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Committee on Trade and Environment

REPORT OF THE MEETING HELD ON 21-22 JUNE 1995

Note by the Secretariat

1. The Committee on Trade and Environment held its third meeting on 21-22 June 1995 under the chairmanship of Ambassador Juan Carlos Sánchez Arnau of Argentina. The agenda for the meeting was adopted as contained in WT/AIR/96.

2. The Chairman recalled that the focus of the meeting would be on item eight: "Trade-Related Aspects of Intellectual Property Rights (TRIPS)"; item nine: "Services"; and item two: "the relationship between environmental policies relevant to trade and environmental measures with significant trade effects and the provisions of the multilateral trading system." After these items had been taken up, delegations could return to the items discussed at the last meeting if they wished, namely items four, five and ten. He noted the two background documents prepared by the Secretariat for this meeting: WT/CTE/W/8 on "Environment and TRIPS" and WT/CTE/W/9 on "Environment and Services." The Secretariat also had prepared a Note on the results of the third session of the Commission on Sustainable Development in April 1995, contained in WT/CTE/W/7.

3. With respect to item eight, namely "TRIPS", the Chairman recalled that the Ministerial Decision on Trade and Environment stated that the Committee on Trade and Environment should consider the relevant provisions of the TRIPS Agreement as an integral part of its work, within the Committee's terms of reference.

4. Concerning item nine, namely "Services", the Ministerial Decision on Trade and Environment stated that the Committee should consider the work programme in the Decision on Trade in Services and the Environment as an integral part of its work, within the Committee's terms of reference. The Ministerial Decision on Trade in Services and the Environment stated that "in order to determine whether any modification of Article XIV of the Agreement is required to take account of such measures [i.e. measures necessary to protect the environment], to request the Committee on Trade and Environment to examine and report, with recommendations if any, on the relationship between services trade and the environment including the issue of sustainable development. The Committee shall also examine the relevance of intergovernmental agreements on the environment and their relationship to the Agreement."

5. The Chairman informed the Committee that he had held an informal meeting on the meeting's agenda from which had emerged that an area of focus under item eight was the importance of the relationship between the TRIPS Agreement and the Convention on Biological Diversity (Biodiversity Convention) and under item nine that the scope of Article XIV of the General Agreement on Trade in Services (GATS) would need to be explored.

Item eight of the work programme:

Trade-Related Aspects of Intellectual Property Rights (TRIPS)

6. The representative of Nigeria said that the Committee needed to establish the parameters for discussion of this new item within the WTOs competence. Given that the linkages between the TRIPS Agreement and the environment were complex and evolving, his delegation preliminary view was that work in this area should address: (i) whether there was a link between intellectual property rights (IPRs) and the environment; discussions elsewhere had shown that this linkage, which was self-evident to some, was questioned by others; (ii) whether the TRIPS Agreement facilitated access to and transfer of technology, the development of environmentally-sound technologies, and, in its operation, ensured compatibility with provisions of relevant multilateral environmental agreements (MEAs) and the goal of sustainable development; (iii) whether the TRIPS Agreement prevented the possibility to control technology that might have adverse environmental effects; and (iv) what the main concerns in the relationship between the TRIPS Agreement and the environment were and how to address them.

7. Although his delegation did not have responses to these questions at this stage, he referred to the TRIPS Agreement's relevant provisions to determine whether it had the flexibility to make its operations compatible with sustainable development. He recalled that the Ministerial Decision on Trade and Environment established clear goals for the Committee's work programme, including the pursuit of sustainable development. Given that IPRs had effects on the environment and hence development, the links between IPRs and the environment should be examined by assessing the effects that might result from the intervening variable of trade; these links were established by Articles 8 and 27 of the TRIPS Agreement. His delegation considered that the current level of understanding of the relationship between the TRIPS Agreement and the environment needed to be raised as had been previously noted by the delegation of the United States. The Committee should move beyond questioning whether or not links existed and focus on raising the level of understanding of these links. He said that trade-related IPRs had profound sectoral impacts on living resources, agriculture and pharmaceutical products, and therapeutic medicine.

8. The transfer of technology, including biotechnology, was an important aspect of the TRIPS Agreement. The objective of Article 7 was to promote technological innovation, to transfer technology to the mutual advantage of producers and users of technological knowledge in a manner conducive to social and economic welfare, and to balance rights and obligations. In the event of tension between the objectives of promoting technological innovation and the transfer of technology, the TRIPS Agreement contained provisions that addressed this difficulty. For instance, disclosure requirements under Article 29 obliged Members to require patent applicants to disclose the invention. Article 30 permitted Members to make limited exceptions to rights conferred on patentees, for example for acts undertaken for experimental purposes. Article 31 on compulsory licensing provided for a licence granted without the agreement of the patentee, under certain conditions, to an applicant to use a patented invention where the right holder had not been willing to grant a voluntary licence on reasonable commercial terms within a reasonable period of time. Article 66.2 required developed country Members to provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technological transfer to least-developed countries to enable them to create a viable technological base. These provisions led his delegation to conclude that the TRIPS Agreement provided a flexible scope for access to and transfer of technology, including biotechnology. These issues raised in the context of the TRIPS Agreement were linked to corresponding provisions in the Biodiversity Convention.

Article 16 of the Biodiversity Convention emphasized the facilitation of access to and transfer of technology, for the conservation and sustainable use of biodiversity, as well as adequate and effective IPR protection. Recognizing that IPRs may have an influence on the Biodiversity Convention, Article 16.5 stated that Parties should cooperate to ensure that IPRs were supportive of the Convention's objectives.

9. Thus, provisions in the TRIPS Agreement and the Biodiversity Convention provided facets for ensuring harmony and compatibility in the operation of these Agreements for the goal of sustainable development. The Committee should pursue, therefore, concrete forms of cooperation between these Agreements based on the essential provisions of the Articles to which he had referred. His delegation considered that the TRIPS Agreement provided reasonable flexibility for facilitating access to and transfer of technology as envisaged in the Biodiversity Convention. If the TRIPS Agreement functioned as it should, it could play a crucial role in developing technologies that would respond, amongst other things, to environmental problems. However, there was a need to monitor the measurable effects of the TRIPS Agreement on the transfer of technology, with regard to biodiversity conservation and the pursuit of sustainable development. The likelihood of the TRIPS Agreement promoting environmentally-sound technology would depend on the TRIPS Agreement's implementation and the extent of cooperation sought between the TRIPS Agreement and relevant MEAs, including the Biodiversity Convention.

10. Article 8.1 of the TRIPS Agreement provided that Members in formulating or amending their laws may adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development. Article 27.2 provided that Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which was necessary to protect public order or morality, including the protection of human, animal or plant life or health or to avoid serious prejudice to the environment. Article 30 provided that Members may make limited exceptions to the exclusive rights conferred on patentees. Although, these provisions were not obligatory, it would be unreasonable for Members to act in a manner that did not protect human, animal or plant life or health or avoid environmentally-prejudicial effects of technology. If a consensus were to emerge to modify the TRIPS Agreement for environmental reasons, then one possibility would be to make obligatory the provisions of Articles 8.1, 27.2 and 30.

11. His delegation's view was that IPRs should be given strong and adequate protection and that Members should have the authority, within the TRIPS Agreement's provisions, to check and control technology, based on scientific evidence that might have adverse environmental effects. These two goals were not incompatible and were achievable within the TRIPS Agreement. His delegation shared the concerns of some delegations concerning the need to curb technology. In this regard, he referred to the release of new biotechnological products into the environment that would have uncertain environmental consequences, such as the undesirable effects of any uniformization of genetic diversity for commercial purposes or agricultural chemicals which were routinely tested and approved before authorization was granted for marketing. Although the TRIPS Agreement was reasonably flexible to deal with these concerns under Articles 8.1 and 27.2, much was left to Members' discretion since these provisions were not obligatory. Furthermore, the TRIPS Agreement did not prohibit or limit action for addressing adverse environmental effects that could be taken under, for example, Article XX of GATT 1994 and the TBT Agreement.

12. He highlighted some general concerns on the relationship between the TRIPS Agreement and the environment which carried potentially high risks whose severity should not be underestimated. Many developing countries were concerned about the risk that industrial rights,

which he reiterated should be adequately protected, would prevail over traditional interests and right holders mentioned in Articles 8(j) and 10(c) of the Biodiversity Convention. The TRIPS Agreement's operation should exclude this possibility and accord recognition to traditional interest and right holders. He identified the latter to be an area of potential tension and conflict that could be resolved by multilateral cooperation.

13. His delegation considered that the TRIPS Agreement was extending into areas that were not considered appropriate for patentability. For instance, his delegation was opposed to the patenting of life forms. Recently, there had been an application from a technology group for a patent on the Medium Earth Orbit in space. The issue of patentable subject matter was exceptionally problematic and the risk was that patents might be accorded without serious consideration of their wider consequences. Therefore, the review process of patentable subject matter under Article 27.3 should be made precise with clear language on the need for biodiversity conservation and the sustainable use of its components in water, land and space. He emphasized that the substantive details of patentable subject matter might be a subject for the combined efforts of the TRIPS Council and the Committee. The Committee should ensure that it did nothing that limited the consideration of appropriate action in relevant MEAs, such as the Biodiversity Convention, and should ensure that cooperation was engendered. He noted that the discussion was at an initial stage and the linkages between the TRIPS Agreement and the environment should be developed free of tension and controversy.

14. The representative of India said that since this was the first meeting at which this item was being discussed, his remarks were of a preliminary nature and raised issues for the Committee's consideration. He noted that his delegation's views were still evolving and it had an open mind concerning the various issues which might be involved under this item. He recalled that the Committee was mandated to make appropriate recommendations on whether any modifications of the provisions of the multilateral trading system were required, while ensuring that these were compatible with an open, equitable and non-discriminatory trading system. The mandate also made clear that the rules governing the multilateral trading system should promote sustainable development, with special consideration to the needs of developing countries. It was against this background that his delegation approached the relationship between the TRIPS Agreement and the issue of environment and sustainable development.

15. The TRIPS Agreement's central objective, recognizing that IPRs were private rights, was the reduction of distortions and impediments to international trade and for this reason it addressed the need to promote effective and adequate IPR protection. Even so, it was important to bear in mind that the TRIPS Agreement aimed at a certain minimum standard of IPR protection and not the harmonization of standards world-wide.

16. Each MEA had clearly defined objectives; the Biodiversity Convention's objectives dealt with the conservation of biodiversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the use of genetic resources, including access to genetic resources and transfer of relevant technologies. The Montreal Protocol's objective was to phase out ozone-depleting substances. At first glance, the TRIPS Agreement and these two MEAs were different in scope, subject matter and intent. WT/CTE/W/8 proceeded on the basis that there was no disharmony between the TRIPS Agreement and relevant MEAs. For example, paragraph 56 noted that nothing in the TRIPS Agreement prevented a government or international financial mechanism from providing financial assistance to enable privately held proprietary technology on concessional terms. However, it might be argued with equal conviction that there was nothing in the TRIPS Agreement which provided for specific mechanisms for achieving sustainable development and environmental protection. This illustrated that there was a complex

interface between the TRIPS Agreement and various MEAs, which his delegation hesitated to characterize as a contradiction or a conflict. He raised a number of issues which the Committee could examine with an open mind, keeping in view its mandate and terms of reference.

17. The relationship between IPRs, access to and transfer of technology and environment and sustainable development was captured in Article 16 of the Biodiversity Convention, which provided that technology transfer must be accomplished on terms which recognized and were consistent with adequate and effective IPR protection. It also provided that Parties, recognizing that patents and other IPRs might have an influence on the Convention's implementation, should cooperate in this regard subject to national legislation and international law to ensure that such rights were supportive of and did not counter its objectives. The issue was whether the Biodiversity Convention authorized Parties to use measures which limited or restricted IPR protection on grounds that this was consistent with the Biodiversity Convention's objectives, especially as it related to technology transfer. Part of the problem was that IPRs did not always impact on technology transfer. WT/CTE/W/8 observed that most technology was in the public domain and that governments were free to transfer technology on concessional terms, when such technology, patented or otherwise, was in their control. WT/CTE/W/8 added that there was nothing in the TRIPS Agreement that prevented a government or an international financial mechanism from providing financial assistance to enable the voluntary transfer of privately-held proprietary technology on concessional terms. This might be correct, but it raised the question as to whether IPRs, at least in some cases, impeded the achievement of the Biodiversity Convention's objectives. The response should delineate what the relevant IPRs were vis-à-vis the Biodiversity Convention; the three IPRs relevant to the Biodiversity Convention, specifically to technology transfer, were patents, plant breeders' rights (PBRs) and trade secrets.

