reproduction capacity; and (b) general effects on producers which did not benefit from subsidies, but were affected by distorted prices and, as a result, were forced either to overexploit their own natural resources to gain a short term return or to leave the market.

54. The agricultural section in WT/CTE/W/67 was balanced. However, paragraph 42 referred to the fact that a possible effect of agricultural liberalization in developing countries would be a shift from food to export crops. Specialization in export crops was related to distorted incentives which went beyond agricultural trade. To gain foreign currency to fulfil their international commitments, many developing countries had oriented production towards exports to international markets. Even if excessive specialization could have negative environmental effects, it was contradictory to identify a causal link between

excessive specialization, the difference between domestic and international agricultural prices and agricultural trade liberalization. Trade liberalization in general aimed to bring domestic prices in line with international prices. As agricultural trade was liberalized, the gap between domestic and international prices will be reduced and therefore the eventual specialization of producers will increasingly affect the competitive benefits of certain producers and be based on natural and competitive advantages. The forestry section had not given sufficient attention to the link between rural poverty and deforestation. Consumption of wood in developing countries was mainly linked to the use of wood for fuel. The 1997 FAO *State of the World Forests* cited fuelwood as the main source of domestic energy for two fifths of the world, was growing by 1.2 per cent per year. About ninety per cent of the world's fuelwood was produced and used in developing countries, particularly African countries. The European Forest Institute estimated that fuelwood demand was inversely proportional to income growth. Rural poverty entailed that forests were used to produce wood for basic needs.

55. The representative of Norway said WT/CTE/W/67 established a solid base for further discussions and should be revised according to Members' comments. The conclusion that environmental benefits would result from trade liberalization was based on specific preconditions, such as that an efficient national environmental policy was in place, and that market prices captured the effects of environmentally-damaging activities; such preconditions were not always fulfilled. Thus, although there were no automatic environmental benefits of trade liberalization, it could yield environmental benefits. This was an observation, and it was up to Members to take steps so that environmental benefits materialized. Norway noted that WT/CTE/W/67 included a section on environmental benefits for each sector, which discussed negative and positive environmental effects of trade liberalization. More nuanced language in paragraph 3 of WT/CTE/W/67 was necessary as to whether trade instruments were the first-best policy for addressing environmental problems. In some cases, trade measures were required to achieve an environmental objective, normally as a part of a package of instruments. Beyond this, trade measures were rarely the primary or best instrument for achieving environmental objectives. The statement in paragraph 6 that there was wide agreement concerning the close linkage between poverty and environmental degradation was too general. Debate since the early 1990s had shown that environmental degradation had many causes, in some cases poverty was an important factor, in others unsustainable patterns of consumption and production were the underlying reason. Norway endorsed the basic premise in paragraph 12 that to make trade and environmental objectives mutually supportive, adverse externalities must be integrated into decision making processes. Although environmental benefits would ensue from agricultural trade liberalization, the possible negative effects and the multifunctional role of agriculture should be noted as set out in paragraph 40. It should also be recognized that there were country-specific and socio-economic conditions as set out in the 1996 CTE Report. Norway would provide written comments on the agricultural section reflecting positive and negative environmental effects of agriculture trade reform.

56. The energy section was balanced, describing various environmental effects of energy production and consumption, and the restrictions and distortions that existed in this sector, such as subsidies which led to high levels of pollution. Existing government interventions in the energy sector, such as subsidies, taxes and other non-price measures, had led to a composition and level of energy consumption that was far from optimal from an environmental or economic point of view. Whilst studies had shown that removing or reducing energy subsidies, or restructuring existing taxes on fossil fuel energy carriers resulted in economic and environmental gains, some properly designed subsidies could contribute to sustainable development. In addition to the issues raised in the document, Norway emphasized the need for electricity market reform at the domestic and international level; there was a trend to introduce competition in domestic and regional electricity markets, an issue which was under discussion in UN fora. The Nordic countries had developed an integrated electricity market, which had economic and environmental benefits for the efficient use of resources and investments; in order to achieve these benefits, environmental policies had been adjusted.

57. Removing distortions in the energy sector must also include the coal industry, as coal was the more polluting energy source. This was a complicated issue and many countries, especially developing countries, were dependent on coal as an energy source and coal mining was a source of employment. Thus, introducing price reforms and other environmentally and economically sound measures in the energy sector must be seen in a longer term perspective. Until present, government interventions tended to favour the use coal at the expense of other energy sources. In the OECD, oil carried a CO₂ tax of about US\$60 per

tonne, whereas coal taxes were non-existent. Coal production was also subsidised in some OECD countries. It could be argued that the existing tax structure on energy in the OECD was not fair from a trade point of view as energy carriers, to a large extent, were substitutable. Subsidy removal in itself would not necessarily lead to environmental improvements. If gas subsidies were removed, other things being equal, the consequence could be an increased use of coal or oil. Thus, price reforms should take into account environmental externalities of competing energy sources and subsidy removal and tax restructuring should go together.

