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ACTIVITIES OF THE TRANSNATIONAL CORPORATIONS AND MANAGEMENT DIVISION AND ITS JOINT UNITS

Follow-up to the United Nations Conference on Environment and Development as related to transnational corporations

Report of the Secretary-General

SUMMARY

In endorsing Agenda 21, the General Assembly has agreed on more principles and instructions regarding transnational corporations than are set out in any other United Nations text. In that context, the process of the United Nations Conference on Environment and Development has accomplished its goal of charting the course of change to a more sustainable future and assigning duties and responsibilities to all actors involved, including transnational corporations. The task at hand is to maintain the momentum and involvement of individual corporations in global environment issues and design specific projects and programmes to successfully implement the activities recommended in Agenda 21.

* E/C.10/1993/1.

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INTRODUCTION

1. In June 1992, at Rio de Janeiro, the United Nations Conference on Environment and Development (UNCED) brought together more than 30,000 participants representing 150 Governments (80 at the level of head of State or Government), more than 5,000 non-governmental organizations and more than 10,000 accredited journalists. The Conference was the culmination of a 30-month-long process of preparations at the governmental and non-governmental levels, involving hundreds of background documents and weeks of intense negotiations on the principles of sustainable development.

2. The Conference adopted a declaration on the basic principles of sustainable development 1/ and agreed on non-legally binding forestry principles. 2/ The Convention on Biological Diversity and the United Nations Framework Convention on Climate Change 3/ were opened for signature at the Conference. Perhaps of most importance for future work on sustainable development, however, was the approval of an 800-page action plan to continue the momentum started in the preparatory process: Agenda 21. 4/ Agenda 21 expresses the international community's action-oriented recommendations for future work on sustainable development, covering subjects ranging from improvements in the economic and social areas to the protection of environmental components, the role of non-governmental groups in sustainable development, and organizational and institutional matters related to the implementation of Agenda 21.

3. The results of UNCED, especially the implementation of Agenda 21, may have profound implications for the business community in the post-Rio decades. Negotiations before UNCED took place unveiled a considerable willingness in the business community to contribute to sustainable development and suggested new modalities for cooperation on issues related to business and the environment. Despite the difficulties in negotiating broad international corporate environmental policy principles, progress was made in formulating principles covering environmental management, with several specific references to transnational corporations. These recommendations will provide a valuable framework for future work on transnational corporations and the environment.

4. The present report summarizes the discussions on business and industry that took place during the preparatory process leading to UNCED, including the contributions made to the process by industry, non-governmental organizations and international organizations. Section II provides an overview of emerging positive trends in the role of transnational corporations in environment and development. The implications of agreements reached at the Conference for transnational corporations, and business in general, are discussed in section III. Section IV contains suggestions on how the Commission on Transnational Corporations can organize future work on transnational corporations and the environment in order to maintain and broaden the momentum gained during the UNCED process regarding the corporate role in sustainable development.

I. BUSINESS AND THE UNCED PROCESS

5. The central role of business and industry in sustainable development was acknowledged as early as 1987 in the report of the World Commission on Environment and Development, Our Common Future. 5/ By resolution 44/228 of 22 December 1989, the United Nations General Assembly, having recalled its resolution 42/187 on the report of the World Commission, decided to convene the United Nations Conference on Environment and Development (UNCED). The Assembly recognized the potential of transnational corporations in sustainable development: in paragraph 10 of resolution 44/228, it stressed that large industrial enterprises, including transnational corporations, were frequently the repositories of scarce technical skills for the preservation and enhancement of the environment, that they conducted activities in sectors that had an impact on the environment and, to that extent, had specific responsibilities and that, in that context, efforts needed to be encouraged and mobilized to protect and enhance the environment in all countries.

A. Contribution of the business community

6. Representatives of the business community were active throughout the UNCED preparatory process, reflecting a growing corporate environmental awareness. 6/ Their participation in the preparations was multifaceted, involving a broad array of highly visible activities.

7. Following the first session of the Preparatory Committee for the United Nations Conference on Environment and Development, the Secretary-General of the Conference established the post of Senior Industry Adviser. The role of the Senior Industry Adviser was to counsel the Secretary-General on business and industry matters and to stimulate the interest and involvement of the international business community in UNCED. The Senior Industry Adviser subsequently formed the Business Council for Sustainable Development (BCSD) in 1990, which became one of the most influential business initiatives in the UNCED process.

8. BCSD arranged several conferences and meetings and prepared the report Changing Course: A Global Business Perspective on Development and the Environment. 7/ This report presents the BCSD vision on sustainable development, along with examples of current innovative sustainable development practices of individual transnational corporations. Its central message is that open markets are the best way to pursue sustainable development objectives but that prices on goods and services in the market place should increasingly reflect and recognize environmental costs. According to the report, this requires reform of economic instruments and regulatory standards as well as voluntary initiatives by the private sector. BCSD also drafted a declaration outlining the basic principles for sustainable development and for cooperation among corporations and between the corporate community and regulators. Among other things, the declaration stated that "the world is moving toward deregulation, private initiatives, and global markets. This requires corporations to assume more social, economic, and environmental responsibility in defining their roles", and that "sustainability demands that we pay attention to the entire life-cycles of our products and to the specific and changing needs of our consumers".

9. The International Chamber of Commerce (ICC) was another business organization highly active in the UNCED preparations. 8/ In 1990, ICC coordinated industry involvement in the Bergen regional conference on sustainable development. 9/ In April 1991, in cooperation with the United Nations Environment Programme (UNEP) and the secretariat of UNCED and with support from the United Nations Economic Commission for Europe (ECE), ICC organized the Second World Industry Conference on Environmental Management (WICEM II) in Rotterdam, the Netherlands. The Conference (which held four preparatory regional meetings, in New Delhi, Budapest, Cairo and Rio de Janeiro) focused specifically on the challenges for world business in the context of UNCED.

10. At WICEM II, ICC formally launched the Business Charter for Sustainable Development, which consists of 16 principles for environmental management. The Charter urges subscribers to recognize environmental management among the highest corporate priorities and as a key determinant of sustainable development; to apply the same environmental criteria internationally; to encourage adoption of the principles of the Charter by suppliers; to develop and provide products that are efficient in their consumption of natural resources and that can be recycled, reused and disposed of safely; to apply a precautionary approach; to foster openness and dialogue with employees and the public, anticipating and responding to their concerns about potential hazards and impacts, including those of transboundary or global significance; and to conduct regular audits and disclose information to the public.

11. Also at WICEM II, the International Environmental Bureau (IEB) 10/ was given the mandate to help implement the initiatives taken by ICC, in particular the Business Charter for Sustainable Development. IEB organized a three-day industry environment management conference in Rio de Janeiro in May 1992, prior to UNCED.

12. In the autumn of 1989, a working group on environmental management under the United States Business Round Table, an independent organization composed of more than 200 chief executive officers from the United States, formed the Global Environmental Management Initiative (GEMI). GEMI was established as part of the United States Council for International Business, the United States national committee for ICC. The purpose of GEMI was to respond to the growing interest in global environmental management and to the many new initiatives in the field, such as the Valdez Principles (see para. 16) and the Responsible Care programme (see para. 14) by defining concrete management systems to implement industrial guideline principles, and by providing leadership in corporate environmental management.

13. GEMI started projects to identify the communication needs of corporate stakeholders; to collaborate with UNEP, IEB and the German Environmental Management Association (BAUM); to create a worldwide network of organizations seeking to implement the Business Charter for Sustainable Development; and to sponsor Total Quality Management activities.

14. There are also a number of national environmental business initiatives with international impacts. Among these are the Responsible Care programme of the Canadian Chemical Manufacturers Association (CCMA) and the United States Chemical Manufacturers Association (CMA); and the Global Environmental Charter

of the Japanese business association, Keidanren. 11/ The latter was presented in April 1992 amidst a mood of growing environmental concern in Japan. This Charter, supported by more than 4,000 Japanese corporations, presents guidelines on a variety of topics, including the establishment of corporate policies on environmental matters; appointment of environmental officers and establishment of a framework within which to manage environmental affairs; formulation of environmental regulations and mechanisms for internal inspection; reduction of environmental load; and the establishment of in-house standards.

15. The Charter contains a section entitled "Environmental guidelines for Japanese enterprises operating abroad", which is of particular importance to transnational corporations: companies members of Keidanren are encouraged to make environmental protection a priority at overseas sites; to apply Japanese standards concerning the management of harmful substances; and to actively work to implement effective and rational measures to conserve energy and other resources, even when such environmental problems have not been fully elucidated by science.