18. Article 27.2 of the TRIPS Agreement made it clear that Members could exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which was necessary to avoid serious prejudice to the environment. This acknowledged that exclusion from patents was sometimes necessary to avoid serious prejudice to the environment. Since language in Article 27.2 tracked Article XX of GATT 1994, the use of the word "necessary" could be interpreted to mean the "necessity test" that had been acknowledged in adopted panel reports. Some would argue for a broader interpretation of Article 27.2 in light of MEAs than corresponding GATT panel decisions interpreting Article XX(b). This link should be recalled during discussions of Article XX under other items of the work programme.

19. Concerning patents and the Biodiversity Convention, he inquired as to whether a country could implement the Convention by resorting to compulsory licensing of, or excluding entirely from IPRs, a crop variety that used genetic resources from its territory. This exclusion could be justified as a means of encouraging technology transfer to the country that was the source of the genetic resources. He posed this as a question at this stage and would be interested in other delegations' reactions as this was not merely a hypothetical question. To emphasize the complexities of the issues, he referred to the controversial area of patenting of life forms. Although Article 27.3(b) of the TRIPS Agreement excluded from patentability plants and animals, it did not exclude micro-organisms. Since micro-organisms were living organisms, their patenting had been called the slippery slope that could lead to patenting of all life forms. This had controversial dimensions of ethics, value judgements and morality which had implications for plant and animal life.

20. Article 27.3(b) stated that "Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof." In contrast, Article 8 of the Biodiversity Convention set out the obligations to conserve biodiversity,

including *in situ* conversation of plant and animal crops which might depend heavily on their natural habitat for protection. He said that it could be argued that IPRs for plant varieties militated against *in situ* conservation and promoted monocultures with negative implications for biodiversity. The worst casualty, in an IPR regime for plant varieties, was the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biodiversity, highlighted in Article 8(j) of the Biodiversity Convention. It was possible to contemplate a *sui generis* regime in accordance with Article 8(j) in which new forms of IPRs were created for traditional knowledge and innovations of local and indigenous communities. By itself, this might not conflict with the TRIPS Agreement, which concerned minimum standards of protection and not maximum or harmonized standards. However, he inquired as to whether a country could challenge another country's IPR regime for failing to give adequate protection to informal innovations that originated in indigenous or local communities and was, thus, in violation of Article 8(j). The answer lay in evolving a *sui generis* system that encompassed "Common IPRs" which respected Article 8(j).

21. Trade secrets were used to protect subject matter which was unpatentable as it did not meet the criteria for a patent or as the holder did not want to publish the subject matter for a competitor to use the information to the owner's disadvantage. Trade secrets could be applied to a wide range of information; for example, scientific information or a traditional healer's knowledge could be protected. It had been agreed, as in Article 8(j) of the Biodiversity Convention, that traditional knowledge must be promoted and made more widely available. In this regard, he noted that the knowledge must be used with the original holder's approval and involvement and the communities concerned must receive a fair share of the benefits from its use. This was critical as traditional communities' knowledge provided scientists with a short-cut to developing new products, particularly in agriculture and medicine. For example, virtually all the drugs derived from plants that were used in modern Western medicine were discovered from use in traditional societies. New legislation and codes of conduct, including changes in the notion of trade secrets, might be needed to ensure that the communities that were the source of this knowledge received benefits from its exploitation. This was a difficult task since traditional communities did not usually have a legal identity and the knowledge concerned might not be confined to a single village or group, posing problems of deciding who should derive the benefit and how.

22. He recalled that the Biodiversity Convention reaffirmed that states had sovereign rights over biological resources in their territories and the principal responsibility for biodiversity conservation and its sustainable use. His delegation reiterated its fundamental conviction that MEAs, such as the Biodiversity Convention, were the best means to tackle environmental and sustainable development issues on the basis of consensus and international cooperation.

23. He said that genetically modified organisms (GMOs), produced by evolving biotechnologies, were genetic combinations from widely different types of organisms that did not occur in nature and were, thus, alien to the ecosystems in which they were released, posing risks to biodiversity and to the environment. There was much debate to ensure that GMOs did not injure health or the environment and developing countries had supported an international agreement on bio-safety standards in this regard. International cooperation was necessary in this area since GMOs, unique because they could reproduce and migrate sometimes without human intervention, did not respect international frontiers once they were released into the environment. Also, there might be concern that some industrialized countries exported products in this context which posed a risk to health or the environment. As such, these issues were relevant for the Committee's discussions under item 7, namely "the issue of the export of domestically prohibited goods."

24. There were other provisions in the Biodiversity Convention whose relationship with GATT/WTO Articles could be examined. He inquired as to whether under Article 15(2) of the Biodiversity Convention, a Party could discriminate between Parties seeking access to the genetic materials found in its territory according to whether the use to which the access seeker would put the genetic resources would be environmentally-sound. This would involve Articles I and XI of GATT 1994. Similarly, a country challenging bio-safety access conditions, imposed pursuant to the Biodiversity Convention, needed to think of obligations/rights under the SPS and TBT Agreements. These issues were similar to those that were being examined under item one concerning MEAs, to which the scope of Article XX(b) or (g) was critical.

25. The relationship between an MEA, such as the Biodiversity Convention, and other international agreements raised a host of questions. The relationship with other agreements was addressed by Article 22 of the Biodiversity Convention, which stated that the Biodiversity Convention's present provisions should not affect the rights and obligations of any Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause serious damage or a threat to biodiversity. He inquired as to whether this could be interpreted to mean that where the Biodiversity Convention and another agreement conflicted, the Convention would trump the other agreement if exercising the other's provisions would seriously damage or threaten biodiversity. This issue should be considered under other items, especially on MEAs.

26. Under the Montreal Protocol, projects pertaining to CFC phase-out were presented to the Multilateral Fund for financing; these projects usually involved technology transfer. In this regard, IPRs were central to determining the direction and content of technology transfer. Unless multilateral rules on the transfer of IPR protected technology were framed, countries in possession of such technology would have the discretionary power to restrict access to technology and to impose trade restrictions on products from allegedly environmentally-unsound technologies. He considered that this was an issue which the Committee might examine.

27. Considering the relationship between WTO and MEA dispute settlement mechanisms, which was a separate item under discussion in the Committee, he noted that this issue would be equally relevant for goods and services as it was for IPRs. A country which considered that its rights had been violated under an MEA might not always have a choice regarding the dispute settlement forum. Also, the question of MEA non-parties and their attitude towards the rights and obligations of MEA Parties would be a determining factor in how the situation evolved. The Biodiversity Convention and the TRIPS Agreement were new agreements and Parties' interpretive guidance would be decisive in determining the ultimate relationship between them. His delegation recognized that there could be varying perceptions as to the forum in which these issues should be dealt and considered that the Committee should consider them in view of other fora's discussions.

28. The representative of Korea gave his delegation's preliminary observations on this item since this was the first discussion of it in the GATT/WTO framework, it was interlinked with other items which were under consideration, and it had far-reaching socio-economic and legal implications. Given that the negotiations of MEAs containing IPR-related provisions had been entangled with confrontation and discrepancies of views, the WTO should give MEAs some guidelines or principles dealing with IPR-related issues to avoid ambiguity and possible conflicts. The TRIPS Agreement's provisions relevant to matters raised in discussions in environmental fora, outlined in Section V of WT/CTE/W/8, were a good basis upon which to ensure that the multilateral trading system and MEAs were mutually supportive. Articles 7 and 8 of the TRIPS Agreement contained provisions for striking a balance between the rights and obligations of IPR holders and users, and between the need to promote inventions and the need to prevent abuses

of IPRs. Article 27.2 provided explicitly for patenting requirements necessary to protect human, animal and plant life or health, or to avoid serious prejudice to the environment. Considering that it was necessary to make the different objectives of MEAs and the WTO mutually supportive with regard to IPRs, his delegation considered that Article 27.2 should be interpreted in a manner conducive to MEAs objectives, while not derogating from the TRIPS Agreement. A cautious approach should be taken since MEAs with IPR-related provisions and the TRIPS Agreement had equally little experience in their implementation. The Biodiversity Convention had been negotiated to strike a balance between technology transfer and access to biodiversity; Article 16 of the Convention was in the early stages of implementation.

29. Considering the TRIPS Agreement's role in transferring environmentally-sound technology, his delegation considered that there was a need for stronger IPR protection to foster innovation for environmental protection and MEAs should strengthen the protection of subject technology for their respective objectives. If a patent holder of environmentally-sound technology was allowed to unreasonably refuse to license the technology, its transfer would be impossible even on a commercial basis and the patent holder could secure monopolistic profits. In the Montreal Protocol, after CFC's were regulated or prohibited, HCFC production technology would become crucial as an alternative technology and if access to it was denied, even on commercial terms, this might give an unfair disadvantage to the technology users.

30. In his delegation's view, it was not clear that the TRIPS Agreement provided a satisfactory solution for environmental protection. Article 27 should be reviewed, as well as the Articles relating to compulsory license and anti-competitiveness practices, to confirm whether they were sufficient to strike a balance between the protection of patent holders and users which would ensure a wider diffusion of environmentally-sound technology. In the meantime, efforts should be made to promote technology transfer that was consistent with MEAs and the TRIPS Agreement. He recalled Chapter 34 of Agenda 21 which stated that technologies in the public domain should be freely transferred to further MEAs objectives and the means explored to encourage the transfer of privately-owned technologies protected by IPRs. There was also a need to follow developments in relevant MEAs, particularly the Biodiversity Convention and the International Convention for the Protection of New Varieties of Plants (UPOV Convention), and the development of emerging IPR-related concepts, such as farmers' rights and plant breeders' rights.

31. The representative of Egypt identified some issues for discussion concerning the linkages between the TRIPS Agreement and environment-related issues. Although environmental concerns had not occupied a priority during the TRIPS Agreement's negotiation, it was flexible as far as the environment was concerned as it did not hinder any action to address adverse environmental effects, nor did it stand in the way of rewarding innovation in the informal sector. She said that Articles 8.1 and 27.2 were relevant to the Committee's work. If the TRIPS Agreement put environmental-sound technology beyond the economic reach of developing countries, this would have a negative impact on the environment and on developing countries' efforts to cope with environmental requirements. Her delegation considered that, as stipulated in Article 7 of the TRIPS Agreement, patenting encouraged the development and dissemination of new technology. She inquired as to the best way to facilitate access to and transfer of technology to promote sustainable development in developing countries and to what extent could developing countries afford this. Section V of WT/CTE/W8 should be examined with regard to how the TRIPS Agreement was linked to the generation of, access to and transfer of environmentally-sound technology.

32. When addressing these issues, the Biodiversity Convention was relevant as it dealt with IPRs and the environment. Based on WT/CTE/W/8, as well as relevant non-governmental

organizations' (NGOs) papers, she posed a series of questions which the Committee could address. She inquired as to the relationship between Article 16.1 of the Biodiversity Convention, which provided for transfer of technology relevant to conservation and sustainable use of biodiversity or technology which used genetic resources in an environmentally-sound manner, and Article 33 of the TRIPS Agreement, which provided for a 20 year term of protection. She asked how these two objectives interacted without adversely affecting one another, whether they could co-exist and whether the TRIPS Agreement allowed discretion at the national level in the use of patenting for plant resources. Concerning the usage of Article 31(k) of the TRIPS Agreement on compulsory licensing, she inquired as to whether it served to facilitate access to and transfer of technology, including biotechnology, on fair and most favourable terms, as stipulated by Article 16.2 of the Biodiversity Convention.

33. She asked which agreement would prevail if a conflict arose between the TRIPS Agreement and the Biodiversity Convention, specifically between Parties and non-Parties of either. Also, she inquired as to the relevance to the Committee's work of Article 16.5 of the Biodiversity Convention, which stipulated that IPRs should be supportive of the Conventions' objectives. In this context, there should be an examination of paragraph 12 of WT/CTE/W/8, which referred to Article 22 of the Biodiversity Convention that emphasized the Convention's supremacy if there was serious damage or a threat to biodiversity.