58. Reference was made to the most important factor to achieve sustainable fisheries, namely the application of national and international resource management regulations, in WT/CTE/W/67. Resource management was, however, outside the WTO's scope. A distinction should be made between overexploited and efficiently managed stocks when discussing the environmental impact of trade liberalization. This distinction was made in OECD studies which tended to conclude that it was likely that trade liberalization would only have a small impact in the fisheries sector, and that environmental effects were more likely to result from national or international resource management strategies. Although WT/CTE/W/67 referred to traditional instruments such as tariff and non-tariff barriers (quotas, embargoes, license requirements, and sanitary standards) affecting trade in fish products, their possible environmental impact as a result of trade liberalization had not been analyzed. Subsidies were dealt with more thoroughly. Some subsidies also had the potential to contribute to sustainable fisheries. The description of the world's fish stocks in the document was not based on current data and should take into account that the development of certain stocks underwent cyclical movements; some depleted stocks had recovered quickly. To establish whether there were generally any environmental benefits from removing trade restrictions and distortions, it would be necessary to examine the positive and negative effects, as had been done appropriately in WT/CTE/W/67.

59. The representative of the Czech Republic appreciated WT/CTE/W/67, especially the energy section. Energy was a major polluting factor in the Czech Republic. Despite a decline in energy consumption due to the reduction in production and industry restructuring after 1989, the demand for energy and electricity was increasing. The Czech energy market had been affected by various forms of government intervention. As the Czech Republic had a high energy consumption ratio per unit of production, it would have to increase the efficiency of energy use, introduce new energy-saving technologies, and promote the use of renewable energies. The Czech Ministry of Industry and Trade was working on a new energy policy with the aim of introducing new environmentally-friendly energy taxes after the identification and removal of distorting energy subsidies. With the help of Danish experts, the Czech Republic would also evaluate the possibility of introducing ecological tax reform. To enter the EU, the Czech Republic would have to comply with requirements in both energy and agriculture. WT/CTE/W/67 and OECD studies would help the Czechs to determine priorities in environmental protection and to address problems in the energy, chemical and agricultural sectors.

60. The representative of Korea said WT/CTE/W/67 represented a valuable analysis of the issues. However, both positive and negative environmental effects of trade liberalization should be dealt with in a balanced manner. WT/CTE/W/67 did not provide sufficient empirical evidence for illustrating the full environmental impact of trade liberalization. As the CTE was engaged in an educational process, the analysis should be backed up by concrete examples as well as theoretically. Given the dearth of information on the environmental effects of trade liberalization, difficulties in compiling relevant information were understandable. Members' contributions of country-specific experiences would help fill the gaps. The section on agriculture in WT/CTE/W/67 cited Anderson and Tyers' scenario under which declining agricultural production in densely populated countries would reduce environmental degradation. However, Korea had a different view on this point, which did not come from analysis or theory, but from its national experience. Korea had implemented a "Green Belt" policy which designated certain farmland and forestry zones and prohibited their development. Whenever there was an economic slow-down, pressure was exerted to lift the ban on development in Green Belt areas. Records showed that farmland and forest zones formerly protected by the Green Belt Law had been converted into industrial zones or residential areas. Drawing from this experience, it may be concluded that agricultural decline resulting from agricultural trade liberalization in small, densely populated countries such as Korea may increase the chance

that farmlands would be converted into less environmentally-friendly areas. A recent study by the Korea Institute indicated that rice paddies in Asia played an important role in flood control and soil conservation by holding rainwater during the summer when most of the heavy rains occurred. Without rice paddies, additional dams would have to be built to prevent flooding. These dams had a negative impact on the ecosystem, climate change, and destroyed wildlife habitats.

61. In recent decades, increasing numbers of farmers deserting their farmlands had contributed to the rapid pace of urbanization in Korea; urbanization, particularly in developing countries, had brought about socio-economic and environmental problems. At the beginning of the next century, more than 60 per cent of mega-cities with a population of at least 10 million inhabitants would be located in developing countries. Rapid urbanization without sufficient infrastructures for waste management, water resources and housing was causing environmental distress. The May 1996 Habitat Conference, which aimed to improve the environment for city dwellers, had addressed ways to mitigate the worsening urban environment. A holistic approach should be taken to address the environmental problems in order to act in all parts of society. If agricultural trade liberalization contributed to the acceleration of urbanization and aggravated environmental degradation in urban areas, the question was what were the environmental benefits of liberalization. Effects of agricultural trade liberalization should be seen from a wider perspective, taking into account far-reaching implications, and focusing on the impact on sustainable development in general.

62. The representative of Brazil said WT/CTE/W/67 was well balanced and promoted a better understanding of the role of market instruments in different sectors. The sectorial analysis contained important information for the CTE's ongoing work. The task of identifying the sectorial effects of trade liberalization was complex and establishing the relationship between these effects and the related environmental benefits was even more complex. There was one unmistakable conclusion to be drawn from this paper: for the most part, the removal of trade restrictions and distortions led to environmental benefits. These effects were not always immediate or direct, and may be dependant on national or multinational regulations. Nevertheless, trade liberalization caused a chain of results which would eventually lead to higher levels of environmental protection. By increasing the exchanges of goods, trade liberalization stimulated production, generated productivity, increased income, accelerated technological changes and opened new and profitable possibilities for the generation, acquisition and application of environmentally sound technologies. Although the removal of trade restrictions was not in itself a guarantee of improved environmental quality, from the point of view of growing economies, trade liberalization was the pre-condition to beginning the process of sustainable development, particularly considering the globalization of the world economy. The "win-win" situation Brazil was searching for in the CTE could be achieved in a discussion of the relationship between trade and environment, but the economic elements had necessarily to precede the institutional framework.