B. Contribution of non-governmental organizations

16. In an effort to change corporate attitudes to environmental problems and increase corporations' environmental responsibility, the Boston-based Coalition for Environmentally Responsible Economics (CERES) drew up an environmental code of conduct consisting of 10 points, in 1989. Formulated in the wake of the Exxon-Valdez oil spill, the Valdez Principles 12/ outlined principles for the protection of natural resources, wise use of energy, public disclosure of operations potentially harmful to the environment or employee and public safety, and compensation for those damaged by environmental pollution. Consisting of environmental action organizations and groups representing more than 10 million people and \$150 billion in invested assets, CERES in 1990 initiated resolutions in 56 major United States corporations demanding that they adopt the 10 points. Matched by similar "green" investor initiatives in Europe, the Valdez Principles open an interesting new avenue for non-governmental organizations to encourage the integration of environmental concerns in corporate decision-making.

17. In January 1992, the National Wildlife Foundation convened a Conference on Building the Sustainable Corporation. Top business leaders, governmental officials and environmentalists from Europe, North America and the Pacific Rim gathered to discuss the practical implications of sustainable development for corporate strategy, policy and leadership. The Conference was unique in addressing the issue of corporate sustainable development directly. In preparation of this event, a research team at New York University's Stern School of Business reviewed the available literature on sustainable development and progressive business management. The team concluded that the concept of sustainable development was still embryonic, generally discussed and written about in broad conceptual, rather abstract, macro level and fuzzy ways. 13/

18. Several other non-governmental groups, unaffiliated with the business community, took an active part in the UNCED discussions on business and industry. Those non-governmental organizations from developing countries, such as the Third World Network, campaigned for the international community to address issues related to transnational corporations more directly.

Non-governmental organizations in general and developing country non-governmental organizations in particular were increasingly active during the UNCED preparations, especially at the fourth session of the Preparatory Committee, held in New York in April 1992.

19. A number of non-governmental organizations were critical of Governments for not addressing the responsibility of transnational corporations in environmental degradation and for not assigning transnational corporations an important role in moving towards sustainable development. In the course of the Preparatory Committee session, the term "Green Wash" was used repeatedly by non-governmental organizations, referring to what these non-governmental organizations considered the new environmental "appearance" of transnational corporations. At the end of the fourth session, a large group of non-governmental organizations adopted a statement that listed 10 points not adequately covered by UNCED. These non-governmental organizations felt that UNCED should have called for strong national and international regulation of transnational corporations rather than accept self-regulation. In addition, a number of articles highly critical of the handling by the Preparatory Committee of issues related to transnational corporations appeared in the non-governmental press, and in a debate broadcast on the Public Broadcasting System, non-governmental organizations assailed UNCED on the subject of transnational corporations.

20. Non-governmental organizations also held a conference parallel to UNCED in Rio de Janeiro: the Global Forum. The Global Forum drafted and adopted a treaty entitled "Democratic regulation of TNC conduct", which outlined the basic responsibilities for corporations/transnational corporations, as well as the basic principles for future non-governmental cooperation on this issue. It was stated in the treaty that non-governmental organizations around the world should create networks to monitor the conduct of transnational corporations and launch campaigns on specific transnational corporations and their products. It was also noted in the treaty that UNCED had abdicated its responsibilities to take measures to control the activities of transnational corporations and that the United Nations had given up trying to develop a code of conduct for transnational corporations and the Centre on Transnational Corporations had been weakened.

C. Contribution of international organizations

21. International organizations and bodies whose work involves business aspects of development have also been active in the UNCED process as well as in supporting the development of voluntary international environmental guidelines and standards, often with the cooperation of the industry. Among such organizations and bodies are the Organisation for Economic Cooperation and Development (OECD), UNEP, ECE, the International Labour Organization (ILO), the United Nations Industrial Development Organization (UNIDO) and the former United Nations Centre on Transnational Corporations and its successor, the Transnational Corporations and Management Division of the Department of Economic and Social Development (UNCTC/TCMD).

22. OECD was one of the first international organizations to engage in work on environment and industry. It adopted the "polluter pays principle" in 1972 and prepared the Guidelines for Multinational Enterprises in 1976. The brief

section on environmental matters contained in the Guidelines was revised in 1986 to include an expanded annex on environmental principles in the context of transnational corporations. Recently, OECD prepared a series of guiding principles for accident prevention, including a separate chapter on the responsibilities of OECD investors in non-OECD countries as a contribution to the UNCED process. 14/

23. In 1986, following various chemical accidents, the UNEP Industry and Environment Office in Paris prepared a series of measures to help Governments reduce the occurrence and harmful effects of technological accidents and emergencies. One of these measures was the APELL programme to enable Governments, in cooperation with industry, to deal with those accidents. This programme provides national Governments, local authorities and plant managers guidance on building greater awareness of hazardous installations in the local community and on preparing well-coordinated emergency plans. Other organizations, such as ILO, have also developed environmental conventions and guidelines. 15/

24. As part of its contribution to the UNCED process, UNIDO held a ministerial-level Conference on Ecologically Sustainable Industrial Development in October 1991. Participants included States members of UNIDO, as well as intergovernmental organizations, industry and non-governmental organizations. The Conference adopted a series of recommendations for industry, Governments and international organizations, which stated that corporations should adhere to codes of conduct, including voluntary codes; adopt a cradle-to-grave approach; and provide information on environmentally sound management and energy conservation. Moreover, the Conference reaffirmed the importance of transnational corporations in sustainable development and stated that these corporations should implement and apply general standards of environmental responsibility to their foreign operations which were fully consistent with those used in their home countries. 16/

25. Over the past six years, well before the decision to convene UNCED, the Commission on Transnational Corporations and the Economic and Social Council have encouraged the Secretariat to work with transnational corporations in developing an awareness of sustainable development, to probe for information on the current state of practices of leading firms and to formulate policy recommendation in this new and expanding area. In 1989, at the request of the Commission on Transnational Corporations, UNCTC/TCMD prepared a series of criteria for sustainable development management, 17/ which were one of the first initiatives in establishing transsectoral guidelines for environmental management of corporations. By developing the criteria, UNCTC/TCMD inspired and set the stage for subsequent efforts to establish international non-binding environmental standards for environmental management.

26. In response to other requests from the Economic and Social Council, 18/ UNCTC/TCMD developed a set of recommendations on the tasks and responsibilities of transnational corporations, Governments and international organizations in sustainable development, which were made available to the Preparatory Committee for UNCED as recommendations of the Executive Director (E/C.10/1992/2). The recommendations synthesized a wide range of existing intergovernmental resolutions, conventions and declarations, corporate policy statements and practices, trade association guidelines and guidance from expert advisers in

business, academia, Governments and non-governmental organizations. The specific recommendations were grouped under five key programme areas: global corporate environmental management; risk and hazard minimization; environmentally sounder consumption patterns; full-cost environmental accounting; and environmental conventions, standards and guidelines. A brochure with individual corporate examples in these areas was prepared for UNCED.

27. As part of the preparations for drafting the recommendations, UNCTC/TCMD conducted a Benchmark Corporate Environmental Survey. 19/ The Benchmark Survey is one of the most comprehensive studies on corporate environmental management, and the only study with a clear developing country and sustainable development focus. UNCTC/TCMD also prepared a report on options to facilitate transfer of environmentally sound technologies to developing countries under favourable terms and presented preliminary results to the Preparatory Committee at its third session. The report analysed the effectiveness of 15 different options that focused on new global revenue-raising mechanisms and tax and tariff measures, as well as investment and market measures that can reduce the barriers to transfers of environmentally sound technologies to developing countries. 20/

28. In response to the request of the Commission on Transnational Corporations, UNCTC/TCMD prepared, for the Preparatory Committee for UNCED at its third session, information on prototype financial statements that would enable corporations to report their net income on a sustainable basis. 21/ Furthermore, for the past 15 years UNCTC/TCMD has been involved in work on developing and coordinating international accounting and reporting standards through the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR). At its tenth session (5-13 March 1992), ISAR decided to transmit its conclusions on environmental reporting to the Secretary-General of UNCED. The Group concluded that despite a high awareness in transnational corporations and a willingness to disclose environmental information, much of this information was qualitative and descriptive and there was no consistent pattern of disclosure. It also made a series of recommendations, for Agenda 21, on areas that should be disclosed in a corporate environmental report. 22/

D. Participation of individual transnational corporations in the UNCED process

29. In the aftermath of UNCED, in order to assess the nature and form of participation of individual corporations in the preparations and immediate follow-up to UNCED, the Transnational Corporations and Management Division created a database of corporate participants and the major corporate activities in this period. According to the database, 997 individual firms participated in one or more of the following activities: memberships in the Business Council for Sustainable Development, 23/ the ICC International Environmental Bureau, 24/ or Global Environmental Management Initiative; 25/ signatory of the ICC Business Charter for Sustainable Development; 26/ participant in the second ICC/UNEP World Industry Conference on Environmental Management (Rotterdam, May 1991), 27/ the UNIDO Conference on Ecologically Sustainable Industrial Development (Copenhagen, October 1991), 28/ the ICC Industry Forum on Environment and Development (Rio de Janeiro, May 1992) 29/ or the Confederation of British Industry/ICC Conference (London, October 1992); 30/ or as respondents to the

UNCTC/TCMD Benchmark Corporate Environmental Survey. For each of these events or activities, transnational corporations took a significant positive decision to allocate staff time and resources to complete a lengthy questionnaire, to attend an international business conference or to endorse a specific policy statement. Overall, participation by nearly 1,000 (70 per cent of which were transnational corporations) firms in the UNCED process indicates a wide commitment to undertake a serious process of change towards sustainable development within the corporate community. However, additional efforts still need to be made to involve the other more than 34,000 transnational corporations 31/ that are significant investors in the international economy.