34. She said that there existed a wide range of opposing views and positions, from which the Committee could benefit. Development and environment NGOs had focused long before the Committee on these issues and their views should not be neglected in order not to be confronted with the same kind of situation which had confronted the TRIPS Agreement, namely the criticism that it had been negotiated out of the public's view. She inquired as to whether a dialogue with NGOs should be through a formal or informal round table discussion or seminar. Her delegation considered that this was an important issue which necessitated the Chairman's further consideration, especially with regard to the relationship between the TRIPS Agreement, sustainable development and access to and transfer of environmentally-sound technology, including biotechnology.

35. The Chairman said that he would consult with the Committee in this respect and recalled that relations with NGOs was included under item ten of the work programme.

36. The representative of Malaysia, speaking on behalf of the ASEAN countries, said that the TRIPS Agreement represented a significant accomplishment with improved coverage and enforcement of IPRs which allowed Members to deny the granting of patents in order to protect public order or morality, to protect human, animal or plant life or health or to avoid serious prejudice to the environment. His delegation's view was that the focus should be on implementation as the TRIPS Agreement contained the necessary prerequisites for the development of technology and its transfer, and addressed the environment. WT/CTE/W/8 noted that IPR-related issues had been the subject of debate in various environmental fora, specifically concerning patenting of specific technology. His delegation considered that there was sufficient coverage of this issue in the TRIPS Agreement.

37. Provided that it was effectively implemented, the TRIPS Agreement contained provisions which were conducive to the development of technology, as well as the protection of the environment. The TRIPS Agreement granted incentive for the generation of new technology, by giving the inventor an exclusive right over the invention's use for a period of time, which should provide for the development of environmentally-sound technology. The TRIPS Agreement's objective was to promote not only technological innovation, but "the transfer and dissemination of

technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations." The TRIPS Agreement provided the basis for the development of environmentally-sound technology and the requirement that this technology be made available for the benefit of mankind. Such a cooperative approach would promote growth and sustainable development, in particular in developing countries. His delegation considered that technology transfer would be facilitated without recourse to other provisions.

38. As signatories to the Biodiversity Convention, the ASEAN countries were committed to ensuring that its objectives were achieved. As noted in WT/CTE/W/8, during the Biodiversity Convention's negotiation, IPR-related issues were an important component of the provisions dealing with access to and transfer of technology, and provisions had been included which were significant to technology transfer, including research and training, exchange of information and technical cooperation. Also, it had been recognized that in order for the effective technology transfer to occur there had to be a synergy between the hard component (machinery and equipment) and the soft component of technology (skills know-how and design). It was envisaged that the Convention's proper implementation would pave the way for conserving biodiversity and using its components sustainably.

39. He recalled the preamble to the Ministerial Decision on Trade and Environment, which mentioned the objective of "protection of the environment and the promotion of sustainable development." While the WTO would create greater disciplines and a more conducive environment in the conduct and development of international trade in goods and services, it also had the responsibility to contribute towards the promotion of sustainable development. This would not entail that the Committee should deliberate upon scientific, philosophical, religious and ethical issued, but it was relevant that Members take due account of discussions elsewhere. The Committee would need to examine the implications for the TRIPS Agreement, bearing in mind the review of its relevant provisions referred to in Article 27.3(b); there were implications of financial and social costs with respect to technology transfer and subsequent implications on trade, market access and consumer prices. The TRIPS Agreement's review should address how to more precisely interpret the scientific and practical definitions of terms, such as "plants", "animals", "micro-organisms", "biological processes", "plant varieties", and "effective *sui generis* system". He considered that it was time to start a process to clarify the precise definition and interpretation of key terms and their meanings.

40. Environmental concerns were that the patenting of genes, genetic materials and genetically-engineered crops and plants promoted or accelerated the process by which plant and agricultural biodiversity was eroded; biodiversity erosion was recognized as a major environmental problem, which could have serious developmental consequences. Also, scientists and ecologists were concerned that the introduction of patent regimes for plant and crop varieties would contribute to the spread of genetically-engineered crops, which could lead to ecological problems, such as the proliferation of super weeds, the erosion of traditional plant varieties, and the spread of herbicide-resistant characteristics. The Committee should be aware of such concerns and mechanisms should be set up so that discussions in other fora, such as the Biodiversity Convention, could be fed into its work.

41. Social justice and equity concerns were that the IPR system that would apply to biological materials would tend to recognize and reward corporations that undertook genetic engineering of plants, crops, animals, and manufactured biotechnology products in agriculture and medicine. The IPR system was not suited to recognizing or rewarding knowledge and innovation of the non-formal sector, such as farmers and indigenous peoples whose knowledge of crops and

medicinal plants had been the basis for much of the development in agriculture and medicine. There was a legitimate fear that the real innovators and owners of biodiversity knowledge would be unrecognized and marginalized, and that they might have to pay for the patented products. For example, there was concern that developing country farmers would have to pay for patented and genetically-engineered seeds. Ethical and moral concerns were related to the appropriateness of patenting life forms. According to religious belief, life was created by God; although genetic engineering might shuffle genes or alter the form of living things, it did not in itself create life. Therefore, he inquired as to whether the products of such genetic engineering could be patentable. Discussions in scientific, philosophical, religious and ethical fora should be considered in the Committee's deliberations on the TRIPS Agreement in the context of trade and environment.

42. The representative of Argentina said that a number of concerns had been raised as to the apparent conflicts between IPR protection and environmental conservation. As other delegations had mentioned, environmental risks could arise as a consequence of technological advances, such as the development of genetically-engineered animal and plant species. In certain circumstances, their release into the environment could have unforseen consequences and could affect biodiversity and alter in a hazardous manner the evolution of other species. His delegation recognized the legitimacy of these concerns although they did not arise exclusively from environmental issues but from moral concerns, such as the patenting of life forms. However, the Committee did not have the required scientific or technical knowledge required to analyse them.

43. He suggested that discussion should focus on possible areas of cooperation between the TRIPS Agreement and MEAs which contained IPR-related obligations. It would be useful to identify the IPR-related obligations contained in MEAs in order that the Committee would be in a position to receive information on their implementation and to decide whether it would be appropriate for the relevant information to be channelled through the TRIPS Agreement's notification mechanisms. For example, Article 16.3 of the Biodiversity Convention provided that each Party should take legislative, administrative or policy measures, as appropriate, with the aim that Parties, especially developing country Parties, which provided genetic resources, had access to technology and its transfer on mutually agreed conditions. As other delegations had mentioned, this obligation was compatible with the obligation to notify laws, regulations and final judicial decisions of general application made effective by Members pertaining to the subject matter of the TRIPS Agreement, pursuant to Articles 63.1 and 63.2. Thus, his delegation considered that it would be useful to concentrate on the possible synergies between the TRIPS Agreement and relevant MEAs.

44. The representative of Brazil said that this issue was complex as it dealt with new multilateral trading rules, mostly untested in their application, which needed to be examined from a new perspective. Two potential areas for the Committee's examination were the consequences of the TRIPS Agreement for technology transfer, particularly environmentally-sound technology to developing countries, and the relationship between the TRIPS Agreement and the Biodiversity Convention. Given that the Committee was beginning its examination of these issues, his delegation did not want to hasten to any conclusions, but wished to confirm whether other delegations had identified these issues for discussion.

45. Concerning the TRIPS Agreement's impact on technology transfer, his delegation noted the theoretical arguments put forth in WT/CTE/W/8 and considered that it would be some time before more empirical and conclusive evidence was available. His delegation was commitment to the implementation of the TRIPS Agreement and the Biodiversity Convention; as Parties to both, it was in its interest to ensure their harmonious evolution. The Biodiversity Convention was one

of the UNCED's key results and his delegation reiterated its call to governments, who had not done so, to sign or ratify it. Future developments in the Biodiversity Convention would be relevant to the TRIPS Agreement, in particular to the review foreseen in Article 27; this review would touch on the patenting of life forms, an area which was receiving increased public attention. The Committee's discussions should not prejudge the results of this debate or of the Biodiversity Convention's discussions in this respect, and it should be kept informed of developments, as had been suggested by the delegation of Argentina. Results of these discussions would indicate whether an additional perspective should be added to discussions under item one.

46. The representative of Chile recalled that IPRs were a fundamental issue during the Biodiversity Convention's negotiation. The different perspectives of industrialized and developing countries had been reflected in the ambiguities and compromises of the Convention's language, particularly Article 16. The provisions of this Article had been criticized. He said that these provisions, which addressed access to relevant technologies being facilitated for the conservation and sustainable use of biodiversity, were vital to developing countries. One of the important issues relating to the harmonization of IPRs with environmental protection was whether Article 16.5, which said that IPRs should support rather than stand in the way of the Convention's objectives, authorized Members to limit IPRs in order to promote technology transfer. In this area, there was a controversy regarding whether patents should be given to genetically-modified organisms. It was not clear that this was the concept of minimum standards for IPR protection that was contained in the TRIPS Agreement, although the Agreement provided for different types of standards, such as patents, copyright, industrial design and industrial secrets, and provided for deadlines and legal mechanisms for IPR protection.

47. Concerning the protection of plant varieties, there was a considerable degree of discretion in the way in which Members could apply the TRIPS Agreement. His delegation had acceded to the UPOV Convention, which demonstrated the consistency of its legislation with an effective *sui generis* system, as outlined in the TRIPS Agreement. In this regard, he referred to the relevant provisions on patents compiled by the Chairman of the Negotiating Group, contained in Annex 4 of WT/CTE/W/8. He recalled that since Article 27.3 of the TRIPS Agreement excluded from patentability plants and animals other than micro-organisms, and essentially biological processes, any restrictions under the Biodiversity Convention should be compatible with this, although it was not possible to anticipate what a panel finding might be in a specific case. He noted that the Biodiversity Convention was being analysed by its Conference of the Parties and the provisions of Article 27.3(b) of the TRIPS Agreement would be reviewed four years after the entry into force of the Final Act. From a broader perspective than potential conflict between the TRIPS Agreement and the Biodiversity Convention, it was interesting to observe that in the context of biotechnology, genetically-modified organisms might have an adverse impact on eco-systems and affect biodiversity. In order to prevent this, bio-safety had been developed. This was an area in which it was necessary to establish agreed minimum standards to maintain competitiveness and to prevent the deregulation processes from giving undue advantage to certain countries' bio-safety industries.

48. The representative of Australia said that WT/CTE/W/8 identified key environmental concerns regarding IPRs and the Biodiversity Convention's objectives of conservation, sustainable use and equity; public concern had been expressed that the TRIPS Agreement could hinder the pursuit of these objectives. However, it had been suggested also that IPRs could contribute positively to the Biodiversity Convention's objectives; further work was needed to identify this contribution. Individual countries and intergovernmental fora were examining IPR-related issues with respect to environmental considerations. The Committee should address public uncertainties as to the TRIPS Agreement's environmental implications. The analysis in WT/CTE/W/8

suggested that three issues, in particular, deserved consideration. First, there was the issue of the promotion of appropriate environmentally-sound technologies through technological innovation and access to and widespread use of such technologies. WT/CTE/W/8 outlined how the TRIPS Agreement sought to balance the objectives of promoting technological innovation and facilitating access to and transfer of technology and how a well developed IPR system could provide a role for the private sector in this regard. At the same time, nothing in the TRIPS Agreement prevented governments or international financial mechanisms from providing financial assistance to promote technology transfer.

49. Second, there was the issue of the treatment of technology that might have adverse environmental affects. WT/CTE/W/8 noted that the TRIPS Agreement did not affect governments' right to restrict research, development or use of technology necessary to protect the environment. Article 27.2 enabled a Member to exclude from patentability inventions whose use seriously prejudiced the environment. Third, there was the issue of the relationship between the TRIPS Agreement and incentives for the conservation, development and use of biological resources in a sustainable and equitable manner. This included a recognition of indigenous peoples and local communities' contribution to the Biodiversity Convention's objectives on equity grounds and in view of their role in conserving and making available genetic plant resources.

50. Recognition of the contribution of local and indigenous communities for the conservation and use of biological resources was being considered at the national level and in other international fora, including the Biodiversity Convention; the possible role of IPRs was one of the mechanisms being studied. In some cases, the minimum IPR standards required by the TRIPS Agreement might assist in protecting the knowledge and practices of local and indigenous communities and the TRIPS Agreement did not preclude the development of new forms of protection adapted to their particular circumstances. He inquired as to whether IPR regimes adequately catered to the knowledge and practices of local and indigenous communities, particularly given that much of it was not new, was collectively owned and would not meet protection conditions set out in existing IPR regimes.