63. According to WT/CTE/W/67, the positive relationship between trade liberalization and the environment may enhance competition and generate more efficient factor-use and consumption patterns; reduce poverty by expanding trade; encourage sustainable rate of natural resource exploitation; and increase the availability of environmental-related goods and services. According to OECD studies, subsidies and price support initiatives in the agriculture sector had provided farmers with a disincentive to rotate crops. By concentrating their cultivations in the subsidized crop, farmers practised monoculture, one of the main causes of soil erosion and the overuse of fertilizers and pesticides. If this line of reasoning were inverted and the issue examined from the perspective of the farmer who did not receive the subsidy, the result was equally negative to the environment and to the economy as a whole. Given distorted international prices generated by subsidies, farmers had few alternatives; either overexploit the resources to increase immediate earnings or leave the market. In either case, the results may be the growth of rural poverty (and its consequences for deforestation), a decrease in environmental protection, the perpetuation of poverty, and an increase in rural and urban marginality. Less subsidies would probably generate higher prices for agriculture outputs in developing countries. As incomes increased, farmers would invest in soil irrigation and conservation. Some Members had argued that without "flanking support" liberalization might induce detrimental environmental effects in the agriculture sector, such as land abandonment. Whilst this may be correct, it was not the case in developing countries where agriculture was not explored to its potential as prices were distorted and production was not adequately rewarded. Some Members had also argued that

well-designed environmental subsidies may have an important role to play in promoting sustainable agriculture and forestry. Although from a national or regional point of view this statement may be correct, the negative effects of certain policies in other countries, such as their implications on market access opportunities, could not be disregarded.

64. In the energy sector, scientists and economists had pointed out that the removal of subsidies may bring energy prices in line with marginal benefits. There would be an incentive for the development of clean technologies and for reliance on renewable energy sources. In this respect, the results of the Climate Change Convention's Kyoto Conference should be awaited in order to have a better idea of the willingness of some countries to contribute to solving environmental problems. In this respect, Brazil welcomed an update of the results of Kyoto. It was argued that the removal of subsidies in the fisheries sector could lead to a contraction of capital, a reduction of overfishing by limiting overcapacity, a decrease in the participation of inefficient producers, and the phasing-out of old and environmentally-damaging equipment. Subsidies removal would then stimulate the use of environmentally-sustainable management systems. This reasoning could be applied to all sectors of an economy, especially in developing countries. With a more balanced competitive atmosphere, structural transformations could be achieved, diversification of exports could be attained and a shift to higher value-added goods facilitated. Environment benefits may thus ensue from the growth effect of trade liberalization. Tariff escalation was another distortive practice which negatively affected sectors such as fisheries, forestry, clothing and leather by inducing inefficiencies in importing and exporting countries. By distorting prices, tariff escalation had a double negative environmental effect: it exported the environmental problems to less-developed countries and helped to perpetuate inefficiency by impeding investments in new technologies. This problem could be identified in the leather and forestry sectors, where tariffs escalated from raw materials to finished products. In the fishery sector, inefficiencies were linked to the volume of processed fish *vis-à-vis* the exploitation of unprocessed fish.

65. Environmental externalities were a global problem which could not be exported to other regions as an excuse to reach a solution in one country. The solution to environmental problems had to be balanced against the present and future and viewed beyond regional interests. If Members were searching for a "win-win" relationship between trade and environment, and not using the environment as an excuse for disguised trade restrictions, that special balance would have to be found. Brazil would coordinate at the national level to promote a discussion of WT/CTE/W/67.

66. The representative of the European Communities, noting the importance of Item 6, said further work should consolidate the CTE's role as a forum for constructive discussions. The EC welcomed the detailed analysis and structure of WT/CTE/W/67, and would give substantive comments after having examined it. It would also be necessary to include an analysis of trade in environmental services for discussion under either Item 6 or 9. For its work to be credible and intellectually consistent, the CTE should take into account the positive and negative environmental effects of trade liberalization.

67. The representative of Switzerland said WT/CTE/W/67 was a solid analysis of one of the elements under Item 6. The elimination of trade distortions did not necessarily result in automatic environmental benefits. If environmental benefits were to ensue it was essential for domestic environmental protection policies to be implemented at the same time. The objective of such policies should be the internalization of environmental costs. The importance of the environmental benefits which could result from eliminating trade distortions was difficult to quantify. In certain sectors, such as coal, the elimination of certain forms of trade restrictions could have obvious environmental benefits, but in other sectors, the long term consequences in the changes in certain practices on the environment were difficult to determine. All trade restrictive measures did not necessarily have negative environmental effects. Depending on their objectives and the manner in which they were implemented, certain forms of support could have environmental benefits. Switzerland would return to this document at a future meeting.