30. About 45 companies were extremely active in the UNCED process; they participated in four or more of the activities listed above. Most firms (794), however, participated in only one activity. These numbers indicate that while there is a breadth of participation in the corporate community, a limited number of firms are key actors expressing the views of the international corporate environmental community.

31. There is a considerable variation per activity in the geographical distribution of the home countries of the participating enterprises (see annex II, table 1). The membership of the Business Council for Sustainable Development and the respondents to the UNCTC/TCMD Benchmark Corporate Environmental Survey drew an equal number of firms from all major regions. In fact the BCSD had a balanced distribution from all major home country regions while maintaining a near 30 per cent participation rate from developing countries. Eighty per cent of the developing country-based firms which signed the ICC Business Charter for Sustainable Development are based in three countries: Chile, Indonesia and Mexico. The ICC Business Charter for Sustainable Development, as well as the ICC/UNEP Second World Industry Conference on Environmental Management and the ICC Industry Forum in Rio de Janeiro drew relatively more heavily on European-based enterprises.

32. As noted above, a significant number of firms participated in only one activity (see annex II, table 2). Over 70 per cent of the signatories of the ICC Business Charter for Sustainable Development took part in no other pre-UNCED event. Nearly 50 per cent of the membership of BCSD concentrated entirely on activities within the Council. Nearly 70 per cent of the respondents to the Benchmark Corporate Environmental Survey replied to UNCTC/TCMD only during the preparatory process. This high rate of involvement in only one activity may well explain some of the differences in the policy recommendations emanating from the three organizations.

33. One might have expected that there would be a high overlap of firms active in the major activities and events. However a good 50 per cent of the membership of BCSD have not signed the ICC Business Charter for Sustainable Development. Some 60 per cent of the participants in the ICC Industry Forum in Rio de Janeiro have not signed the ICC Business Charter. Only 20 per cent of the members of BCSD took part in the ICC Industry Forum. Over the years there is likely to be greater consistency in corporate participation in international events. At the moment, a decision of involvement in a particular event may require considerable internal discussion. As more events are sponsored in the coming years, and as policies of individual enterprises become more settled,

decisions in favour of greater and consistent participation in international events can be expected.

34. In line with the pledges for public disclosure and participation in the work of the United Nations by ICC and BCSD, it is positive to note that as many as 6 out of 12 members of BCSD and 46 per cent of the targeted ICC Business Charter for Sustainable Development signatories responded to the UNCTC/TCMD Benchmark Survey. The Benchmark Survey had an overall response rate of 20 per cent.

II. EMERGING TRENDS IN THE FIELD OF TRANSNATIONAL CORPORATIONS AND SUSTAINABLE DEVELOPMENT

35. UNCED coincided with four trends in the field of business/industry and environmental protection: (1) the growing role of transnational corporations in economic development and environmental protection; (2) the expansion of corporate environment, health and safety management; (3) the thrust towards international coordination and harmonization of environmental regulation of transnational corporations; and (4) the emergence of a highly viable and dynamic policy area of non-binding/voluntary guidelines for corporations.

A. The growing role of transnational corporations in sustainable development

36. At the core of the sustainable development concept is the interface between environment and development. Transnational corporations, which are one of the main components in economic development and one of the agents that can significantly influence the state of the environment, clearly play a critical role in sustainable development. The importance of transnational corporations in sustainable development stems from their unique management structure; their vast corporate networks and technological resources; and the international consequences of their decision-making. Transnational corporations invest more than \$225 billion each year outside their home country and 95 per cent of these investments come from industrialized countries. 31/ Seventy per cent of world trade is controlled by transnational corporations, and 90 per cent of all technology and product patents worldwide are held by transnational corporations. 32/ There is every reason to believe that the role of transnational corporations in the world economy will increase in the coming years. As more nations pursue growth and development objectives through market reform and liberalization of the foreign direct investment (FDI) regimes, transnational corporations will increasingly become engines of capital formation, human resource development, technology transfer and the exchange of goods and services. 32/

37. The impact of the activity of transnational corporations on the environment is extensive: a UNCTC/TCMD study on climate change 33/ estimated that more than 50 per cent of global greenhouse gas emissions were in the province of transnational corporations. The bulk of biotechnological research worldwide is financed by transnational corporations, and these corporations are extensively involved in natural resource exploitation activities such as oil-drilling, mining and forestry. Among the sectors that now need further attention is, for

example, the financial services sector which, through loans for new investments, has wide-reaching consequences for the economies and the environment of developing and transitional countries. Yet banks and other investors have only recently begun to develop guidelines for environmental sustainability of environmental investments and loans.

38. The growing role of transnational corporations as engines of growth has led to the re-emergence of public concern about the impact of these corporations on the environment. As regional trade agreements take centre stage in the world economy, the environmental role of transnational corporations is attracting increasing public interest and political controversy. For example, environmental protection was one of the most difficult parts of the negotiations for the North American Free Trade Agreement (NAFTA). The environment question in NAFTA negotiations forged unlikely alliances of concern, such as those between environmental non-governmental organizations and United States and Canadian businesses, regarding the level of possible incompatibilities between the United States, Canadian and Mexican environmental regulations and requirements from businesses.

B. Expansion of corporate environmental management practices

39. As the role of transnational corporations in the global economy grows and as public concern over their environmental conduct increases, effective management of their activities becomes increasingly important. Recent years have seen at least two complementary trends in the management of transnational corporations: corporations have been expanding their environment health and safety measures; and Governments in international organizations and business organizations are expanding regulations and guidelines affecting transnational corporations. The present section deals with the former trend, while the following two sections deal with the latter.

40. Overall, companies now spend an average of 1.1 to 2 per cent of total sales and often over 25 per cent of their net income on environmental expenditures. In the case of the United States car industry, some experts estimate the expenditure is up to 65 per cent of net income. ^{34/} Increasingly, corporations engage in major environmental undertakings, often going beyond regulatory requirements and involving substantial investments by the corporation. For example, in 1989 Texaco Inc. supported its environmental policies by investing some \$354 million in air, water and solid waste pollution abatement. Bayer AG announced that 20 per cent of its manufacturing costs is spent on environmental protection. In a search for alternatives to chlorofluorocarbons (CFCs), Du Pont, the largest manufacturer of CFCs, announced that it would phase out production of CFCs by 1995, five years before the deadline set in the Montreal Protocol on Substances that Deplete the Ozone Layer. In 1989, 3M developed new environmental goals, which included a 70 per cent reduction in air emissions by 1993, at a price of \$175 million, and a 90 per cent reduction of all emissions by 2000.

41. The UNCTC/TCMD Benchmark Survey found that most corporations have designated a board member to deal with environmental problems; that more than 50 per cent have published an international policy statement outlining the principles for environmental protection in the corporation; and that 75 per cent

have established company-wide environmental policies in such areas as air pollution, water pollution and protection of land resources. According to the Benchmark Survey, the corporations are most likely to have policies and supportive managerial activities in the areas of energy saving, health and safety of workers and surrounding communities, and waste treatment/disposal.

42. Corporate management practices are elaborated in these areas in particular because they have tangible and short-term benefits for corporations, such as reduced liabilities and savings on waste treatment and energy. For example, regulations regarding waste management increased landfill costs in the United States and the European Community dramatically in the 1980s. The main increase in cost, however, was related to the further treatment of wastes rather than to dumping.

43. The Benchmark Survey furthermore found that a few but an increasing number of corporations are beginning to see the benefits of being proactive in their environmental policies and practices. They understand that anticipating future regulations and liabilities increases their competitiveness and allows them to capture shares of the rapidly growing \$300 billion international market in environmental services and equipment. ^{35/} Furthermore, by investing in sustainable development activities, corporations appease and appeal to green consumers, ethical investors, and politicians, who are increasingly sensitive to the environmental concerns of the electorate.