51. Fundamentally, there was the question of what contribution IPRs, in comparison to other mechanisms, could make to addressing local and indigenous communities' concerns relating to their knowledge and practices. Even if IPR regimes were strengthened, most local and indigenous communities might not have the human and financial resources to go through the often slow and lengthy process of applying for IPR protection and, as such, commercial enterprises could be better placed to take advantage of any potential gains. The interests of indigenous and local communities in their traditional knowledge and practices covered a wide range of issues and was not restricted to those raised in the Biodiversity Convention. In this respect, Article 27.3(b) of the TRIPS Agreement had particular environmental relevance, including biodiversity conservation, and local and indigenous communities' issues; the Committee's discussion of its implications would encourage informed debate on the relationship between the TRIPS Agreement and the environment and sustainable development.

52. The representative of Switzerland recalled the Committee's mandate, bearing in mind that the WTO did not have a role in environmental standard-setting and that any interpretation of the Biodiversity Convention would be determined by its Conference of the Parties. Moreover, any amendment or interpretation of the TRIPS Agreement was the Ministerial Conference and the General Council's exclusive competence. One conclusion which could be drawn from the analysis in WT/CTE/W/8 was that the TRIPS Agreement did not create an obstacle to environmental protection; it contributed to environmental protection by providing incentives for the generation of new technologies. Adequate and effective IPR protection would create a climate of confidence

and facilitate effective technology transfer. The TRIPS Agreement contained provisions which allowed countries to establish a balance between the interests of producers and users of technological knowledge in their national laws. Although Article 27 of the TRIPS Agreement was the only provision which referred explicitly to the environment, others could be relevant, such as those concerning patents, protection of undisclosed information and control of anti-competitive practices in contractual licences. Also, Articles 7 and 8 related to the promotion of environmentally-sound technology.

53. Concerning the relationship between the TRIPS Agreement and the Biodiversity Convention, her delegation considered that there was *a priori* no conflict between their provisions as the TRIPS Agreement permitted Members to carry out national policies in favour of sustainable development and to take adequate measures in conformity with both Agreements. Concerning further work on this item, her delegations would reflect on the suggestions which had been made by other delegations.

54. The representative of Norway said that the Committee's work should address the possible links between the TRIPS Agreement and the Biodiversity Convention with regard to protection and transfer of technology, access to genetic resources and related inventions subject to IPRs. The TRIPS Agreement covered all main IPRs, such as copyright, trademarks, industrial designs, and patents. Although environmental concerns were hardly mentioned in the TRIPS Agreement and were addressed in relation to technology, access to patenting might influence conservation strategies and the Biodiversity Convention's implementation. The Biodiversity Convention stressed the importance of conservation and sustainable use of genetic resources and the fair and equitable benefit sharing of their use between developing and developed countries of their use. The TRIPS Agreement emphasized the need to promote technological innovation, transfer and dissemination; its preamble committed Members "to reduce distortions and impediments to international trade, taking into account the need to promote effective and adequate IPR protection and to ensure that measures and procedures to enforce IPRs do not themselves become barriers to legitimate trade."

55. The Biodiversity Convention affirmed that biodiversity conservation was a "common concern of mankind", but stressed that states had sovereign rights over their biological resources and were responsible for biodiversity conservation and sustainable use. According to Article 15.4 and 15.5 of the Biodiversity Convention, access to a Party's genetic resources was on mutually agreed terms and on the basis of the prior informed consent of the Party providing the resources. The difference between the two legal instruments was that while the Biodiversity Convention stressed that sharing and use of genetic resources should take place on mutually-agreed terms, the TRIPS Agreement was built on GATT/WTO principles of MFN and national treatment.

56. His delegation considered that the Committee should analyse the linkages between the Biodiversity Convention and the TRIPS Agreement, concentrating on an evaluation of whether the TRIPS Agreement's exemption clause provided states with a legal basis for including environmental concerns. This related to the Biodiversity Convention's implementation and its interpretation of the TRIPS Agreement as provided in Article 16.5 of the Biodiversity Convention, which required that international IPR systems, such as the TRIPS Agreement, support its objectives. Another element for a discussion of the legal aspects of implementation of the TRIPS Agreement and the Biodiversity Convention lay in the relationship between MFN and national treatment to terms of access to genetic resources and IPRs. When relevant, the scientific community's contribution should be sought to facilitate the Committee's work.

57. The representative of Mexico said that WT/CTE/W/8 was a useful reference for the Committee's discussion on this item. Her delegation recognized and shared the environmental concerns expressed by several delegations concerning biodiversity conservation, particularly concerning genetic resources, as well as the rights of local communities. Such concerns should be given serious consideration in the appropriate fora. She considered that this item should be dealt with cautiously in order not to exceed the WTO's competence or the Committee's terms of reference. The Committee should avoid any interpretation of relevant MEAs, such as the Biodiversity Convention, and should examine whether the TRIPS Agreement's provisions were in conflict with those of other agreements and if there were possible areas of cooperation between the WTO and other relevant fora. Her delegation's preliminary analysis was that there was no clear conflict as yet. She supported the suggestions of the delegations of Argentina and Brazil concerning potential areas of cooperation between the WTO and relevant intergovernmental organizations.

58. The representative of the European Communities said that as this item was being examined for the first time, his delegation had not yet developed a clear position. He considered that the Committee's discussion on the TRIPS Agreement and the environment risked being theoretical as the TRIPS Agreement had come into force on 1 January 1995 and, according to Article 65, "no Member should be obliged to apply the provisions of the Agreement before the expiry of a general period of one year following the date of entry into force of the WTO Agreement." Lengthier transitional periods were foreseen for developing countries and for economies in transition. Therefore, the TRIPS Agreement had not yet been tested nor its linkages with environmental protection explored.

59. The Biodiversity Convention, which was the MEA which had the most linkages to the TRIPS Agreement, had come into force at the end of 1993 and had not been fully implemented. At this stage, one might have the impression that the Committee would be second-guessing potential environmental problems originating form the TRIPS Agreement's operation, including its relationship with MEAs. As a general principle, his delegation considered that when environmental protection and sustainable development necessitated access to and transfer of technology, this would be compatible with effective IPR protection, which was a prerequisite for the development of environmentally-sound technologies. Regarding the TRIPS Agreement, in his delegation's view some of its provisions took into account environmental concerns, which provided it with flexibility. Article 27 allowed Members to exclude, in certain cases, technologies from patentability and mentioned explicitly the environment. Other provisions could be interpreted to accommodate environmental concerns to a certain extent.

60. The relationship between the TRIPS Agreement and certain MEAs deserved attention to ensure that they were mutually supportive and effectively implemented. In this context, the Biodiversity Convention called for IPRs to support its objectives and established general obligations for cooperation in this regard. His delegation suggested that effective cooperation be established between the WTO Secretariat and other international bodies, such as the Biodiversity Convention's Secretariat, as analysis and case studies would benefit from their respective expertise. This could be done in a preliminary manner before the Biodiversity Convention's second meeting of the Conference of the Parties in November 1995. His delegation considered that there was no inherent contradiction between effective IPR protection and the pursuit of appropriate environmental policies and the Committee could examine this issue in a non-divisive and non-confrontational manner.

61. The representative of the United States said that the Biodiversity Convention and the TRIPS Agreement were complementary multilateral agreements with no direct overlap in subject

matter and with no inconsistencies or conflicts between their obligations or objectives. The TRIPS Agreement addressed minimum IPR standards, focusing on specific rights associated with different IPR regimes. The Biodiversity Convention addressed the conservation and sustainable use of genetic resources and set as an objective the equitable sharing of benefits of commercialization or other uses of genetic resources. The Biodiversity Convention addressed IPRs indirectly and identified technology transfer as one form of benefit sharing Parties should promote. It did not address specific aspects of IPR systems or the particular characteristics of IPRs, but provided that mechanisms used to promote technology transfer should recognize and be consistent with adequate and effective IPR protection, which was the standard demanded by the TRIPS Agreement.

62. As the TRIPS Agreement recognized, effectively functioning IPR systems promoted innovation and technology transfer. Effective IPR systems would do so by providing an incentive for Members to create the technology that would serve as the vehicle for subsequent efforts to share their associated benefits. This assertion was based on the recognition that technology had to exist before its transfer could be promoted or the benefits associated with its commercialization shared. As the TRIPS Agreement's principal objective was to encourage innovation by ensuring adequate protection for the innovator, domestic systems based at least on the TRIPS Agreement's standards would promote the Biodiversity Convention's objective to promote technology transfer related to commercialization and use of genetic resources.

63. Her delegation referred to features of effectively functioning IPR systems that promoted innovation and technology transfer. Effective IPR systems promoted open research and early disclosure of research results; for example, effective patent protection allowed a company or research group to publish freely once patent protection had been sought. Patents themselves served as a source of publicly accessible information on inventions and advances in technology. Effective IPR systems promoted joint ventures and open dealings between entities seeking to use or commercialize genetic resources and entities, organizations or governments seeking to benefit from their use or commercialization. Effective IPR systems promoted domestic innovation and localization of technology to address domestic needs. IPR protection acted to encourage innovation and the availability of protection would stimulate investment in research directed at solving problems of the domestic market. Effective IPR systems promoted parity in treatment of domestic and foreign innovators, regardless of their status or origin. It was crucial to recognize that IPRs were available without regard to the identity of the Party seeking protection and meant that the Party did not have to be a corporate researcher to obtain IPR protection. Effective IPR systems helped ensure that domestic market conditions were receptive to foreign investment, research and development. The Committee should take into account that extensive work had taken place in various fora on these topics and this should not be duplicated. Her delegation suggested that ways be considered to benefit from private sector and other NGO input. The TRIPS Agreement and the Biodiversity Convention were new instruments and there was no experience with their effects, given that they were in the process of being implemented and the Committee should not prematurely determine the effects of these two treaties without the benefit of their operation.

64. The representative of Canada said that it was not his delegation's intention to enter into a substantive discussion of this item at this time. He hoped that there would be a future such opportunity given that a number of the issues raised by other delegations merited further consideration.

65. The representative of Colombia referred to the Committee's mandate contained in the Ministerial Decision and said that the Committee's work should centre on the harmonization of the

TRIPS Agreement and IPR-related MEAs, in particular the Biodiversity Agreement, as well as the various guidelines set out in Agenda 21 of UNCED. His delegation considered that the TRIPS Agreement was not incompatible with these agreements, however a study should be conducted to identify the possible areas where the TRIPS Agreements did not reflect exactly the specific provisions included in relevant MEAs, for example, patentability and technology transfer.

66. Regarding patentability, the TRIPS Agreements did not refer specifically to traditional technologies and their resulting IPRs, nor to the equitable distribution of rights. His delegation shared the concerns expressed by the delegation of India which had illustrated the impact of the TRIPS Agreement on biodiversity. There were not only economic but political implications in this regard. Regarding technology transfer, Article 7 of the TRIPS Agreement offered IPR protection to promote technological innovation, transfer and dissemination. It could be considered that the access of developing countries to technology transfer was facilitated by respecting their IPRs, under the most favourable terms, including preferential and concessional terms, in keeping with Agenda 21 and the Biodiversity Convention.

67. The representative of Japan said that his delegation considered that the TRIPS Agreement did not pose any contradictions between effective IPR protection and the development of environmentally-sound technologies. At the implementation level, cooperation between developed and developing countries was the key for the expansion of environmentally-sound technology and furthering IPR-related trade. From this perspective, his delegation had an open mind concerning the appeal of developing countries to participate in a cooperative spirit. He expressed concern with regard to some delegation's previous comments on further work. At this stage, a cautious approach was required concerning any interpretation of MEAs; the Committee was not the appropriate forum to make judgements on the technical provisions of MEAs.

68. The representative of Venezuela said that since this was the Committee's first discussion of the TRIPS Agreement and the environment, the scope of the analysis should be defined. The main focus of the discussion should be the relationship between the TRIPS Agreement and the Biodiversity Convention, which was linked to discussions under item one, concerning MEAs. As the global implications of item one were an obstacle to a detailed analysis, his delegation considered that item eight was the appropriate setting for an examination of these issues, while recognizing that any analysis could not interpret the Biodiversity Convention.

69. He recalled the principle, which had been accepted at UNCED, that environmental and trade policies should be mutually supportive; the relationship between the TRIPS Agreement and the Biodiversity Convention should confirm this principle. There was concern that the development of IPRs under the TRIPS Agreement, specifically with regard to the commercializations of biodiversity and genetic resources might be pursued to the detriment of the Biodiversity Convention's objectives. The Biodiversity Convention contained provisions which gave it a special status with regard to developing countries' positions in the debate on the environment, especially since it recognized the right of indigenous and local communities to maintain practices and knowledge relevant to the aim of preserving biodiversity, as well as need for the equitable sharing of the benefits arising from the utilization of their knowledge, practices and innovations. It also contained provisions which recognized the importance of transferring and facilitating access to technologies, which would serve to foster conservation and the sustainable use of biodiversity, including through financial mechanisms.