68. The representative of Malaysia, on behalf of ASEAN, said WT/CTE/W/67 was useful a useful document which ASEAN would comment on at a future meeting. Export controls on unprocessed logs, referred to in paragraphs 119 and 129, were levied to meet developmental and sustainable developmental objectives. These taxes had helped to reduce the rate of deforestation. Eliminating tariff escalation on value-added forestry products maintained by several Members would enhance sustainable forest

management along with other conservation measures in developing countries. Paragraph 121 referred to certification of sustainable forest management and labelling of forest products which were complimentary to forest management policies. Certification and labelling were not complimentary to forest management policies, as referred to in paragraph 121, as what was important was the formulation and implementation of sound management policies, such as reforestation, silviculture and methods of harvesting. Labelling and/or certification were not a compulsory component of sound forest management. However, if the market determined that labelling or certification through the use of any scheme, not only the ISO series, became the prerequisite through market driven demand, it would then become an issue for discussion. Paragraph 122 referred to studies suggesting that the demand for certified or labelled forest products was small and concentrated in a narrow market segment. He sought clarification as to whether all developing countries were effectively involved in the formulation of ISO 14001. If not, these standards could not be considered to have fulfilled the TBT provisions, particularly Article 12. In analysing paragraph 124, poverty should not be excluded and the existence of shifting cultivators, both these aspects should be addressed if Members wanted to address the felling of trees for subsistence cropping or fuelwood. Technical and financial assistance was necessary in resolving this issue. Referring to paragraph 124, he said many studies had illustrated that oil palm and rubber plantations contributed positively to the environment.

69. The representative of Canada said WT/CTE/W/67 contributed to broadening the sectoral focus under Item 6. Canada would circulate the document at a national level to obtain input from industry and other interested parties. Canada proposed to examine the document sector-by-sector to facilitate a focused discussion. Canada would comment on the forestry sector, which was an example of a sector in which environmental issues had been confronted and creative policy responses developed.

70. The representative of India supported Canada's suggestion to have a structured sectoral discussion based on WT/CTE/W/67. Reference to poverty alleviation in paragraphs 6 and 12 was significant given the CTE's mandate to examine this issue from the perspective of sustainable development. Trade instruments were not the first-best policy for addressing environmental problems. In the agricultural section, India had doubts about applying the proposition in paragraph 37 as it was questionable whether population growth always declined as income rose. The size of farm holdings, especially for small farmers, was important in the context of discussions on paragraph 45. On the energy section, it was prudent to await the outcome of the Kyoto Conference of the Climate Change Convention before dealing with issues such as those covered in footnote 64. Although India would deal with the textiles and leather sections later, an important reference was the UNCTAD study on SMEs, cited in footnote 188. Attention should also be directed to fibres other than cotton, such as jute, wool, and silk. A more detailed discussion of synthetic fibres based on petroleum would be welcome. He said the CTE's mandate was clear that the analysis should examine environmental benefits.

71. The representative of the United States sought the Chairman's clarification concerning several suggestions to revise the document. At this stage, it was up to Members to provide input. Concerning WT/CTE/W/67, trade had an important role to play in achieving environmental objectives; at the same time, in the absence of environmental policies, the environmental benefits of trade liberalization would not be achieved. It was important to distinguish between income growth effects, which was a necessary but not sufficient condition for achieving environmental objectives, and direct effects through the process of trade liberalization, which would need to be examined by sector and product. Determining environmental impacts was a complex issue to examine, particularly as Members were not environmental experts. There had been a lot of analysis in the primary goods sector and a case had been made that distortions in this area interfered with environmental cost internalization and led to inefficiencies which acted at cross purposes to achieving environmental objectives. Assertions had been put forward by some Members that some of these distortions yielded environmental benefits. However, if the analysis were extended further to examine the effects these distortions had on third countries, the environmental effect may be negative. Moving up the product chain from primary products to manufactured goods, the analysis became more complicated, which should be reflected in the analysis. This was not to say that trade liberalization in the manufactured sector was any less important than that in the primary goods sector. The task was to examine whether sectoral trade liberalization could yield "win-win" benefits from an environmental perspective.

72. The Chairman said WT/CTE/W/67 was a background paper and not a document to be negotiated; the Secretariat did not have any intention at this stage to revise the document.

73. The representative of Egypt said WT/CTE/W/67 was a useful presentation of the issues. Although removing a trade restriction or distortion was an important pre-condition for improving environmental quality, its removal was not in itself a guarantee of improved environmental quality. Egypt emphasized the importance of the balance between environmental benefits of trade liberalization and the effects of the restrictions still in place which affected the ability of developing countries to make use of the benefits from trade liberalization. Further work should focus on the needs of small and medium size enterprises, the relation between poverty reduction and the achievement of environmental objectives, and transfer of environmentally-sound technology.

74. The representative of Mexico said WT/CTE/W/67 was a good basis for the CTE's discussion. It was premature to consider revising a document which Members were only beginning to analyze and which was not a negotiated document. As to an extension of its contents, the approach taken in the document was appropriate and was in keeping with the CTE's mandate under Item 6.