C. Harmonization of environmental regulations affecting transnational corporations

44. Parallel to the expansion in corporate environmental management practices, recent years have also seen increased regulatory efforts by Governments and international organizations to manage transnational corporation impacts. The respondents to the UNCTC/TCMD Benchmark Survey reported that the single most important factor for the establishment of corporate-wide environment, health and safety programmes was changes in the environmental regulations of the home country. ^{36/} Furthermore the Benchmark Survey found significant national differences in the scope and content of environmental management practices. North American and Japanese corporations were significantly more inclined to have environment, health and safety policies and programmes than were European corporations.

45. There has been a notable rise in industrial environmental regulations in countries which previously had no environmental legislation, and a regulatory strengthening in countries that already had regulations in place. Newly industrialized countries and economies in transition are increasingly establishing environmental regulations. For example, Mexico, in entering the negotiations for NAFTA, invested substantial resources in amending and enforcing its environmental laws. Industrialized countries are concentrating on developing new and more sophisticated regulatory instruments, such as market means of regulation, and on consolidating existing regulations through a strengthening of enforcement procedures.

46. These findings suggest that national environmental regulations are a sine qua non in influencing environmental management in transnational

corporations. Unilateral and uncoordinated national approaches to regulating environmental impacts of industrial activity, however, might be inadequate and even counter-productive, especially in dealing with transnational corporations, for two main reasons.

47. The first reason is the danger that uncoordinated environmental regulations might lead to concentration of polluting industries in areas where environmental regulations are weak or absent. Although current literature shows scant evidence for the "pollution haven" thesis, 37/ growing pollution abatement costs, especially in the industrialized countries, and improved industrial infrastructure in developing countries and economies in transition might render relocation for environmental reasons an increasingly viable option for some industries. The second reason is that unilateral environmental measures, such as content standards or recycling requirements, can be perceived as non-tariff trade barriers by trade partners, and lead to retaliatory action or trade wars. Recent environment-related disputes in the General Agreement on Tariffs and Trade (GATT) and at the European Community Court, as well as the debate over NAFTA, validate this possibility. 38/ Consequently, there is a need for and an emerging thrust towards harmonization of national environment health and safety measures at the international level.

48. International policies with an actual or a potential impact on transnational corporations have grown at a rapid pace in the past few years. While Governments signed only nine international environmental treaties between 1948 and 1970, 32 international treaties have since been adopted, many of which have a direct impact on transnational corporations. 34/

49. Outright prohibitions on certain trade have increased: prohibitions on the production and use of certain ozone-depleting chemicals with the adoption of the Montreal Protocol; the ban on exports to Africa of substances prohibited by the exporting country in the 1991 regional Bamako Convention; 39/ and the ban on all commercial activity related to mineral exploitation in Antarctica. 40/ In addition, international use of statutory protection is increasingly touching upon a wide range of the activities of transnational corporations, such as quality standards, dealer licensing, product registration, industrial activity authorization, packaging and labelling, transportation, advertising and, imminently, accounting. 41/ Finally, civil liability for environmental and other damage is included in a growing number of international instruments, and the obligations relating to the growing rules on public right of access to environmental information are set to increase.

50. Generally, many of these international instruments cannot be enforced unless they are incorporated into national laws. However, the international community has also begun using more indirect measures to implement environmental agreements. There are indications that international environmental standards come to play a role, roughly equivalent to the well-recognized human rights standards. As a result, firms that take a cavalier attitude to environment and development are likely to discover concerted intergovernmental actions as well as unexpected public relations costs. This development could point to the beginning of international customary law on the subject.

D. Emergence of voluntary environmental guidelines for transnational corporations

51. Even though international environmental regulations have been increasing, public perceptions of appropriate environmental behaviour have evolved more quickly than have international instruments. This has had a significant effect on the overall policies of transnational corporations. Caught between public pressures 42/ and growing environmental regulations, corporations and their trade associations have developed voluntary industrial guidelines and codes of conduct to stay ahead of regulations and public discontent. These efforts on the part of transnational corporations are broadly known as "self-regulation".

52. Corporate environmental voluntarism has become a highly viable and dynamic policy area. The previous section described the numerous industrial guidelines that have been developed by industrial associations in response to UNCED. Industrial associations are also developing environment, health and safety guidelines for their members, for internal as well as external reasons, independent of the UNCED process. Among the more notable of these are the Code of Practices of the German Environmental Management Association (BAUM), which has 320 corporate sponsors, and the Responsible Care programme of the Chemical Manufacturers Association to which 95 per cent of United States chemical manufacturers subscribe. Similar voluntary guidelines are taking an increasingly important place in developing countries as well. For example Malaysia's Corporate Environmental Policy, issued by the Malaysian Environmental Quality Council in 1991, calls on companies to reduce any adverse effects on environment to a practicable minimum. Similarly, in 1991, the Indian Confederation of Engineering Industry published an Environment Code for Industry.

53. Corporate voluntarism has direct benefits to transnational corporations. It is important for an industry to keep a level playing field to avoid detrimental competition on environmental standards among its members. Furthermore, the development of standards and guidelines by industrial associations offers economies of scale for an industry. Instead of each corporation using resources on developing programmes and standards, they can utilize the industry-wide benchmarks set up by industrial associations. Compilations of examples of environmental innovations in corporations published by industrial associations 43/ as well as the growing body of industry-initiated guidelines and environmental standards, are ways of communicating environmental experiences among members. Furthermore, industry guidelines assure the public that transnational corporations take good care of environmental matters. By establishing voluntary environmental guidelines, industrial associations can argue that binding regulation is unwarranted.

54. The proponents of corporate self-regulation stress that, at the international level, one has to discard the failed "command and control" approach and replace it with incentive systems. According to the business community, this approach, which depends largely on corporate "self-regulation", financially rewards firms for doing good and requires a minimum of international standards. However, a drawback is that corporate "free riders" can continue past practices in the international market without sharing the burden with those that took on voluntary environmental guidelines. Furthermore, potential polluters are not likely to make "laws" (i.e., regulate) and order "sanctions"

(i.e., authorize penalties and fines) that are against their self-interest. State regulation presumes that there is a political process that defines a level of acceptable pollution, and regulations are issued to dispense this standard equitably among polluters. No individual firm or trade association can determine the publicly approved level of pollution or allocation of responsibility.

E. Summary

55. The first two sections briefly showed that issues related to transnational corporations played a prominent role in the UNCED process because the process coincided with four trends in the field of business and environmental protection: (1) an increasingly global economy has made transnational corporations a leading public environmental concern and thus a major issue in the UNCED process; (2) a rapid growth in corporate environmental management practices has revealed the enormous positive potential of transnational corporations in environmental protection; (3) the transnational character of much industrial activity entails a thrust towards harmonization of environmental regulations and guidelines pertaining to industry; and (4) the growing body of voluntary/non-binding industrial guidelines has proved to be a viable alternative or supplement to regulatory measures. The next two sections will focus on the results of UNCED as related to transnational corporations and on future activities as recommended in Agenda 21.

III. OVERVIEW OF THE RESULTS OF UNCED AS RELATED TO TRANSNATIONAL CORPORATIONS

56. As noted earlier, UNCED adopted a declaration on the basic principles of sustainable development 1/ and agreed on non-legally binding forestry principles. 2/ Conventions on biodiversity and climate change 3/ were opened for signature at the Conference. While these conventions and declarations may well affect certain aspects of the activities of transnational corporations in the future, there are no direct references to transnational corporations in them. The principal document containing advice and proposals involving transnational corporations is Agenda 21.

A. References to transnational corporations in Agenda 21

57. Agenda 21 contains numerous references to the responsibilities of business and industry. UNCED addressed business issues in chapter 30 of Agenda 21 (Strengthening the role of business and industry). The chapter has two sections: one on cleaner production and the other on responsible entrepreneurship. Briefly, chapter 30 calls for corporations to establish worldwide corporate policies on sustainable development (para. 30.22); report annually on their environmental record (para. 30.10 (a)); promote awareness among employees (para. 30.14); foster openness and dialogue with employees and the public (para. 30.26); facilitate the transfer of clean technology to developing countries (para. 30.22); and ensure ethical and responsible management of products and processes (para. 30.26).

58. However, the views and expectations of UNCED on the environmental responsibility of transnational corporations can also be found in other chapters of Agenda 21. 44/ More than eight chapters contain references to such issues as business and hazardous waste; business and biodiversity; and international banking and the debt crisis. A summary of these references is contained in annex I below.

59. In that annex, the references have been grouped in two broad categories. The first deals with activities that transnational corporations and other industrial actors should undertake with appropriate government and international organization support and the second, activities that are asked of Governments and/or international organizations, with which transnational corporations should cooperate. In order to further facilitate understanding of the references, these broad categories have been further grouped under five major areas of work in which transnational corporations can play a significant role: global corporate environmental management; environmentally sound production and consumption patterns; risk and hazard minimization; full-cost environmental accounting; and environmental conventions, standards and guidelines 45/ (these areas correspond roughly to the project areas set out in sect. IV, paras. 75-93).