70. Without interpreting the Biodiversity Convention and recognizing its scope, consideration should be given to whether preserving biodiversity was compatible with the TRIPS Agreement. In this respect, Article 22 of the Biodiversity Convention provided that the Convention would take

precedence over other international instruments when the latter were incompatible with preserving biodiversity. This could be considered under item one, but a more in-depth examination would be possible under item eight. As had been noted by previous delegations, another problem concerned patenting of life forms, which appeared to be envisaged in the TRIPS Agreement. The TRIPS Agreement and the Biodiversity Convention were too recent to judge whether IPR protection had adverse environmental effects on genetic diversity and on the development of competitive genetic resources in developing countries. A further issue could be the patentability of genetic sequences contained in DNA fibres. This was a field in which rapid strides were being made, for example in the United States, where laboratories and firms specializing in genetics were accelerating their efforts to identify genes contained in DNA fibres. He asked whether different WTO rules would apply to discoveries patented without having made an additional contribution concerning the applicability of the genes identified and the patent was not recognized or granted in other countries. In the absence of agreement by the patent owner or the applicant for a patent, he inquired as to whether Article 31 of the TRIPS Agreement on compulsory licensing or Article 27 on restricting patentability granted entitlement to refuse such a licence based on the Biodiversity Convention. His delegation considered that answers to these questions were partially outside the Committee's competence, since they were matters for the Biodiversity Convention's Parties to consider.

71. Article 27 of the TRIPs Agreement stipulated that what constituted patentable subject matter should be reviewed within four years. Taking this into account, the Committee could consider the compatibility of the TRIPS Agreement with the Biodiversity Convention's objectives and strengthen cooperation between the two by promoting the complementarity of their objectives. The review could take into account the TRIPS Agreement's accommodation of the Biodiversity Convention's provisions; the latter aimed at securing for developing countries a more equitable sharing of the benefits from the commercial exploitation of genetic resources originating in their territories and from traditional technologies. An evaluation of the TRIPS Agreement's implementation of technology transfer would be useful in order to consider their possible recasting in light of the above-mentioned factors.

72. The representative of Hong Kong said that his delegation would reflect on the interventions which had been made. At some stage, it would be useful to have an indication of the trade impact of the issues discussed with respect to the access to and distribution of benefits of biotechnology, covered in Article 16 and 19 of the Biodiversity Convention; paragraphs 77 and 78 of WT/CTE/W/8 said that these issues had not been fully addressed in the TRIPS Agreement. He said that it would be useful to know how these aspects related to the magnitude of the trade involved. Such an analysis could shed light on the direction of the Committee's further work.

73. The representative of Morocco considered that the TRIPS Agreement was compatible with the Biodiversity Convention yet cooperation between these two agreements was vital in order to ascertain this. Article 27 of the TRIPS Agreement allowed Members to exclude certain inventions from patentability in order to avoid serious prejudice to the environment. He commented that the Biodiversity Convention's provisions would be interpreted by its Conference of the Parties in the same manner as the TRIPS Agreement would be interpreted by WTO Members.

74. The Chairman said that this had been an initial overview of the relevant issues which were relevant to the Committee's work under this item of its work programme. A number of issues had been highlighted by delegations, which could be used to further discussions under this item, most of them related to the linkages between the TRIPS Agreement and the Biodiversity Convention. To a great extent, discussions had focused on the compatibility and complementarity of these two Agreements, specifically with regard to issues relating to technology transfer;

patentability; facilitation of access to environmentally-sound technology; and the knowledge of traditional and local communities. Mention had been made of the possible contribution of other intergovernmental organizations where an on-going debate on this issue was being conducted, including the Biodiversity Convention's Conference of the Parties, as well as contributions from the scientific community and non-governmental organizations. Reference had been made to the need for the Committee to remain within its terms of reference and within WTO competence, particularly in view of the recent approval of both the TRIPS Agreement and the Biodiversity Convention.

Item nine of the work programme: Services

75. The representative of Brazil commented that the discussion of services in the context of the Committee's mandate required a new perspective on new rules. As noted in WT/CTE/W/9, the environmental issues in the services area were linked to the negotiation of the General Agreement on Trade in Services (GATS) with respect to the exceptions provided for in Article XIV. In order to address whether Article XIV was sufficient, there would have to be an initial analysis of whether there were any problems with which the present disciplines could not cope, such as had been carried out for Article XX of GATT 1994 in the goods area.

76. He recalled that the Committee should not discuss environmental policy, although it was a necessary point of reference. Also, it should not discuss the environmental effects of service industries or the environmental measures needed to address any problems which might be identified. Rather, it should identify, with the help of the Secretariat, the environmental measures which were applied by governments in the services area due to internal decisions or international agreements; whether these measures had an impact on services trade; and whether they conflicted with any WTO disciplines. With respect to measures taken pursuant to MEAs, WT/CTE/W/9 was a point of departure for an examination of the issues. The basic questions were similar to those which had been raised in the goods area, although the manner in which they would be approached might be different as the GATS had fewer disciplines than the GATT which were generally applicable, many of which had been established on a sectoral basis or in the schedules of concessions and there might be variations in the mode of service supply. Also, some of the GATS disciplines, such as subsidies and government procurement, had yet to be decided. Thus, it would be necessary to examine whether any particular GATS perspective would have to be injected in the general discussion on MEAs under item one.

77. The representative of Korea gave his delegation's preliminary observations on this item, since it was being discussed for the first time and it was closely interlinked with other items. He agreed that the approach described in paragraphs 20 and 31 of WT/CTE/W/9 was the manner in which to examine the adequacy of Article XIV(b) to address environmental concerns. First, to identify trade restrictive measures for environmental purposes in the area of services; second, to consider whether such measures could be justified by GATS provisions other than Article XIV; and third, to examine whether Article XIV(b) was an adequate basis upon which to address environmental concerns. Following this approach, the starting point was an examination of measures which restricted services trade and had only to be justified by the exception clause. Given that it was difficult to find examples of measures for the first and second stages of the approach, the Committee's discussions might not progress significantly if the problems were only of minor or theoretical importance. Therefore, he inquired as to what the appropriate measures, if any, could be for possible work.

78. The complementarity of services with other products and different modes of service supply needed to be taken into account when considering the adequacy of GATS Article XIV(b) for environmental concerns. Since Article XIV(b) had general textual similarities with Article XX(b) of GATT 1994, discussion on the sufficiency of Article XX(b) would benefit those under this item. He suggested that discussions on item one should be monitored, while attempts were made to identify examples of relevant measures. Bearing in mind that no conflicts had been posed between MEAs and GATS and the GATS was still an evolving framework, the Committee could focus on identifying trade restrictive measures in services trade.

79. The representative of Australia said that the Committee's examination of the relevance of intergovernmental agreements on the environment to services trade and their relationship to the GATS should consider discussions under item one, related to MEAs. Also, item six provided an opportunity to explore the contribution which the liberalization of trade in services might make to a more efficient use of resources to promote sustainable development. Paragraph 20 of WT/CTE/W/9 outlined three questions that should guide the Committee's deliberations in examining the relationship between GATS provisions and the environment: determining which measures were needed for environmental purposes in the services area; whether such measures were inconsistent with any GATS provision; and whether Article XIV was an adequate basis for taking such measures. The Committee should consider all GATS Articles relevant to making trade and environment policies mutually supportive and identify that the scope of Articles VI and VII provided for environmental protection related to services trade, so as not to have to resort to the exceptions provisions of Article XIV. Article VI recognized that countries regulated services trade through domestic regulatory measures, including qualification requirements and procedures, technical standards and licensing requirements. In sectors where specific commitments were undertaken, Members were required to ensure that all measures of general application affecting services trade were administered in a reasonable, objective and impartial manner. Thus, Article VI would allow Members to institute and enforce measures regarding the environmental impact of services production and imports, regardless of whether they had made specific commitments in relevant services.

80. Article VI:4 provided for the Council for Trade in Services to establish a work programme to examine what disciplines might be necessary to ensure that qualification requirements, technical standards and licensing did not become unnecessary barriers to services trade. These results might have implications for the treatment of services trade and the environment, although the basic right of governments to regulate would remain. Article VI also raised issues that might be relevant to the relationship between the GATS and relevant MEAs. For example, VI:5(b) provided that account should be taken of international standards applied by Members in relation to GATS obligations in services sectors where commitments had been undertaken. MEAs might be relevant to Article VII, which provided that, where appropriate, recognition of the education or experience obtained, requirements met, or licenses or certification granted in other countries should be based on multilaterally agreed criteria. Members were encouraged to work towards the adoption of common international standards for recognition, and standards for the practice of relevant services trades. Article VII could be used to recognize, in addition to bilateral arrangements, the licensing and certification requirements established by international agreements. The major requirement that Article VII would impose was that all WTO Members should be afforded adequate opportunity to demonstrate that they met the recognition criteria.

81. The representative of Chile referred to the effort which was being made to compare GATS Article XIV and Article XX of GATT 1994 in order to highlight environmental protection. He referred to paragraphs 58 to 60 of WT/CTE/W/9, concerning MEAs, which outlined the work

of relevant MEAs with respect to services and the environment. The Annex to WT/CTE/W/9, on tourism and sustainable development, illustrated the complexity of the issue in a specific sector. His delegation's view was that the Committee's analysis should focus on two aspects. First, there was the issue of whether the GATS was compatible with relevant MEAs which contained restrictions on services trade, such as the Basel Convention, the London Convention on Dumping and, to a certain extent, the Montreal Protocol. He inquired as to how operational GATS rules were. Second, for environmental services, it would be interesting to analyse the effects of measures mentioned in Article XXVIII (c)(ii), particularly regarding the application of national treatment when the service sector had been liberalized, i.e. service providers were given access to the relevant services essential for their trade operations as provided for in the schedules. The Council on Trade in Services had an important role to play in supervising that measures concerning qualifications, procedures, technical standards and licences did not become barriers to services trade. The general issue which was being discussed concerning MEAs was whether restrictions on service providers derived from MEAs were more acceptable than restrictions established unilaterally in national regulations. His delegation considered that a study should be made of the links between services trade and the environment to further work on this item.

82. The representative of Mexico said that paragraphs 20 and 31 of WT/CTE/W/9 identified the key issues to be discussed under this item, as had been noted by the delegation of Korea. Discussions should revolve around determining which measures were necessary for environmental purposes in the services area; whether such measures were inconsistent with any provision other than GATS Article XIV; and whether Article XIV(b) was an adequate basis for taking such measures. Based on the GATS negotiating history, which was summarized in Section II of WT/CTE/W/9, there was a broad agreement between the negotiators concerning the fact that the protection of human, animal or plant life or health also covered the environment, but there were also concerns regarding the use and *raison d'être* of the general exceptions in Article XIV.

83. Her delegation agreed with others that it was not within the Committee's mandate nor capability to analyse the environmental impact of services trade or its liberalization. Furthermore, this would be difficult given that the GATS was still in the process of being negotiated. The liberalization of certain services trade might have a positive environmental effect, such as in the case of certain environmental services, described in paragraph 12 of WT/CTE/W/9. For example, the liberalization of transborder rail transport might encourage a maximum capacity of cargo, since vehicles would not have to return empty to their point of origin. As noted in WT/CTE/W/9, nothing in the GATS restricted the capacity of any Member to provide market access conditions which were more liberal than those contained in their schedules, in order to benefit from possible positive effects. Consequently, it might be concluded that modification to the GATS provisions was not necessary in order to maximize such positive potential aspects. The implications of the possible use of subsidies would need to be examined. However, it was not evident that the Committee should become involved in this discussion, as negotiations had not yet been concluded.