75. The representative of Cuba said WT/CTE/W/67 would enrich future discussion and would be analyzed by the Cuban Interagency Commission. The Spanish translation of the document should be made available as soon as possible.

76. The representative of Japan said, with regard to the CTE's mandate on Item 6, an analytical examination to determine the environmental benefits of the removal of trade restrictions and distortions should also deal with the negative effects in a balanced manner.

77. The representative of the United States commented on India's paper (WT/CTE/W/66), which proposed changes to the TRIPS Agreement based on concerns about possible loss of market access resulting from environmental standards requiring use of particular patented products established under MEAs or by national laws. Although admitting that such an event had never occurred, India argued that, absent the easy access and low prices it recommended, developing countries could not safeguard their existing market access. India recommended that developing countries' existing market access be preserved by limiting or eliminating the patent rights of inventors of patented technology and products important to the environment. The US was perplexed as to why India had suggested that the paper dealt with market access; India believed that if a WTO Member lost export opportunities because its products did not meet the standards in export markets, a notion of market access required that the exporting party be provided the technology to develop an alternative product to export. The US was at a loss as to how adding the words market access to a call for technology transfer made this a market access issue. India's proposals would increase competition for patented technology and products important to the environment, and result in stagnation in other markets.

78. India presumed a serious problem existed in relation to the global use and availability of patented environmentally-sound technologies and products (EST&Ps) due to the standards for patent protection in the TRIPS Agreement. Experience in countries with strong patent protection, including countries that had recently brought their laws up to the standards in the TRIPS Agreement had revealed no problem with the dissemination of patented technologies or patented products. Patent protection was one of many factors that influenced transborder transfers of patented technology and trade in patented goods. A country's foreign investment climate (including weak patent protection), import laws and regulations, marketing approval procedures, and market conditions affected directly the transfer of EST&Ps, whether patented or not; India failed to mention these factors in describing the hypothetical problem of lack of access to patented EST&Ps, discussing only its recommendations to weaken or nullify the standards for patent protection in the TRIPS Agreement.

79. Requiring the use of a particular EST or P, whether patented or not, in an MEA or in national law was unlikely and could be counterproductive as they would freeze environmental protection at the level of that technology or product and would eliminate any incentive to create improved EST&Ps. Performance-based environmental standards, particularly when coupled with strong patent protection, encouraged

competition in the development of technology and products that met or exceeded those standards and improved the variety of technologies and products. Competition ensured businesses, including in developing countries, had access on an equal footing to many products at reasonable prices.

80. India recommended that "flexibility" be added to the provisions of Article 31 regarding compulsory licensing, citing in particular Article 31(b) which required efforts be made to obtain authorization from the patentee on reasonable commercial terms and condition; 31(g) which required any compulsory license be terminated if and when the circumstances that led to its grant ceased; 31(h) which required a patentee be paid "adequate remuneration" for the license, taking into account the economic value of the authorization; and 31(l) which limited the grant of a dependent patent compulsory license to dependent patents claiming "an important technical advance of considerable economic significance" in relation to the invention claimed in the dominant patent, and limited assignment of the license. India described these provisions as "cumbersome" and asserted they "may prove hurdles in the quick and effective transfer" of EST&Ps. India sought, through the CTE, to nullify the requirements of these provisions of Article 31, thereby destroying the careful balance of patent rights and exceptions agreed in the Uruguay Round. Article 31 permitted countries to grant compulsory licenses conditioned on compliance with provisions consistent with honest commercial practice.

81. India recommended that, if this careful balance of patent rights and exceptions could not be altered as India proposed, the CTE should consider reducing patent terms protecting EST&Ps to "a much shorter term" to allow "free access" to them. India described this as a "win-win" situation that would safeguard the interest in generating EST&Ps, while allowing for their "wide dissemination". Reducing patent terms for certain kinds of inventions would result in a reduction of investment in research and development in that field because returns on investment would be greater in other fields. Reducing environment-related research and development would result in a corresponding reduction in EST&Ps.

82. India stated that, if neither of its recommendations were accepted, developing countries could simply revoke or cancel patents to enable their businesses to produce and use EST&Ps "as are essential to safeguard or improve the environment, at least under standards set by an MEA or by another country's national legislation, even if adherence to those standards were voluntary". India said the TRIPS Agreement did not prohibit revocation or cancellation of patents as long as a country tried compulsory licensing first, as specified in Article 5(A) of the Paris Convention for the Protection of Industrial Property, incorporated by reference in Article 2.1 of the TRIPS Agreement. Such an interpretation would nullify the obligations of Section 5 of Part II of the TRIPS Agreement, and would allow any country that found any granted patent or group of patents inconvenient to revoke or cancel patents. Article 5(A) of the Paris Convention authorized the grant of compulsory licenses, and forfeiture of a patent if compulsory licensing failed only to prevent abuse of exclusive rights. It did not authorize the grant of compulsory license by a government as an abuse of exclusive rights.