60. By referring to activities under "global corporate environmental management" Agenda 21 acknowledges the accomplishments of transnational corporations in corporate environmental responsibility and attempts to push the boundaries of influence further towards the overall sustainable development goals expressed in various United Nations forums since 1987. For example, Agenda 21 suggests that transnational corporations establish worldwide corporate policies on sustainable development by broadening the scope of environmental policies and commitments of transnational corporations to apply equally in the host and home countries (see para. 75 below); and to assume a special role in environmentally sound technology transfers and building technological capacities in host countries (see para. 86). The latter suggestion highlights the potential that exists for transfer of environmentally sound technologies using the extensive global networks of transnational corporations; firms can make their research and development capabilities more widely accessible through direct parent-affiliate exchanges. Further requests that go beyond the existing practices of transnational corporations include introducing policies and commitments to adopt standards of operation that are equivalent to or not less stringent than those in the country of origin (see para. 92); establishing management systems that identify the need for cleaner production sites (see para. 78); and reporting annually on their environmental and energy and natural resource use records (see paras. 79 and 89).

61. Within the same major area of work, Agenda 21 asks transnational corporations to cooperate with Governments and international organizations in improving databases and information systems on toxic chemicals (see para. 80); and in providing training exchange programmes to produce a core of trained personnel in host countries (see para. 77). Additional cooperative activities in conducting environmental audits of existing industries (see para. 89) and providing information to developing countries that are short of such technical expertise (see paras. 77, 83 and 85), are two of the suggestions that can move the role of transnational corporations beyond the current state of affairs.

62. Under the major area of work on environmentally sound production and consumption patterns, the Agenda 21 suggestions on what should be undertaken focus on globalized waste and pollution reduction schemes (see paras. 79 and 80) and increased global access to sounder technologies (see para. 86). For example, it is suggested that transnational corporations play a major role in reducing resource use and harmful environmental impacts through more efficient production processes, preventative strategies and cleaner production technologies (see paras. 75 and 76); and arrange for environmentally sound technologies to be available to affiliates in developing countries (see para. 86). Governments, international organizations and transnational corporations are asked to cooperate in providing economic and regulatory incentives to promote industrial innovation in sounder technologies (see para. 86); and to encourage investments and training programmes in hazard management (see paras. 85 and 90). Other suggestions for transnational corporation cooperation include such new and forward-looking activities as launching cleaner technology demonstration projects (see paras. 77 and 86); and harmonizing the classification of chemicals and labelling systems for chemicals using all official United Nations languages and pictograms (see paras. 87 and 93).

63. The suggestions under "risk and hazard minimization" revolve around research, information, the life-cycle perspective, phase-out of hazards and transparency. Particular emphasis is placed on transnational corporations having a "local focus"; in other words, in their operations, transnational corporations should take into account the local environmental and developmental needs of developing countries. For example, Agenda 21 suggests that transnational corporations encourage affiliates to modify procedures to reflect local conditions (see para. 76); apply a "responsible care" approach to chemicals based on the total life-cycle of the products (see paras. 79 and 80); and be transparent in their operations by providing information on their hazardous waste management (see paras. 89 and 90).

64. Under the same category, transnational corporations, Governments and international organizations are requested to cooperate in developing, among other things, monitoring procedures based on "cradle-to-grave" approaches to hazard management. Undertaking such an effort would mean assessing the sustainable development effects of every step in the production cycle from processing the natural resources, to efficiency in input use, to effects of the outputs both in terms of goods and wastes/emissions produced. Some recent developments, such as "take back" programmes by auto makers who receive older versions of their cars back rather than having them accumulate in junk-yards, are the beginnings of implementing a full-cycle production process that is environmentally responsible on a global scale. In addition, Agenda 21 asks for the development of common criteria on chemicals appropriate for consideration for concerted risk reduction schemes (see para. 80); mechanisms for safer production, including substitution with safer alternative materials (see paras. 83 and 86); phase-out measures for those substances that are toxic and bio-accumulative, but whose use is difficult to control under other schemes, and to clean up hazardous waste sites (see para. 80); programmes to minimize risks from storage of out-dated chemicals; and inventories of hazardous waste production sites.

65. To fulfil goals under "full-cost environmental accounting", Agenda 21 suggests that transnational corporations be invited to participate in internalizing environmental costs and using price systems in implementing environmental goals. Participation in full-cost environmental accounting is advised to be at the international level and to focus on assessing practical implementation issues (see para. 89). Agenda 21 calls for cooperation of Governments, international organizations and transnational corporations in developing methodologies that value non-natural resources and overall data collection in the context of full-cost accounting (see para. 90). Internalizing environmental costs has been a challenge to policy makers and industry alike. Despite some positive trends in this area, the established accounting methods still leave environmental and social costs as "additional" budget lines rather than as a part of the production cost. Changes in accounting systems have been slow as the change is beyond mechanical changes in the ledger-books but requires a change in the perceptions and overall business and government priorities.

66. In the area of environmental conventions, standards and guidelines, the activities that should be undertaken emphasize an environmental code of conduct and voluntary programmes that further the goals of existing instruments, including voluntary and trade association guidelines (see paras. 76, 82 and 93), as well as international conventions, protocols and other instruments that set environmental targets, standards and frameworks (see para. 93).

67. Agenda 21 suggests that the best environmental practices of transnational corporations can be promoted with wider adoption of and reporting on implementation of environmental codes of conduct; adoption of voluntary information-sharing programmes, based on the spirit of international guidelines; and development of sectoral trade association guidelines on cleaner production. More specific requests for cooperation in this area include adopting and developing regulatory and non-regulatory measures that prevent the export of chemicals that are banned, severely restricted, withdrawn or not approved for environmental reasons; increasing standardization efforts in the food production sector; and developing guidelines on public communication of chemical risks. Repeated emphasis in this group of activities is placed on policies regarding producers' liabilities and responsibility of industry for sound waste disposal through regulatory and non-regulatory measures. Concerns on liability are based on the "polluter pays principle", which has become the core principle behind several international environmental instruments. However, there remain questions to which this principle is difficult to apply. For example, liabilities related to transnational investments in previously contaminated sites are still largely undetermined.

B. Preliminary assessments by transnational corporations of UNCED and Agenda 21

68. After UNCED, the Transnational Corporations and Management Division informed more than 2,000 transnational corporations of the results, as reflected in section III and annex I, and asked for their appraisal of UNCED. A preliminary reading of the responses indicates that the business community is overwhelmingly positive in its assessment of the Conference. There seems to be a sense of pride in the role that business played in the UNCED process, and in the relative success business associations had in deflecting issues and

recommendations considered harmful to the business community. Most responses stress the positive agenda-setting and awareness-raising effect of UNCED, although Sandoz pointed out that "it would give a totally false impression if we were to say that our awareness as a company ... originated with UNCED ... UNCED may be considered as [an] encouragement, but not a causative stimulant". Several corporations stated that the recommendations of Agenda 21 were conducive to moving corporations towards sustainable development but that they needed to be specific and tied more directly to industry and sector-specific conditions.

69. Generally, the responding corporations looked forward to working with the United Nations in implementing Agenda 21. Most of them encouraged the United Nations to seek closer cooperation with industrial associations such as ICC 46/ and BCSD, 47/ and argued that contact with individual corporations should take place with industrial associations as intermediators. Many corporations had high expectations for future business-related projects from the United Nations. Some corporations offered highly specific project proposals, while others gave more general suggestions of areas that the United Nations could engage in. 3M suggested that various task-groups should work with business addressing the recommendations offered in BCSD's Changing Course and ICC's From Ideas to Action. 43/ Waste Management Inc. suggested that the United Nations should work with the newly established United States Environmental Training Institute USETI. 48/

70. It was clear that some of the corporations had seriously considered the implications of sustainable development for their activities. Volkswagen AG adopted the recommendations of Agenda 21, which in its view were in line with the recommendations of the BCSD's Changing Course 7/ and the ICC Charter. Volvo AB reported that its efforts to protect the environment were based on a holistic view, including life-cycle analysis and environmental auditing. This corporation had conducted an environment seminar at the Seville World Exhibition, where it was concluded that although improvements had been achieved in the transport sector to reduce pollution, international action was necessary to ensure "sustainable mobility". The report of the seminar stated that while there was a correlation between mobility and economic development, mobility caused serious environmental problems; and that a possible revenue source to address environmental problems might be "green taxation" after a redistribution of taxes without any increase in total tax burden.