84. Concerning potential negative environmental effects of services trade, her delegation considered that since services were intangible they could not be polluting. Paragraph 21 of WT/CTE/W/9 noted that there might be cases where such effects might exist, such as when the service was complemented by the use of goods. These cases could be included under paragraph 12(c) of WT/CTE/W/9, which presented a list of services in relation to their degree of complementarity with a good. However, here again it was not the service or the trade in the service which was responsible for the impact, but the goods themselves. The WTO already had a number of provisions which ensured that Members could take measures necessary for environmental protection in their territory as it concerned trade in goods. In particular,

Articles III and XX, and certain of the TBT Agreement's provisions. Any clarification which might be considered necessary with respect to the latter might be made in the Committee's discussions on items one, three and seven. She cited the case of rail transport to illustrate the measures needed for environmental proposes in the area of services. Since the polluter was the vehicle and not the service, measures should affect emissions and the vehicle's characteristics. This was possible in the context of the TBT Agreement's technical rules. Nothing in the GATS prevented Members from applying their national legislation with regard to this type of provision, to the extent that they abided by national treatment and MFN provisions. If the objective was environmental protection, measures to control emissions should be applied equally to national and foreign vehicles, on a non-discriminatory basis. Thus, there would be no need to resort to Article XIV. Her delegation was unable to find examples of measures necessary for environmental proposes in the area of services which were inconsistent with the GATS provisions, in particular, the principles of national treatment and MFN. WT/CTE/W/9 suggested that there might be cases in which a Member could consider a measure necessary if the environmental impact of the service was transborder. Her delegation was not convinced that the goods used and not the service were responsible for the pollution. In any event, the questions which resulted from such an assumption were being discussed under item one and her delegation considered that this discussion should be continued in that context.

85. The representative of Argentina recalled the Committee's two tasks which had been mandated by the Ministerial Decision. His delegation agreed with the delegations of Korea and Mexico that it would be appropriate to deal with any modifications to Article XIV after progress had been made with respect to Article XX of GATT 1994, which had been the model used for drafting GATS Article XIV. Given the relationship between these two Articles, it would be logical to draw some conclusions from the results of discussions under item one, which would facilitate the task of determining whether any modifications were required for GATS Article XIV. As such, his delegation considered that it would be necessary to avoid parallel discussions on the same issues when analysing Article XIV of GATS.

86. With respect to the relevance of MEAs and their relationship to the GATS, it might be possible also to make progress independently of item one. He considered that the first stage would be to request the Secretariat to further identify possible interlinkages between relevant MEAs and the GATS.

87. The representative of Malaysia, on behalf of the ASEAN countries, considered that environmental policies and the development process could co-exist and environment protection and services trade could be mutually reinforcing. In his delegation's view, these objectives could be achieved without modifying the GATS. The problem was that conflicts could arise between liberalizing trade and environmental policies. One country's environmental policy or standard could be considered as a trade restriction to an exporting country. The resolution of these concerns did not involve a new GATS provision, as sufficient provision was already available in the current GATS, as well in other WTO Agreements.

88. The GATS negotiating history confirmed that measures necessary to protect human, animal and plant life or health were understood to include measures necessary to protect the environment, provided such measures were applied in a non discriminatory manner. His delegation considered that, for the present, there was no need to provide for anything more than that contained in Article XIV(b). He recalled that the scope of Article XIV(b), which allowed a suspension of commitments, meant that Members would need to pass the "necessity test" and did not give *carte blanche* to suspend commitments. Members would need to examine the measures before permitting their justification to protect plant, human and animal life and health.

89. Governments had the right and responsibility to devise measures to internalize environmental costs in the production of a good or service, including imposing production taxes on environmentally-harmful products, such as removing or reducing subsidies on pesticides or fertilizers that had harmful effects; giving financial incentives to environmentally-friendly activities; or, where there were spillover effects, imposing quantitative limits on environmentally-harmful activities. Governments had a right to use these under WTO Agreements and under the GATS Articles VI and XVI. Thus, without invoking Article XIV(b), which could be invoked only after a Member had justified that domestic market access commitments had had a negative environmental impact which necessitated a suspension of commitments, a government could impose conditions on the cross-border consumption and production of services in their territory. Placing reservations and limitations on market access *ex-ante* and *a priori* would forewarn the service supplier of importing market conditions. It would not do any good to the service supplier if, once in the market, Article XIV(b) was invoked, thereby nullifying and impairing its expected benefits, even if it had been justified under Article XIV(b).

90. The representative of the European Communities said that the absence of common rules and disciplines for services trade, similar to the GATT for goods, had made it difficult to acknowledge or address the relationship between services trade and the environment. This situation had changed with the entry into force of the GATS. His delegation considered that the positive relationship between the liberalization of services trade, ensured by the GATS, and the environment should not be neglected. Environmental services, such as pollution clean-up and landscape protection, were of increasing economic importance; recent OECD figures valued global environmental services at $200 billion. As such, liberalization of services trade resulting from the GATS would permit a more efficient provision of environmental services with potential environmental benefit.

91. He referred to the Committee's mandate and said that, in examining the relationship of services trade and the environment, two alternative approaches could be followed, depending on whether or not this issue was considered to be a priority. If it was an item worth exploring as a result of the stocktaking exercise and given the issue's novelty, the Committee's mandate could be considered as a narrow one. The GATS contained several provisions other than Article XIV which might have interlinkages with the environment; all of them contained, to an extent, references that could be supplementary or complementary to the work foreseen by the Ministerial Decision. If the Committee followed a broader perspective, a common approach should be developed to examine how services could be provided, i.e. different modes of supply, and their respective, and sectoral relationship with the environment. The basic parameters for such an analysis were outlined in WT/CTE/W/9. The intrinsic nature of the four different supply modes of services indicated that the direct or indirect influence of services trade on the environment differed between modes and sectors. Even if the service had nothing to do with the environment, the form of supply could be of relevance to it. The Committee's first task could be to conduct an in depth analysis of how different services sectors covered by the GATS were supplied and the relationship between the supply and the environment, focusing on positive and negative influences. One determining factor would be the involvement or usage of goods. For example, most business services involving the provision of advice, i.e. lawyers, architects, or consultants, did not use any good, if supplied across the border, and it was difficult to argue that a relationship existed with the environment. However, if the supply of a service involved or facilitated the use of a good or the establishment of a physical presence, i.e. an office or a factory, the relationship with the environment was more apparent; the origin of this relationship would have to be determined. He asked whether it would be the good or the service, or a combination of both, which determined the criteria which established the environmental link. The Committee could give particular

attention to the involvement of goods as this would determine, to an extent, which multilateral trade provisions were relevant, i.e. the GATS and/or GATT 1994.

92. If the Committee considered that this issue was not a priority, due to its mandate's limited scope, analysis could focus on the opportunity to modify Article XIV(b). As such, the Committee's mandate might be interpreted as setting different categories of interpretation for GATS Article XIV and Article XX of GATT 1994. The Ministerial Decision on Trade and Environment did not mention specifically the possible modification of Article XX. However, discussions on the interlinkages between trade in goods and the environment had led to discussing its modification. The route thus far in trade in goods was that through a collective interpretation of Article XX, environmental concerns could be accommodated, to a great extent, in the WTO. The focus on the GATS Article XIV could set the tone on a different level and raised the issue as to whether it should be included in Article XIV. This could indicate that there was scope for discussion of the GATS Article XIV independent from that on Article XX of GATT 1994. His delegation did not have preconceived ideas as to the Committee's final results. As such, there might be a general consensus to modify Article XX, therefore considering the idea of a collective interpretation as insufficient to ensure the positive interaction of trade and environment. However, his delegation considered that it was not advisable to develop the discussion on services trade and the environment on a separate track from that on trade in goods. When examining the case for a modification of Article XIV, consideration should be given to the experience acquired in the field of goods, since much of it was applicable to services, while at the same time taking into account each field's specificities.

93. The representative of Norway said that the relationship between the environment and services was multifaceted and complicated and the manner in which the Committee started work on this issue was important. As a starting point, the Committee should consider whether the GATS Article XIV provided an adequate basis for measures necessary to protect the environment. It should be clarified whether Article XIV was sufficient or whether there was a need to include environmental concerns in other GATS Articles. One possibility would be to combine the two alternatives, whereby environmental concerns could be integrated in Article XIV and other relevant parts of the GATS. This was what had been done concerning goods and was his delegation's preferred approach to deal with services in accordance with the Committee's horizontal mandate.

94. In order to determine whether environmental concerns were sufficiently covered by the GATS, more background information was needed, including an analysis of sectors covered by the GATS. Then, it would be necessary to evaluate which areas required new provisions to deal with environmental concerns. In order for the Committee's mandate to be fulfilled, complementary studies should be considered, for example on the application of trade measures to deal with problems arising from trade in transport services and their relation to the GATS. Information was needed where environmental effects were directly linked to services trade, particularly in the transport sector, which UNEP was in the process of analysing. Negative environmental effects of trade liberalization could emerge from transportation when the movement of goods and services expanded without environmental safeguards. It was important to identify and implement environmental measures to deal with this nationally and internationally.

95. A study of environmental problems resulting from tourism could be warranted to consider the need to integrate further provisions in the GATS. Another area which could be examined was subsidies, given that, as stated in CTE/WT/W/9, the GATS did not have any disciplines on subsidies in the area of services. This implied that the GATS did not include provisions for using subsidies, i.e. as a positive means to promote environmentally-sound policies. A pertinent

question was whether provisions parallel to Article 8(c) in the Subsidies Agreement, concerning non-actionable subsidies, should be included in the GATS. According to the Council for Trade in Services' decision of 30 March 1995, a Working Group on Subsidies and Government Procurement had been established to develop multilateral rules with respect to these services. The Committee would have to consider what role it could play in this process; Members, on an individual basis, could ensure that environmental concerns were taken into account in this Working Group. His delegation's preference would be for the Committee to give the Working Group its recommendations indicating where new environmental provisions were necessary.

96. Services trade often implied the use of complementary products and the environmental problems which arose from their use should be covered by the WTO. It should be clarified whether such concerns were to be covered by the GATS or by Agreements in the goods area, as well as how to establish the environmental link in this respect. He raised the question of whether the general environmental consequences of the liberalization of financial services should be examined, if increased capital mobility would lead to changes in production and consumption patterns, which in turn might have environmental effects. Concerning MEAs which were relevant to the GATS, his delegation considered that results in the services area should correspond to the solutions identified in the area of goods. As had been suggested by several delegations, the Committee should arrive at substantial conclusions under item one at an early stage in order to facilitate work under other items.

97. The representative of Switzerland said that services trade could have an adverse environmental impact, for example from transport pollution. As such, the possibility to suspend the GATS obligations necessary to protect human, animal or plant life or health was required. In this respect, GATS Article XIV(b) had been negotiated as an analogue to Article XX(b) of GATT 1994. Concerning the potential environmental impact of services trade and the appropriate measures needed for environmental protection, she asked whether Article XIV(b) was sufficient. One of the characteristics of services which needed to be analysed was the fact that some services, such as tourism, required production in the territory where they were sold and consumed. Thus, a specific regulation of the trade-environment problem might be justified and even required for services. Her delegation was not certain that a word for word comparative analysis between GATS Article XIV(b) and GATT Article XX(b) was necessary to fulfil the Committee's mandate, even though the analytical work on Article XX(b) under item one should be considered in the analysis of the environmental aspects of services trade.

98. She proposed a three step approach for the Committee's work. The first step could be an analysis of the different services sectors in order to know at what stage of the life-cycle of a service a significant environmental impact occurred. However, it was necessary to determine if the model of life-cycles was applicable to services. Second, after having set up such a typology of service categories and their related impact on trade, different types of trade-related measures needed or applied for environmental protection could be identified. Third, according to the classification of different trade-related measures to be taken in order to mitigate negative environmental impacts of services, the Committee could analyse whether a modification of GATS Article XIV(b) would be required, taking into account the situations which would need to rely on the exception under Article XIV(b); this would be necessary only to justify a breach of a GATS commitment. Also, the analysis of other GATS provisions related to trade and environment was important, such as market access commitments for environmental services. Also, account should be taken of ongoing work in related intergovernmental organizations.

99. The representative of Canada considered that the GATS did not pose a challenge to environmental protection. Although his delegation considered that further analytical work on the

possible environmental impact of services trade would have to be completed before this preliminary conclusion could be fully confirmed. In his delegation's view the Committee's discussions on trade in goods were applicable, to a great extent, to services trade. He noted that there might be an exception for the transport sector, where there might be some environmental impacts. He understood that there were discussions in other fora on these impacts which should be taken into consideration, such as the WTO's negotiating group on maritime services, as well as work within the International Civil Aviation Organization and the International Maritime Organization. He referred to the suggestion of the delegation of the European Community that work on trade and environment in the area of goods might be leading to a collective interpretation of Article XX of GATT 1994. His delegation did not share this view.