83. The TRIPS Agreement did not contain a provision on revocation of patents as none was necessary. A Member could revoke a patent only if the invention claimed was found not to meet the standards of patentability established in Article 27.1, i.e., that the invention was new, involved an inventive step, and was capable of industrial application. Even when a patent was revoked for failing to meet the standards of patentability, judicial review of this decision must be available (Article 32). The limitations on patent rights permissible under the TRIPS Agreement were set out in Articles 27.2 and 27.3, as well as Articles 30 and 31. India's proposals concerned only "copiable" patented EST&Ps. To ensure easy access and low prices for patented EST&Ps, India recommended adding to the TRIPS Agreement: "The owners of the EST&P shall sell these technologies and products at fair and most favourable terms and conditions, upon demand, to any interested party which has an obligation to adopt these under national law of another country or under international law". Other governments or international organizations were to subsidize businesses that suffered losses from this requirement. India's interpretation of "fair and most favourable" meant at below or better market rates, which was an interpretation India had tried to have included in several MEAs. India's chances of success were no greater in the CTE, particularly as India had yet to provide evidence of a true problem.

84. The representative of India said his delegation would appreciate receiving the text of the US statement. Discussion of WT/CTE/W/67 showed that many kinds of trade measures had market access impacts, especially on products of interest to developing countries. Restrictions on technology transfer were one such trade measure, which were relevant in the CTE's discussion of the impact of such restrictive trade measures on the transfer of EST&Ps, especially those which were multilaterally agreed for dissemination and use for the objective of global environmental protection. In keeping with the general discussion on issues covered by the Market Access Cluster, India had raised some of their concerns in this context. India's paper set out three situations requiring an examination of the ability of WTO provisions, including the TRIPS and TBT Agreements, relating to transfer of technology, especially for market access in terms of reconciling the objectives of environmental protection with IP protection. India was committed to the TRIPS Agreement, as all Members had accepted it as part of the Uruguay Round's single undertaking. Given the technological advances since the TRIPS provisions had been drafted, Members owed it to themselves and to civil society to acknowledge these changes. The US statement on Item 9 called on Members to liberalise trade in environmental goods and services. It would be equally consistent to approach the issues raised in India's paper from the same perspective.

85. India attached importance, in terms of ensuring market access, to technology transfer, especially when such technology was in mandatory domestic environmental standards, measures in developed country markets, or in multilaterally agreed environmental standards or measures affecting imports into developed country markets. The first triennial review of the TBT Agreement revealed the complete lack of information and implementation of existing WTO obligations in this respect in favour of developing countries. Instead of facilitating environmental protection, restrictions on technology transfer led to market access barriers and created obstacles to environmental protection in many developing countries. Among the objectives of Article 7 of the TRIPS Agreement was "the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge in a manner conducive to social and economic welfare". This provision did not indicate how to ensure such welfare, especially in cases where technology was mandated to be used by an MEA. TRIPS provisions allowed private rights holders limited periods of restrictions on such dissemination. In this respect, he quoted paragraph 5 of WT/CTE/W/22: "in cases where technology cannot be easily copied. Then its protection by IPRs will mean that the authorization of the IPR owner has to be obtained to use it when in the absence of such protection it could be used without such authorization. If a voluntary transfer of such technologies is not forthcoming on reasonable terms within a reasonable period, they could be acquired under compulsory licensing, subject to the provisions of Article 31 of the TRIPS Agreement. An important point to bear in mind is that if technologies cannot be easily copied (there are a large number of such technologies), the cooperation of the technology supplier becomes essential for transferring technologies. In such cases, even compulsory licensing will not result in technology transfer unless the cooperation of the technology supplier is obtained". Such restrictions would occur no matter how liberal the foreign investment regime was of the country concerned.

86. India felt that in the three specific cases outlined in their paper, the CTE should reconcile the TRIPS Agreement with agreed global environmental objectives in order to address the fact that the private rights referred to in the TRIPS Agreement were restrictions on trade and competition which inhibited easy access to EST&Ps, especially given the volumes required for mandatory global consumption under relevant MEAs. The aim was to reconcile the objectives of environmental protection with IP protection, including the provisions in the TRIPS Agreement. India did not seek to reopen the question of whether these restrictions were TRIPS-compatible, but to address three specific situations to determine whether and how the TRIPS Agreement facilitated EST&P development, access and transfer. India's paper advocated more than just addressing this issue in terms of the TRIPS Agreement; India sought to address this issue in relation to other relevant WTO provisions as well. As a developing country, India was of the view that such transfers should be on "fair and most favourable terms", since India had not contributed to the global environmental catastrophe caused by industrialisation, which was starkly documented by environmentalists. India's argument for equity should be seen from a historical context; India was at a less prosperous stage of economic development. No TRIPS provision fully addressed the question of encouraging the global use of proprietary EST&Ps, at least where they were mandated to be used under an MEA as defined under Item 1.