71. A few of the responses contained criticisms, such as the lack of coordination in the Uruguay Round of multilateral trade negotiations and the lack of a clear acknowledgement in Agenda 21 of property rights for technologies and genetic material. Some fear that calls for market instruments might become synonymous with green taxation. Not surprisingly, United States corporations were highly critical of the "United States-bashing" that took place at Rio de Janeiro on such issues as biodiversity and climate change.

IV. NEAR-TERM ROLE OF THE UNITED NATIONS IN THE IMPLEMENTATION
OF AGENDA 21 RECOMMENDATIONS RELATED TO INTERNATIONAL
BUSINESS ACTIVITIES

72. Agenda 21 assigned importance to the role of business and industry in implementing the suggested activities for sustainable development as well as to the participation of business and industry in the work of the Commission on Sustainable Development and its secretariat. Among the specific recommendations contained in Agenda 21 are that:

Business and industry, including transnational corporations, and their representative organizations should be full participants in the implementation and evaluation of activities related to Agenda 21 (para. 30.1);

United Nations organizations and agencies should improve mechanisms for business and industry inputs, policy and strategy formulation processes, to ensure that environmental aspects are strengthened in foreign investment (para. 30.28);

The Commission on Sustainable Development should ... encourage the participation of non-governmental organizations, including industry and the business and scientific communities [in its deliberations] (para. 38.11).

73. More than 900 firms were involved in the UNCED preparatory process. Concerted efforts are necessary to maintain and expand this level of participation. To assist in this context, the Transnational Corporations and Management Division has prepared an index of firms that were part of the UNCED process, including their addresses, their senior official(s) and the form of their participation. The Commission might consider ways to initiate activities that can create new and positive business, industry and intergovernmental links.

74. From the more than 60 areas in which international organizations are encouraged to participate with the international corporate community in carrying out the goals of Agenda 21, it is necessary to select certain themes for initial attention. At the programme level, future environmental work relevant to the activities of transnational corporations could focus on the following six areas: (1) integrating environment and development into corporate decision-making in all countries; (2) building the institutional capacity of developing and transitional economies to manage large-scale projects, investments and technologies in an environmentally sound manner; (3) examining the linkages between trade, foreign investment and the environment; (4) evaluating market and regulatory instruments that seek to increase the use of "green" products, processes and services; (5) supporting full internationalization of environmental costs and transparency in accounting and reporting; and (6) contributing to the further expansion of corporate international environmental laws, agreements and guidelines. Coordination would be maintained with the staff of UNCED, UNEP, ECE, ILO, the Food and Agriculture Organization of the United Nations, the World Health Organization and OECD, as appropriate. A number of indicative projects in each of these work areas are presented in the following sections.

A. Integrating environment and development into corporate decision-making 49/

75. Sectoral impact surveys. The Commission on Transnational Corporations could propose to undertake sectoral surveys, especially in the financial services sector. Sectoral research on environmental management has predominantly focused on manufacturing and extractive sectors, with little or no attention to the financial services sector, which plays an important role in financing new investments. A detailed survey of this sector would study the emerging environmental management practices in the financial services sector; provide the experiences gained from the other and more familiar sectors; and make suggestions on how to improve the environmental soundness of investment and loan decisions.

76. Second Benchmark Corporate Environmental Survey. The first Benchmark Corporate Environmental Survey collected data on environmental management practices of the leading transnational corporations. The Commission could propose that a second survey be undertaken to observe and measure the changes in corporate environmental policies and programmes over a period of eight years, from 1987 to 1995. The outcome of the project could be documentation that would assist the General Assembly's review of Agenda 21, scheduled for 1995.

77. Training and research in corporate sustainable development management. While the efforts of intergovernmental and non-governmental environmental organizations have gained acceptance for "environmental management" in the corporate world, there is still need for extensive work before "sustainable development management" is accepted as a corporate management tool.

B. Building governmental institutional capacities

78. Institutional capacity-building is a major component of sustainable development and is repeatedly emphasized throughout Agenda 21. One way to build capacity for sustainable development management practices among businesses, especially in the developing countries, is through training programmes that target government officials, as well as foreign and local business representatives and their organizations. In accordance with Agenda 21, paragraph 19.40 (b), the Commission could authorize the design and implementation of training courses that would focus on the various methods available to balance environmental interests and economic growth, and to effectively incorporate these concerns in national laws, regulations and contracts involving transnational corporations.

79. Study of the policy options to minimize the use of natural resources and to reduce generation of pollution linked to activities of transnational corporations. For example, protection of freshwater sources is an urgent issue, especially in the context of developing countries. However, there is little or no research especially on the land-based sources of freshwater pollution, or on how the activities of transnational corporations affect such pollution. The Commission could invite its secretariat to undertake a study that provides an in-depth analysis of the issues and makes recommendations on how sustainable development management provisions can be entered into agreements with transnational corporations. The outcomes of this project could be valuable

inputs to the forthcoming conferences on straddling and highly migratory fish stocks and on the sustainable development of small island developing States. Further work along the lines of this project could also be formulated for other areas in section II of Agenda 21.

80. Study on the phase-out process of environmentally hazardous substances and hazardous technology directory/database. Several international instruments have initiated phase-out programmes for environmentally hazardous substances (e.g., the Montreal Protocol). Implementing the phase-out measures is challenging to industries, especially if the efforts in different industrial sectors and countries are not consistent or mutually supportive. Furthermore, Governments, businesses and other groups are likely to have an increasing need for clear, well-organized, reliable and accessible information sources with which their decisions can foster the sustainable development efforts. Currently, there is no comprehensive and globally available database or information system on hazardous technologies and their safer, cleaner alternatives that is accessible to developing countries. In pursuance of Economic and Social Council resolutions and in the light of the repeated emphasis in Agenda 21 on the importance of information networks on sound technologies (chap. 34), and in order to build on the experience of preparing the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or not Approved by Governments, 50/ the Commission could request the designing and implementing of a database that could support policy-making in this area.

C. Examining the linkages between trade, foreign investment and the environment

81. There is growing interest regarding the relationship between trade and investment, and the environment. The issues under this work area are numerous and relevant to both the industrialized and the developing countries. For example, the latter often feel that increasingly stricter environmental measures in the industrialized countries could become protectionist instruments and that their terms of trade would hence deteriorate. The industrialized countries, on the other hand, feel that their national environmental gains could be undermined if developing countries allow foreign investors to find so-called "pollution havens" there. Furthermore, as the trends for regional trade blocs continue, many questions arise as to the environmental consequences and related responsibilities of transnational corporations.

82. As growing numbers of countries seek the advantages of regional economic agreements, there will also be a growing need to formulate clear environmental standards that are consistent both with the national goals of each country partner and with the economic goals of the regional agreement. Preliminary evidence from observing the United States-Canada, European Economic Community and NAFTA negotiation processes shows that the place of the environment as a priority issue grew in each of these agreements. A major source of conflict in trade agreements can be the method to use in reconciling different rules, procedures, regulations and appeals governing environmental protection. There is great variance not only between national environmental standards, but also between the national standards and the demands of international environmental instruments. This variance is a deterrent for many businesses as it is costly to manage the differing requirements and regulations. Such a barrier to new

investments could be especially harmful to developing country economies that depend on foreign investments to increase exports, improve their terms of trade and reduce their foreign debts. The Commission could request a comprehensive study of the provisions applicable to regional and bilateral trade agreements dealing with the harmonization of environmental health and safety standards. Such a study would compare the environmental standard-setting examples in the existing trade agreements and provide tangible models for developing countries and countries in transition to accomplish their economic goals in an environmentally sustainable manner. The outcome of such a study would both benefit individual countries' efforts in harmonizing national environmental laws with the provisions of international instruments and help resolve conflicts in future trade agreement negotiations.

83. Effect of environmental regulations of industrialized countries on trade, FDI and environmental management in developing countries. A number of developing countries and countries in transition are concerned that environmental requirements of industrialized country economic partners could become non-tariff barriers to trade or could be introduced as a form of "green conditionality" on future trade relationships. Furthermore, as environmental concerns and awareness changes the composition of the markets, at least in the industrialized world, decision makers would need more information about newly opening markets based on new substitutes for environmentally hazardous products and materials.

D. Evaluating market and regulatory instruments supporting "green" markets

84. The market for "green" products, processes and services has been one of the top economic growth sectors in the past couple of decades. This sector is likely to grow further as environmental regulations become stricter and as countries start implementing their national Agenda 21 programmes. The Transnational Corporations and Management Division's existing expertise in sectoral market analyses could be utilized to provide studies on the status of "green" markets; assistance to Governments in expanding their "green" markets; and contributions to the harmonization of environmental product labelling systems.

85. Green market and investment report. The Commission may wish to propose a study on the size, structure and scope of the international market for "green" products, technologies and services. The report could cover industrial sectors, provide information on the geographical distribution of current state of "green" markets and investments, and indicate future growth areas by industrial category.