100. He agreed that the issues were defined by the questions posed in WT/CTE/W/9, concerning which measures were necessary for environmental purposes in the services area; whether such measures were inconsistent with any provision other than GATS Article XIV, and whether GATS Article XIV(b) was an adequate basis for taking such measures. However, given that certain subject matters, particularly domestic regulation, government procurement and subsidies were the subject of ongoing consideration, these questions might not be addressed fully by the time of the Ministerial Conference in 1996. Thus, his delegation suggested that the Committee's initial work focus on determining which environmental measures were necessary in the services area and the relationship between relevant MEAs and the GATS. In many instances, WT/CTE/W/9 implied that for the provision of a service which involved a complementary good, WTO Agreements other than the GATS applied. He proposed that the Secretariat analyse this aspect further. If this were the case, then this item's scope could be narrowed to a consideration of services trade which did not involve the complementary use of a good.

101. The delegation of the United States considered that this item overlapped with others in the Committee's work programme, such as items one and six. It would be useful to examine the contribution that market access, especially in the area of environmental services, could provide to making trade and environment mutually supportive, increasing the availability of environmental services and technologies and promoting more open trade. Members could go beyond their obligations but, as was the case for goods, the secure climate created by bound obligations encouraged investment and innovation.

102. She said that an important question was how to associate environmental safeguards which might be developed for trade in goods to trade in services, for example by reexamining the adequacy of GATS Article XIV to determine if an additional exception should be included modelled on Article XX(g) of GATT 1994; and by examining the measures related to goods which should also be applied to services. In this respect, the Committee was at a preliminary stage in assessing the possible linkages between Article XX of GATT 1994 exceptions and those in other WTO Agreements. While the work in the goods area might provide useful insight in the services area, her delegation considered that *a priori* assumptions should be avoided which applied results in one area automatically to the other; each should be examined with regard to its specificities. A cautious approach would be to presume that GATS Article XIV included an exception similar to GATT Article XX(g), until experience demonstrated that such an exception was not relevant for services. Her delegation saw merit in a consideration of whether MEAs indicated that particular service sectors needed special environmental measures. Relevant MEAs and their relationship to GATS should be reviewed, keeping in mind WTO expertise. Any consideration of what environmental measures were needed in the services area should be based on information from environmental experts and intergovernmental organizations, for example in the transport sector.

103. She referred to paragraph 33 of WT/CTE/W/9, which addressed production and process methods (PPMs) in services, which could take on a different nature in services than for goods, especially when the services were produced in the importing country by foreign suppliers. In this respect, it might be useful to examine GATS Article VI. There were differing views on the territorial scope of GATT Article XX(b) and (g) and, therefore, also of GATS Article XIV(b) and her delegation did not consider that these provisions were necessarily limited in scope to a Member's jurisdiction, as suggested by paragraphs 27 and 35 of WT/CTE/W/9; her delegation would continue to study the issues identified in WT/CTE/W/9 and comment further later.

104. The representative of Japan recalled the Committee's mandate and said that this item, should be handled with caution as some of the major disciplines of the GATS which would affect the outcome of the Committee's discussions had not been established; subsidies and government procurement would be negotiated by the Services Committee this Autumn. Also, disciplines in the area of qualification requirements, technical standards and licensing in accordance with Article VI:4 were expected in the coming months. As noted in WT/CTE/W9, the complementarity of services with other products existed. Services by nature were not smoke-stack industries and their negative environmental effect would be related mainly to complementary goods. Thus, it would be appropriate to deal with the issues as they concerned goods before examining services trade, which was usually of secondary importance. Considering the similarities in the texts of GATT Article XX and GATS Article XIV, it would be productive to further discussions in the former. GATS Article XIV might be taken up at a later stage when a degree of precedence had been established for GATT Article XX. He also said that it was premature to undertake the proposed sector-based case studies.

105. He responded to the delegation of the European Communities' statement concerning a collective interpretation of GATT Article XX. His delegation supported the delegation of Canada in stating that it could not share the delegation of the European Communities' view in this respect. There was a long way to go for there to be consensus on this issue and it was not a reasonable basis upon which to discuss GATS Article XIV(b). His delegation's suggestion was that the Committee's work should further discussions in the goods area under item one and then decide the scope of the issues in the context of services taking into consideration paragraph 20 of WT/CTE/W/9, which identified an analysis of measures necessary for environmental purposes in the services area, whether such measures were inconsistent with any provision other than GATS Article XIV, and whether GATS Article XIV(b) was an adequate basis for taking such measures. However, he said that the GATS was in its nascent phase and it would be difficult to modify one of its most sensitive Articles.

106. The Chairman said that the discussions had revealed that there were differing and diverse perspectives on the issues and the very nature of what was being discussed. One approach indicated that services trade would not be disruptive to the environment. The other was that consumption models whose evolution could have environmental effects should be analysed in the general context of services trade. There were differing views as to whether complementary goods involved in the provision of services should be included in the Committee's discussions of this item. Also, there were diverging views regarding GATS Article XIV and whether it sufficiently provided for environmental considerations. In addition, there were differences as to whether to examine Article XIV independently from GATT Article XX, which was being discussed under item one of the work programme and whether the Committee should include in its discussion the relationship between the GATS and relevant MEAs. Members should be aware of these divergences which had emerged in the Committee's initial discussion of this item. As a number of delegations mentioned, it was important to keep in mind that the GATS was still in the process of being negotiated.

Item two:

The relationship between environmental policies relevant to trade and environmental measures with significant trade effects and the provisions of the multilateral trading system

107. The representative of the United States said that examples of environmental policies that could be considered under this item included the use of precautionary approaches and environmental subsidies. This item also presented the opportunity to consider how environmental policies, not discussed under other items, could be used to address the environmental effects of trade. Her delegation shared the view of many other delegations that action by WTO Members in their own countries was often the first and principal opportunity to make trade and environment mutually supportive, for example through the appropriate use of environmental reviews and assessments which were a well-established element of environmental policy. The importance of assessing the environmental effects of trade had been recognized at this year's meeting of the U.N. Commission on Sustainable Development, where many Members had joined in encouraging governments to develop or strengthen the assessment of the environmental effects of trade policies and had noted the importance of openness and transparency in these processes. Useful work had been done in the OECD on this issue, particularly on possible methodologies.

108. Several countries had gained experience in undertaking reviews for trade agreements, including her delegation and other WTO Members. Her delegation's experience suggested that these provided information to policymakers by promoting an understanding of positive and negative environmental implications and identifying alternatives and policy interventions. Issues such as the relationship between trade and environmental cost internalization could be analysed in this context. Also, involving the public in an assessment process supported democratic approaches to governance generated new information and ideas and promoted broader support for policy decisions. She invited Members to examine her delegation's reviews which had been made available to the Secretariat and encouraged other Members to supply theirs to the Secretariat to make them more easily available and to promote information sharing. The Committee's consideration of these issues was a step toward bringing environmental policy perspectives into trade policy.

109. She referred to ecolabelling, which fell under item three but also could be discussed under item two. She suggested that since some aspects fell within the context of the TBT Committee, which would be discussing this item at its July meeting, the Committee could revert to this issue at its September meeting after that discussion had taken place.

110. The representative of Switzerland said that the Committee should focus on analysing the relationship between environmental measures and WTO provisions, distinguishing between two aspects. First, there were environmental policies and measures to achieve a specific environmental policy goal directly, of which she distinguished three different categories: economic instruments (such as price-instruments and quantitative instruments); regulatory instruments (command and control instruments); and voluntary approaches (such as moral suasion). Economic instruments, like regulatory instruments, could have trade impacts through price and non-price effects and these effects would depend on the instrument and its design.

111. Second, as countries pursued different environmental policies, they might apply additional specific measures to address international competitiveness problems or to minimize the risk of having the achievement of an environmental policy goal affected by other countries' environmental

policies. These measures were accompanying offset policies or responses to other countries' environmental policies and did not belong to the first category of environmental policies and instruments. From the WTO perspective, not only the trade effect of these measures but also the relationship between GATT/WTO provisions and these additional policies and measures was important, as they might be applied to domestic and imported "like products". Such accompanying offset policies included countervailing duties, border tax adjustment, environmental subsidies, harmonization of environmental policies and bilateral trade/environment agreements. The distinction between environmental policy instruments *per se* and the accompanying offset policies might be important to the Committee's analysis. Both categories of measures might be relevant to trade and have significant trade effects and the relationship to WTO rules was of interest. However, her delegation questioned whether measures under the second category mentioned above, which were not real environmental measures, should be treated under item two.

112. According to the Committee's mandate, specific environmental instruments were the subject of other items, such as item three. Thus, the Committee should limit discussions under item two to some specific environmental policies and instruments and their accompanying offset policies which were not yet treated under other items. Her delegation suggested that the Committee establish a list of all environmental policies and instruments and their accompanying offset policies; identify the policies and instruments which were not yet treated under other items; analyse the trade relevance/potential trade impacts of these policies and instruments; and clarify the relationship between these policies and instruments and GATT/WTO provisions.

113. The use of economic instruments, as complements to regulatory approaches, might be useful as they contributed to environmental goals and promoted innovation in a more efficient way than regulations. Economic instruments had different trade impacts; many categories of economic instruments existed, such as property right measures; market creation measures (tradeable emission permits); fiscal instruments (emission taxes); financial instruments (financial subsidies, soft loans); liability systems; and bond and deposit refund systems. Economic instruments such as taxes and charges, had a price effect on the related product and might have an impact on the competitiveness of these products, depending on the amount of the taxes and how they were designed. The application of other economic instruments such as tradeable emission permit systems and deposit refund systems impacted on market access rather than price and might be an obstacle for foreign suppliers. The way that governments applied economic instruments to domestic as well as imported products would define their compatibility with GATT/WTO rules. As such they should be designed and implemented in accordance with the principles and rules of the multilateral trading system such as national treatment and non-discrimination to avoid unnecessary trade barriers. She considered that a structured analysis would be necessary in order to define the trade significance of these instruments and their relationship to GATT/WTO provisions and proposed starting with an analysis of tradeable emission permits.

114. The representative of Norway said that item two should cover issues that were not adequately covered under other items. In order to make trade and environment policies mutually supportive, the multilateral trading system should be designed to accommodate environmental concerns while ensuring that protectionism disguised as trade measures for environmental purposes was avoided. Relevant GATT/WTO provisions should be reviewed in the light of recognized environmental principles and objectives to see whether any modifications would be required. This review should include, *inter alia*, considerations of whether the existing rules permitted a wide range of environmental policy instruments and whether they prevented the internalization of environmental costs, as well as contributed to the emergence of non-sustainable production and consumption patterns.

115. Although his delegation had doubts as to whether some of the subjects should be addressed under item two or whether they were adequately covered under other items, it suggested focusing on subsidies, border tax adjustment, and tariff escalation. Concerning the Agreement on Subsidies and Countervailing Measures, a review could be carried out in light of the Framework Convention on Climate Change's objectives. One important question was whether the current trade rules encouraged subsidization of environmentally-harmful products with respect to energy use, and, consequently, should the subsidies Agreement be modified. The Committee would have to clarify whether all questions relevant to subsidies should be dealt with under item 3(a). Border tax adjustment provisions were relevant to the Committee's work, including footnote 61 to the Subsidies Agreement. In addition, the effects of tariff escalation on natural resource use, transport, etc. would need further analysis and might be an element under item six, concerning market access. The Committee could examine whether a discussion of "like products" would be required under item two, which would depend on the solutions arrived at under item one, such as how to deal with the PPM issue. Much work had been done on item one and it would facilitate work under item two, if conclusions could be reached at an early stage.