87. The US had asked India to cite practical experience to substantiate their concern. He referred to India's experience under the Montreal Protocol. As of 1986, developed countries were consuming 1.3 million tonnes of ozone depleting substances annually. Demand for these substances in India and China was projected to reach 500,000 tonnes in 2010. Today, while developed countries had managed to phase-out consumption of these substances, developing countries had also managed to maintain, and not increase, their consumption. In order to achieve the Protocol's objectives, India needed to convert to ESTs and ensure the costs of non-ozone depleting substances were not higher than those of ozone depleting substances which the Protocol sought to replace. India's experience in acquiring mandated technology under the Protocol was that such technology came with the equipment, requiring the developing country to possess the necessary resources to buy equipment at a price which included the cost of producing the equipment and the technology behind it which has been patented, rather than procuring the technology itself. The Protocol's fairly strong provisions on technology transfer had been inadequate, especially regarding technology transfer for manufacturing medical inhalers which did not use CFCs. Enormous resources had been devoted to developing this new and patented technology; India agreed that the innovators deserved compensation, but this should not involve closing production facilities in developing countries, or cause patients in developing countries to pay higher prices. Due to technological progress, new technologies will replace existing ones. The cost of subsequent technological conversions under the Protocol will again have to be borne by developing countries. Thanks to the Information Technology Revolution, knowledge of new ESTs had been disseminated to developing country markets, while trade-related restrictions on their manufacture and use remained. This was the problem India felt the CTE could usefully take as a case study under this Item, since it directly related to market access and sustainable development. India would respond to the US intervention made at this meeting when this Item was next addressed.

88. The representative of the United States said his delegation was reassured about India's commitment to the TRIPS Agreement. The US looked at these issues from the standpoint of a government which was committed to the TRIPS Agreement and to multilateral and domestic objectives to achieve cooperative environmental protection. If there were a genuine problem, the US engagement would be different. The TRIPS Agreement was not about restricting technology transfer, but providing incentives to innovators to produce technology for the benefit of all humankind.

Item 8 The relevant provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights

89. The representative of the United States said the ideas expressed in WT/CTE/W/65 had been included in India's earlier papers, to which the US had responded at length. India stated that the TRIPS Agreement and the Convention on Biological Diversity (CBD) were intrinsically linked with one another and proposed the CTE discuss the provisions of both agreements and suggest ways to reconcile contradictions in line with the CBD; India failed to identify any contradictions. Despite the statements in paragraphs 3 and 4, India ignored that the subject matter covered by each of these agreements differed. Discussions concerning the control of access to genetic resources and the sharing benefits resulting from their use should focus on national legislation of the source countries governing private or public property, contracts, conservation, export controls, etc. These laws, not intellectual property (IP) laws, governed access to genetic resources and the sharing of benefits from their use. The assertion in paragraph 6 that, prior to the CBD, genetic resources were considered a freely available heritage of humankind was not true. A principle of international law and practice was that a sovereign state had jurisdiction over all persons and property, including any biological resources. Article 15.1 of the CBD reflected this principle. Access to biological resources was governed by the laws of the country in which the resources were located. It was up to that country, if it so chose, to enact laws establishing the conditions under which access to such resources would be granted and ensuring benefits resulting from the use of biological resources located in its territory were shared.

90. India sought to shift responsibility for keeping track of the use of genetic materials and of determining the manner in which benefits would be shared from countries that were the source of genetic

materials to patentees. To do so, it distorted the purpose of the TRIPS Agreement by asserting, in paragraph 12, that TRIPS was a multilateral approach to the use of living resources. This assertion was based only on Article 27 of the TRIPS Agreement, which required Members to provide patent protection for micro-organisms and non-biological and microbiological processes that met the standards of patentability specified in the Article, and to provide patent and/or *sui generis* protection for plant varieties. India asserted that the TRIPS Agreement "failed" to obligate countries to require patent applicants claiming biotechnological inventions to identify "the origin of biological/genetic resources and indigenous/traditional knowledge". If the source of biological/genetic resource was unique, an applicant would have to identify it so that a person skilled in the art would be able to carry out the invention. In the US, indigenous/traditional knowledge closely related to an invention had to be identified as prior art if it were known to the applicant. If the invention would have been obvious to one skilled in the art in light of the prior art, no patent would be granted. Requiring additional disclosure would increase the costs of research because of the record keeping required, thereby reducing research and increasing the costs of products.

91. India's paper asserted that the lack of an obligation in the TRIPS Agreement that countries require "prior informed consent of the country of origin and the knowledge-holder of biological raw material meant for usage in a patentable invention" conflicted with the CBD. Why this was viewed as a conflict was not explained; in fact, no such conflict existed. India's assertion ignored the propose of the TRIPS Agreement, which was to establish minimum levels of IPR protection, not to specify contractual obligations governments were to impose regarding access to genetic materials in other countries' territory. As the paper noted, it was up to the country in which such materials were located, if it so chose, to enact laws establishing the conditions under which access to such resources would be granted, including conditions that ensured benefits resulting from the use of biological resources located in its territory were shared appropriately. This was true for access to indigenous or traditional knowledge, to the degree that it was not publicly available.