86. Assistance to Governments in expanding the use and production of investments in "green" technologies, products and markets. 51/ The United Nations system could provide its services in this area in at least two ways: implementing the second phase of the project on the transfer of environmentally sound technologies under favourable terms; and advising Governments of developing countries and countries in transition on ways to increase their share of the "green" markets, including technologies, processes and products. In the first phase of the Transnational Corporations and Management Division's project on the transfer of environmentally sound technologies, a number of policy

instruments that could reduce the barriers to "greening" the economic and industrial processes were identified. In the second phase, it is proposed to apply country-specific mixes of these instruments in field applications in order to increase the use of and access to sounder technologies in developing countries and transitional economies. By drawing upon the experiences and knowledge generated by its work on environmentally sound technology transfers as well as the proposed study on "green" markets, the United Nations could broaden its service targets and assist Governments in ways to expand both their national "green" markets and their share of such markets at the international level.

87. Contributions to the harmonization of environmental product labelling. Several industrialized countries have initiated "eco-labelling" mechanisms to help consumers choose products that are environmentally safer and sounder. Similar to the area of environmental regulations, eco-labelling programmes differ between countries. As the labelling efforts are likely to continue, expand and be initiated in many more countries, there is need for ways that would harmonize the labelling systems for consistency and protection of consumers on a wider basis, and contribute to sustainable development by helping to increase the consumption of environmentally sounder products. 52/

E. Internationalization of environmental costs and transparency in accounting and reporting

88. Agenda 21 requests the development of methods for pricing global natural resources and assessment of costs of damage incurred on these resources (para. 8.48). It also calls for the standardization and harmonization of environmental impact measurements (paras. 20.14 and 30.9).

89. Based on the Transnational Corporations and Management Division's previous work on environmental costs, accounting and reporting, as well as its study on hazards disclosure, two complementary projects to undertake would be a study on the standardization of environment and development impact measurements, which would harmonize the methods by which measurements are reported and disclosed; and a study on designing methodologies to assess environmental costs and damages, which would compare, in detail, the existing estimates of environmental damages, the share of transnational corporations as a causal factor, and analyse how such damage could affect future activities of transnational corporations and sustainable development in developing countries.

90. Comparative measurements of sustainable development performance by transnational corporations. Although there is growing corporate involvement in environmental excellence programmes, there is very little comparative evaluation of existing efforts. One known example is the study conducted by the Centre for Environment Management and Planning (CEMP) that is looking at the progress on model corporate environmental disclosure practices. Based on the Transnational Corporations and Management Division's prior work on corporate environmental management practices, a detailed comparative study could be conducted to create environmental performance "benchmarks", against which environmental performance and quality can be consistently improved.

F. Expansion of corporate international environmental laws, agreements and guidelines

91. One of the main factors that led to the emerging corporate environmental excellence was existing and expected environmental regulations, laws and requirements. In order to continue the positive synergy between environmental regulation, not excluding voluntary measures, further work is needed to focus on minimum national, regional and international environmental standards; assessments of pending international conventions and their expected effect on transnational corporations and methods to resolve trade and environment disputes between transnational corporations, Governments and other constituencies.

92. Minimum environmental industrial standards. The development of unrelated and uncoordinated standards can increase the barriers for international investment and trade. Supportive projects, based on the Criteria for Sustainable Development Management 17/ and the work on corporate environmental laws, could focus on a comparative assessment of international guidelines for corporate activities. One of the outcomes of this work would be the provision of assistance to Governments in order to integrate minimum environmental standards in national norms. The same could be done at the regional and international levels, based on that work.

93. Assessments of pending international conventions and their expected effect on transnational corporations. Several international environmental instruments are expected to be negotiated in the next few years. Among these are agreements on desertification, highly migratory fish stocks, forestry, and trade in potentially harmful chemicals. In the past, the Transnational Corporations and Management Division provided information on what Governments and transnational corporations can expect from forthcoming international instruments. For example, the study on climate change 33/ evaluated the possible impact of a climate convention on transnational corporations. The Commission could propose to extend existing expertise by conducting studies on any aspects related to transnational corporations of other agreements that are under negotiation. 53/

Notes

1/ Rio Declaration on Environment and Development (Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8), resolution 1, annex I).

2/ Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (Report of the United Nations Conference on Environment and Development ..., resolution 1, annex III).

3/ A/AC.237/18 (Part II)/Add.1 and Corr.1.

4/ Report of the United Nations Conference on Environment and Development ..., resolution 1, annex II.

5/ The World Commission on Environment and Development (WCED) was chaired by Mrs. Gro Harlem Brundtland, Prime Minister of Norway. The United Nations General Assembly requested WCED to study the interaction between economic development and environmental protection. Its final report (Our Common Future (Oxford and New York, Oxford University Press, 1987)) became the basis on which the General Assembly called for UNCED in 1992. The report discusses business and industry issues primarily in chapter 8. In addition, chapter 3 mentions specific responsibilities of transnational corporations for development and environmental protection.

6/ According to a 1991 study by McKinsey and Company, 92 per cent of the 400 firms surveyed agreed that the environmental challenge was one of the central issues of the twenty-first century (McKinsey and Company, The Corporate Response to the Environmental Challenge (Amsterdam, Netherlands, 1991)). At the 1990 World Economic Forum, 650 industry and governmental leaders ranked the environment as the number one challenge facing business (Cahan and Smith, "The greening of corporate America", Business Week, 23 April 1990).

7/ Stephan Schmidheiny, Changing Course: A Global Business Perspective on Development and the Environment (Cambridge, Massachusetts, the MIT Press, 1992).

8/ The Environmental Management Guidelines of ICC was the first major industry statement on global responsibility for environmental protection and was presented at the United Nations Conference on the Human Environment, held at Stockholm in 1972.

9/ Regional Conference at Ministerial Level on the follow-up to the Report of the World Commission on Environment and Development in the ECE Region, held at Bergen, Norway, in May 1990. Under the theme "Action for a common future", the Bergen Conference focused on climate change, energy efficiency, transfer of environmentally sound technologies and know-how, wider participation in the policy process, environmental education and international harmonization. The Business Charter for Sustainable Development was one of seven projects initiated by European and North American business leaders at the Bergen Conference.

10/ The International Environmental Bureau was established following the first World Industry Conference on Environmental Management, held at Versailles, France in November 1984.

11/ Keidanren, Keidanren Global Environmental Charter (Tokyo, 1991).

12/ CERES, The Valdez Principles (Boston, 1989).

13/ Tom Gladwin, Building the Sustainable Corporation: Creating Environmental Sustainability and Corporate Advantage (National Wildlife Foundation, 1992).

14/ OECD, Guiding Principles for Chemical Accident Prevention, Preparedness and Response (Paris, 1992), sect. G, "Transfer of technology and international investment related to installations in non-OECD countries".

15/ See, for example, the ILO Convention and Recommendation on Safety in the Use of Chemicals at Work or the ILO draft Convention and Recommendation on the Prevention of the Major Industrial Accidents.

16/ See "Report of the Conference on Ecologically Sustainable Industrial Development, Copenhagen, 14-18 October 1991" (A/CONF.151/PC/125, annex).

17/ Criteria for Sustainable Development Management (New York, United Nations, 1991).

18/ Subsequently, the Preparatory Committee for UNCED, at its third session, requested the full integration of development considerations and needs and realities, in particular of the developing countries, in all Agenda 21 programme documents, indicating large industrial enterprises, including transnational corporations, business practices and the environment (see Official Records of the General Assembly, Forty-sixth Session, Supplement No. 48 (A/46/48), vol. II, annex I, decision 3/2).

19/ Benchmark Corporate Environmental Survey, to be issued as a United Nations publication in 1993. Preliminary reports of the survey were presented to the Preparatory Committee for UNCED at its third session, in 1991 (ST/CTC/SER.C/1-5).

20/ Transfer of Environmentally Sound Technologies, to be issued as a United Nations publication in 1993. Preliminary results were published in two draft volumes for the Preparatory Committee for UNCED at its third session, in 1991.

21/ "Environmental accounting for sustainable development: note by the Secretariat" (A/CONF.151/PC/89).

22/ "Report of the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting on its tenth session" (E/C.10/1992/12).

23/ Information provided by the Business Council for Sustainable Development, 1992.

24/ International Environmental Bureau, Newsletter, vol. 2, No. 3, May/June 1992.

25/ Information provided by the Global Environmental Management Initiative, 1992.

26/ The Business Charter for Sustainable Development: Supporting Companies and Business Organizations (ICC, February 1992).

27/ Second World Industry Conference on Environmental Management (WICEM II), Rotterdam, Netherlands, 10-12 April 1991, list of participants.