116. The representative of Australia said that this item raised issues which were being considered under other items, including items three, four and six. Item two offered an opportunity to consider additional issues to reflect key principles in the relationship between the WTO and environmental policies. He recalled Agenda 21 principles which stated that environmental policies should deal with the root causes of environmental degradation and not create unnecessary trade restrictions. There was a need to determine where the use of trade measures for environmental objectives might be appropriate to achieve the best environmental outcome. Appropriate environmental policymaking could contribute to promoting a strong multilateral trading system and avoiding protectionist trade measures or unjustifiable trade discrimination. Under item six, the contribution which trade liberalization could make to the implementation of sound environmental policies would be examined, as well as the role of complementary environmental policies in ensuring that trade reform contributed to sustainable development. WT/CTE/W/1 highlighted the contribution which trade reform might make to ensure fair and ecologically-sustainable returns for commodity producers, to encourage diversification and lessen dependence on natural-resource intensive industries, and to promote internalization of environmental costs. Trade reform should be accompanied by complementary domestic environmental policies

117. Many environmental measures were not directly relevant to WTO provisions. For example, GATT/WTO provisions did not limit a country's right to use non-product related regulations or taxes to address environmentally-damaging behaviour in its own jurisdiction, such as polluting activity by domestic producers. These provisions covered only regulations and taxes which applied to products. The disciplines imposed on the use of product-related regulations and taxes were limited in intent and were designed to ensure, through applying the principle of non-discrimination, that they did not adversely affect the competitive position of imported products. An issue for further exploration was the contribution which non-discrimination could make to promoting mutually supportive trade and environment policies, including measures to address domestic environmental objectives, i.e. how to apply non-discrimination while ensuring that countries could implement domestic environmental policies appropriate for their social, political, economic and environmental preferences. In this respect, an examination of the TBT Agreement's relevance to environmental policymaking could be addressed under item three. While the TBT Agreement encouraged the use of international standards, it recognized that there were environmental reasons why national standards could differ. The TBT Agreement's transparency provisions and the Code of Good Practice on the Preparation, Adoption and Application of Standards could contribute to sound environmental policymaking and minimize

adverse trade effects. Another area where WTO provisions and environmental policy objectives could intersect was in relation to the reform of policies responsible for environmental degradation. In many cases, such as trade distorting assistance to agriculture in major industrialized countries, trade and environmental concerns were similar and strengthening WTO rules supported sustainable development and complemented environmental policies.

118. The representative of Venezuela said that item two covered a broad spectrum of issues which were the subject of examination under other items of the agenda, particularly item three. As suggested by the delegations of the United States, Australia and Switzerland, this item could examine topics which were not the subject of discussion under other items. His delegation agreed with the delegation of Australia that some broad subjects could be considered, such as the implementation of trade measures based on environmental considerations and their relationship with the principle of non-discrimination; or the question of the extrajurisdictional implementation of environmental measures, rules and standards; or the implementation of PPM based measures and how they related to WTO standards. As suggested by the delegations of Switzerland and the United States, consideration could be given to certain economic policy instruments. In this context, he mentioned that such measures which were being analysed in UNCTAD through national studies on the linkages between environmental and trade policies in developing countries, to determine the applicability of economic instruments for developing countries. He said that the Secretariat could rely on UNCTAD's experience in this field. He responded to the delegation of Switzerland's statement concerning the possibility of analysing countervailing duties by emphasizing that any reference to countervailing duties in connection with the environment was a reference to "ecological dumping." He said that reopening questions of this nature would complicate the Committee's discussions. This had been discussed at UNCTAD in connection with the question of competitiveness and it had been acknowledged that there was evidence to support the contention that differences in the level of environmental requirements and standards between countries were not a relevant factor in industrial relocation.

119. The representative of Argentina considered that, since this item was broad, it encompassed areas which were covered under other items, such as items three and six. For this reason, it was appropriate to focus on those issues which had not been dealt with and he supported the delegation of Switzerland's proposal on how to identify them. An examination of the environmental measures with trade effects which could not be dealt with under item six could analyse those subsidies which encouraged producers to adopt environmentally-sustainable practices; these subsidies were not directly related to production, but had an impact on the cost structure and producers' income. Without claiming to prejudge the analysis under this item, he suggested focusing initially on an analysis of the Subsidies Agreement. As was generally acknowledged, these subsidies were to be of general application and were without time limits, unlike other standards which had resulted from the Uruguay Round and were of limited application such as in the Agriculture Agreement. The Committee might wish to consider a more specific analysis of the latter at a subsequent stage.

120. In the Subsidies Agreement, the possibility to grant subsidies for new environmental requirements was limited to cases described under Article 8.2(c). Article 8.2(c) provided for one-time, non-recurring measures which met specified conditions with the sole purpose of promoting the adaptation of existing facilities to new environmental requirements imposed by law and/or regulations. However, as provided in Article 8.3, their *ex ante* notification was required with sufficient precision in order to have the right to claim them as a subsidy under Article 8.2(c). He stressed that the Subsidies Agreement limited the nature of this type of subsidy, and financial contribution which did not fulfil the conditions listed therein could not be considered non-actionable. Such subsidies were to serve exclusively to promote the adaptation of existing

facilities to new environmental requirements imposed through law and/or regulations; they could not be used to promote adaptations to environmental standards which were voluntary, for example in order to gain access to voluntary ecolabels. In his delegation's view this question fell under item 3(b), which dealt with voluntary ecolabelling schemes and which was a delicate matter, as voluntary ecolabels might entail new trade barriers. Article 8.2 of the Subsidies Agreement was precise concerning the necessary terms of compliance and, thus, ecolabelling schemes had no right to be subsidized in this regard.

121. The representative of New Zealand said that, while this item was potentially broad, his delegation considered that the trade effects of environmental subsidies should be considered as had been suggested by the delegation of Argentina. He noted that Article 8.2(c) of the Subsidies Agreement and Annex 2.12 of the Agriculture Agreement exempted certain environmental subsidy programmes from the more general disciplines on subsides.

122. The representative of the European Communities said that item two did not refer to specific environmental measures, but to their relationship to WTO provisions. The task, therefore, was to identify issues which deserved attention, while avoiding replicating discussions under other items. In order to perform this task, two approaches could be followed. A first approach could be to examine whether there were specific environmental measures other than those covered under item three which were relevant to trade, including environmental taxes, product requirements, labelling, packaging and recycling requirements. Another approach would be to determine whether there were general categories of environmental measures, such as PPM-related measures, which deserved attention. His delegation's preliminary conclusion was that environmental measures of interest were being addressed already under other items, in particular under items one and three.

123. PPM-related measures raised concerns vis-à-vis the multilateral trading system, especially when they addressed environmental problems. As agreed in Principle 12 of Agenda 21, environmental measures to address transboundary and global challenges should not be determined unilaterally, as far as possible, but should be based on international consensus. The relationship between the multilateral trading system and trade measures, including PPM-based trade measures, taken in the context of MEAs was being discussed under item one. Also, PPMs were relevant for life-cycle analysis in certain ecolabelling programmes, which was being addressed under item three. Another more general issue which might be raised in connection with PPM-related requirements was their impact on international competitiveness. However, it did not seem that the Committee should give it further consideration. His delegation shared the general consensus which had emerged that "green" countervailing duties on imported products to offset additional costs incurred by domestic companies because of more stringent PPM-related environmental requirements was not an appropriate response to these concerns and should be rejected. This had been a conclusion reached by UNCTAD's *Ad Hoc* Working Group on trade, environment and development at its second session. His delegation did not consider that there was a need to examine PPM-related measures under item two. Nevertheless, his delegation was aware that other delegations might not share this view and it was open to suggestions as to how to proceed.

124. He responded to suggestions made by some delegations that subsidies should be examined under item two. Given that the wording of item 2 referred to environmental policies and measures, there was no scope for examining subsidies in general and the only category of subsidies which could be analysed were subsidies for environmental purposes. Although environmental subsidies and the disciplines to which they were subject under the Subsidies Agreement might deserve further attention, his delegation was not convinced that the issue of environmental subsidies should be re-opened at this point.

125. The Chairman said that there were differing perspectives as to how to proceed on this item. Some delegations were of the view that all aspects of this item were covered under other items, while others had suggested a detailed programme of analysis in order to encompass under this item a number of issues which were considered not to have been adequately considered. As such, further discussion was needed to bring about a convergence of views.

Other items

Item four of the work programme:

> The provisions of the multilateral trading system with respect to the transparency of trade measures used for environmental purposes and environmental measures and requirements which have significant trade effects

126. The representative of Canada reiterated his delegation's proposal which had been made at the Committee's last meeting, whereby it had proposed a joint session of the Committee and the TBT Agreement to pursue a consensus that ecolabelling programmes were covered by the TBT Agreement's Code of Good Practise. While it recognized that some delegations might not be ready to pursue such discussions, his delegation wanted to secure agreement that the issue would be addressed in the near future. His delegation was flexible on timing, but considered that this was an issue that needed to be pursued. In the meantime, he requested the Secretariat to prepare a background document on the TBT Agreement, which would address the negotiating history of the Tokyo Round and Uruguay Round, particularly the parts relevant to ecolabelling programmes and the scope for non-product related PPMs.

127. The representative of the United States said that the proposal by the delegation of Canada was that there be a joint body created to focus on the TBT Agreement's interpretation and the manner in which it applied to ecolabelling. His delegation did not consider that the Committee's role was to interpret WTO rules, but rather to explore their adequacy. While it recognized that it was essential to know the base line from which it was working in order to have an effective discussion, his delegation's view was the appropriate place to have discussions on the TBT Agreement's interpretation would be in the TBT Committee. Perhaps, the TBT Committee could take up this issue in order to assist the Committee's discussions. If there were broader ambitions for the proposed joint informal meeting, his delegation would be interested in learning precisely what was being proposed. His delegation had no difficulty with the Secretariat preparing a background document on the TBT Agreement's negotiating history, including background on the general issue of the coverage of labelling.

128. The representatives of Nigeria, Venezuela, and Japan supported the delegation of Canada's proposal. The representative of Nigeria considered that a joint meeting between the Committee and the TBT Committee would be important to highlight and clarify ecolabelling programmes and the question of non-product related PPMs. A Secretariat background document would provide an institutional memory for Members which had not been present when the TBT Agreement had been negotiated. The representative of Venezuela said that he had not understood that the Canadian proposal at the last meeting was that a joint meeting between the Committee and the TBT Committee would discuss non-product related PPMs; this was a delicate issue and it would have to be decided whether the Committee should cover it.

129. The Chairman noted that he had raised the possibility of having a joint meeting between the Committee and the TBT Committee with the TBT Committee's Chairperson and he would consult further in this regard.

130. The Committee agreed that the Secretariat should prepare a background document on the history and scope of the TBT Agreement's negotiation, including the Tokyo Round and the Uruguay Round negotiations, which would cover ecolabelling and non-product related PPMs.

Item ten:

> Arrangements for relations with intergovernmental and non-governmental organizations referred to in Article V of the WTO

131. The Committee agreed to continue to extend observer status to those intergovernmental organizations (IGOs) which had had observer status at the Committee's previous meetings, pending the approval of criteria and conditions for observer status for IGOs in the WTO.

132. It was agreed that the Chairman would consult informally in order to take a decision at the next Committee meeting on the request by the International Organization for Standardization (ISO) to be invited to attend the Committee meetings as an observer. It was noted that ISO was involved in the establishment of environmental management standards which might be relevant to the Committee's work programme and that ISO had been invited to make a presentation on the development of ISO 14000 at the next TBT Committee meeting on 14 July.

133. The Chairman recalled that the WTO General Council had been meeting at the level of heads of delegations, and consultations were ongoing to examine which provisions to adopt concerning relations with non-governmental organizations. It was agreed to postpone discussions on this item until these consultations had been concluded.

Schedule of meetings

134. It was agreed that the Committee's meetings in Autumn would be held on 12-13 September and 26-27 October. At the September meeting items six and seven of the work programme would be taken up. For discussion under item six, the Secretariat had prepared a paper on the "Environmental benefits of removing trade restrictions and distortion" which had been circulated as WT/CTE/W/1, February 1995. For discussion of item seven, the Secretariat had prepared a background paper on the history of the issue of exports of domestically prohibited goods (DPGs) in GATT and on recent developments within and outside of GATT/WTO, contained in PC/SCTE/W7, December 1994. In addition, the Secretariat had prepared a paper which provided up-to-date information on the membership, product coverage and operational procedures of the 12 international and plurilateral agreements and instruments which dealt with trade in DPGs and other hazardous substances, contained in WT/CTE/W/6, March 1995. The Chairman recalled that delegations could return to any items that had been discussed at this meeting at the end of discussions of the items of focus at the next meeting in September.

135. It was agreed that, in order to prepare for a stocktaking of the Committee's work and consider the agenda for the remainder of the period before the Ministerial meeting, the Chairman would hold informal meetings between the September and October meetings. The Chairman recalled that, at the Committee's February meeting, it had been agreed that a stocktaking exercise would be held at the October meeting after the Committee had completed its first run through of its work programme, in order for the Committee to note areas of consensus and those where further work was needed.

136. The Chairman said that he would address the issue of the translation of documentation, which had been raised by the delegations of Venezuela and Morocco, with the Chairman of the General Council and report back to the Committee.