92. The suggestion in paragraph 16 that the CTE "examine the pros and cons of evolving a system for patenting indigenous knowledge and local, contemporary innovations of traditional folk" reflected a lack of understanding of patents. If knowledge were truly "traditional or indigenous," it was in the public domain and would not meet the standards of patentability specified in TRIPS Article 27.1. To the degree "traditional folk" developed innovations that met the standards of patentability in Article 27.1, these innovations would be patentable, assuming their native country had a patent system that provided protection for the field of technology of the innovation. Responsibility for assisting traditional folk to obtain such protection primarily rested with their native government. If the innovation of traditional folk should be a design, artistic work, musical composition, industrial design, or undisclosed information, it would be protectable in accordance with other forms of IP for which the TRIPS Agreement provided minimum standards, assuming the traditional folks' native country met those standards. Thus, it should not be necessary for the CTE to examine the possibility of protection further. If any question were to be examined, it should be the manner in which countries could assist their traditional folk to acquire rights and the manner in which these rights could be exploited through investment and licensing. The US did not share India's view as to the implications of Article 16.5 of the CBD which called on Parties to cooperate in order to ensure IPRs were supportive of, and did not run counter to its objectives. As this obligation had been established in 1993, before the conclusion of the Uruguay Round, CBD Parties had accepted it in view of their obligations under the CBD.

93. The representative of India asked for a copy of the US statement. India had addressed the "sovereignty principle" in paragraph 8. India disagreed with the US on the lack of any need to identify the source of origin, which would clarify the examination of patent applications in the sense of safeguarding the origin of biodiversity resources. As demonstrated by the recent case in the US Patent Office relating to the patent for turmeric (involving the revocation of the patent once the Indian CSIR had proved the source of origin to the USPTO), the issues raised in paragraph 12 should be addressed. India did not understand the US argument on the negotiating history of the TRIPS Agreement in relation to including therein obligations assumed by Members who were also CBD Parties. India's recollection of these negotiations indicated the TRIPS Agreement, in large part, had already been drafted before the CBD, and the possibility

of amending the text had been minuscule once incorporated in the Dunkel Draft. Thus, WTO Members' obligations under the CBD may not be addressed in the TRIPS Agreement.

94. According to the CBD, there was a need for cooperation between the WTO and the CBD under Decision III/17 of the third CBD meeting, which related to IPRs, the trade-related aspects of which were covered in the WTO. India's paper on this issue should be seen in this context. Work on this Item should begin by exchanging information related to Article 16 of the CBD and the laws and regulations available in the TRIPS Council under Article 63 of the TRIPS Agreement. India proposed that, under paragraph 8 of the CBD Decision, the objective should be to help develop a common appreciation of the relationship between IPRs and the relevant provisions of the TRIPS Agreement and the CBD. India requested that the CBD Secretariat be invited to provide information on the progress made on paragraph 3 of Decision III/17 in order to assess how relevant development cooperation programmes had addressed the issue of capacity building to achieve the CBD's objectives related to IPRs in accordance with paragraph 8 of the Decision. India supported the examination of any linkages between Article 15 of the CBD and relevant TRIPS Articles; the US elements complimented India's proposal to exchange information, which was the CBD's expectation based on its letter to the WTO dated 11 May 1997. India looked forward to further work on this Item in 1998.

95. The representative of the United States said, concerning the temporal relationship between the TRIPS Agreement and the CBD, where Members had seen problems with elements of the Dunkel text, changes had been proposed. If Members, having just become CBD Parties, had felt there was a conflict between the two Agreements, something would have been done.

96. The representative of Malaysia, on behalf of ASEAN, requested a copy of the US and India's statements.

97. The representative of Canada encouraged Members to focus on the submission by the CBD Secretariat (WT/CTE/W/64), which raised complex issues and requested feed-back. He suggested the Secretariat prepare a factual background paper on the trade-related issues raised in the context of climate change.

98. The representative of the United States said it was premature to prepare a paper on climate change issues.

1997 Report of the CTE

99. The CTE adopted its 1997 Report (WT/CTE/2), which would be forwarded to the General Council at its meeting on 10 December.

100. The representative of the European Communities welcomed the adoption of the Report, although the EC would have wished a more substantial and forward-looking Report. The representative of Poland said future Reports should be more detailed and constructive. The representative of Egypt said the Report should be consistent with other WTO Committee Reports and should specify the number, if not dates, of meetings in 1998.

101. The Chairman said Members had fulfilled the objectives set out for work this year. The CTE had deepened and broadened the analysis of all the Items on the work programme and advanced the discussions in 1997. Members should be congratulated for their willingness to engage in a meaningful and constructive dialogue on all Items on the agenda, building on the positions set out in the 1996 CTE Report. An educational process for everyone concerned in the discussions on trade and environment had been advanced, including intergovernmental and non-governmental organizations. The information session with the Secretariats of MEAs and multilateral financial mechanisms at the September meeting had been a valuable experience, which could usefully be repeated. Another form of outreach, which had helped to deepen and broaden the CTE's understanding, was the NGO Symposium held in May at the Secretariat's initiative with a wide array of environmental, developmental, consumer and business NGOs. The

Symposium had been a useful exercise which the Secretariat would build on in March 1998, back-to-back with the CTE's meeting. Further details would be available to Members in early 1998. Informal consultations would be held to determine the dates of CTE meetings in 1998.