28/ As the corporate participation in the UNIDO Conference was principally through industrial trade associations, data on individual firms at that Conference were not used to tabulate results.

29/ International Chamber of Commerce, ICC Industry Forum on Environment and Development, Rio de Janeiro, Brazil, 27-29 May 1992.

30/ Confederation of British Industry (CBI)/ICC Conference on Environmental Excellence as a Key to International Competitiveness: The Business Response to the UNCED Earth Summit, London, 1 October 1992.

31/ World Investment Report, 1992: Transnational Corporations as Engines of Growth (United Nations publication, Sales No. E.92.II.A.19), p. 1.

32/ J. D. Frame, International Business and Global Technology (Lexington, Massachusetts, Lexington Books, 1983), p. 160.

33/ Climate Change and Transnational Corporations: Analysis and Trends, Environment Series, No. 2 (United Nations publication, Sales No. E.92.II.A.7).

34/ Booz-Allen and Hamilton, Corporate Environmental Management: An Executive Survey, 1991.

35/ Bruce Smart, Beyond Compliance: A New Industry View of the Environment (Washington, D.C., World Resources Institute, 1992).

36/ More than 50 per cent of the respondents reported this factor as influential. In contrast, only around 20 per cent found legal actions directed towards the corporation influential, and fewer than 10 per cent found change in host country legislation important.

37/ In the World Investment Report, 1992 ... it was concluded that evidence of industrial relocation did exist in certain selected industries, for example asbestos, heavy metals and leather tanning, but the balance of the research suggested that environmental cost differences had not been a major determinant of FDI and that major shifts through FDI had not occurred because of differences in national standards.

38/ For example, the dispute at the European Community Court between the Government of Denmark and the Commission of the European Communities over the Danish bottle return legislation, the dispute at GATT between Mexico and the United States over a United States ban on Mexican tuna products, or the dispute between the European Community and the United States over a European Community ban on United States hormone treated meats.

39/ Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of All Forms of Hazardous Wastes within Africa.

40/ Protocol on Environment Protection signed by Antarctic Treaty parties on 3 October 1991 at Madrid.

41/ In the areas of reporting and accounting, the Transnational Corporations and Management Division has played a leading role in developing and harmonizing international standards for accounting and reporting in transnational corporations through the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting.

42/ For example, according to a recent Gallup International poll, 35 per cent of the world's population agreed that multinational corporations were "a great deal" responsible for the environmental degradation in developing countries.

43/ See Willums and Goluke, From Ideas to Action, Business and Sustainable Development (Oslo, Gyldendal, 1992); and Stephan Schmidheiny, Changing Course: A Global Business Perspective on Development and Environment (Cambridge, Massachusetts, the MIT Press, 1992).

44/ Agenda 21 uses a variety of expressions to describe the activities of transnational corporations. Among these are foreign private investment; foreign direct investment; [international] commercial banks; commercial banks [holding] external debt; multinational companies; business and industry including transnational corporations; business and industry including large industrial enterprises, including transnational corporations; business and industry including large industrial enterprises and transnational corporations; large industrial enterprises, including transnational corporations and domestic industry; and large industrial enterprises and transnational corporations as well as domestic industry.

45/ These five categories are based on the Executive Director's recommendations (see E/C.10/1992/2).

46/ In December 1992, the ICC Council announced the new chief executive office board of director-level World Industry Council on the Environment (WICE) to lead ICC post-Rio initiatives.

47/ BCSD has announced that a revitalized Council will continue work in the future.

48/ USETI arranges for developing country environmental managers to participate in the United States corporate environmental training courses, typically offered by companies to their own employees.

49/ Based on Agenda 21, chap. 6 and para. 30.22.

50/ United Nations publication, Sales No. E.91.IV.4.

51/ Project based on Agenda 21, para. 30.22.

52/ Project based on Agenda 21, para. 19.28.

53/ Project based on Agenda 21, para. 30.10 (a).

Annex I

TRANSNATIONAL CORPORATIONS AND SUSTAINABLE DEVELOPMENT:
A REVIEW OF AGENDA 21

Transnational corporations and other industrial actors with appropriate support from Governments and international organizations should:

In the area of global corporate environmental management

1. Introduce policies and commitments to adopt standards of operation that are equivalent to or not less stringent than those in the country of origin (19.52 (d) and 20.29);
2. Recognize environmental management as among the highest corporate priorities and as a key determinant of sustainable development (30.3);
3. Be encouraged to establish worldwide corporate policies on sustainable development (30.22);
4. Ensure responsible and ethical management of processes from the point of view of health, safety and the environment (30.26);
5. Establish environmental management systems, including environmental auditing of production or distribution sites in order to identify sites that need cleaner production methods (20.13 (i));
6. Strengthen partnerships to implement the principles and criteria for sustainable development (30.7);
7. Have a special role in promoting cooperation in technology transfer and in building a trained human resource pool and infrastructure in host countries (34.27);
8. Share their environmental management experiences with local authorities, national Governments and international organizations (30.22);
9. Report annually on their environmental record as well as on their use of energy and natural resources (30.10 (a));
10. Be encouraged to participate in debt and debt-service reduction programmes (2.27 (d));

Note: The figures in parentheses refer to paragraphs of Agenda 21 (Report of the United Nations Conference on Environment and Development, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8)).

In the area of environmentally sound production and consumption patterns

11. Play a major role in reducing impacts on resource use and the environment through more efficient production processes, preventive strategies and cleaner production technologies and procedures (30.2 and 30.4);
12. Work with Governments to identify and implement an appropriate mix of economic instruments and normative measures such as laws, legislation and standards to promote the use of cleaner production (30.8);
13. Integrate cleaner production approaches into the design of products and management practices (20.18 (c));
14. Arrange for environmentally sound technologies to be available to affiliates in developing countries (30.22);
15. Increase research and development efforts for environmentally sound technologies and environmental management systems in collaboration with academia and scientific/engineering establishments, drawing upon indigenous knowledge, where appropriate (30.25);
16. Integrate cleaner production principles and case studies into training programmes and organize environmental training programmes for the private sector and other groups in developing countries (8.38 (c) and 20.18 (b));
17. Establish cleaner production demonstration projects/networks by sector and by country (20.18 (b));
18. Consider establishing environmental partnership schemes with small and medium-sized enterprises (30.23);

In the area of risk and hazard minimization

19. Undertake research into the phase-out of those processes that pose the greatest environmental risk based on the hazardous wastes generated (20.17 (b));
20. Encourage affiliates to modify procedures in order to reflect local ecological conditions (30.22);
21. Provide data for substances produced that are needed specifically for the assessment of potential risks to human health and the environment (19.16);
22. Apply a "responsible care" approach to chemical products, taking into account the total life cycle of such products (19.50 (b) and 20.17 (d));
23. Phase out, where appropriate, and dispose of any banned chemicals that are still in stock or in use in an environmentally sound manner (19.52 (j));
24. Be transparent in their operations and provide relevant information to communities that might be affected by the generation and management of hazardous waste (20.14 (f));

25. Make available to Governments the information necessary to maintain inventories of hazardous wastes, treatment/disposal sites and contaminated sites that require rehabilitation, and related information on exposure and risks (20.22 (a));

In the area of full-cost environmental accounting

26. Be invited to participate at the international level in assessing the practical implementation of moving towards greater reliance on pricing systems that internalize environmental costs (8.37);

27. Cooperate in developing methodologies for the valuation of non-marketed natural resources and the standardization of data collection (8.50);

28. Work towards the development and implementation of concepts and methodologies for the internalization of environmental costs into accounting and pricing mechanisms (30.9);

In the area of environmental conventions, standards and guidelines

29. Adopt and report on the implementation of codes of conduct promoting the best environmental practices (30.10 (b));

30. Adopt, voluntarily, community right-to-know programmes based on international guidelines, including sharing information on the causes of accidental releases or potential releases and the means of preventing them (19.50 (c));

31. Report annually on routine emissions of toxic chemicals to the environment even in the absence of host country requirements (19.50 (c));

32. Develop an internationally agreed upon code of principles for the management of trade in chemicals (19.50 (a));

33. Develop in cooperation with Governments and sectoral trade associations guidelines and/or codes of conduct leading to cleaner production (20.13 (e));

34. Be full participants in the implementation and evaluation of activities related to Agenda 21 (30.1);

Transnational corporations and other corporate actors should cooperate with Governments and/or international organizations, which are asked to:

In the area of global corporate environmental management

35. Conduct environmental audits of existing industries to improve in-plant regimes for the management of hazardous wastes (20.22 (g) and 20.31 (h));

36. Encourage small and medium-sized industries to adopt risk reduction procedures (19.52 (e));

37. Improve databases and information systems on toxic chemicals, such as emission inventory programmes (19.40 (b) and 20.24 (a));

38. Provide training in the use of environmental information systems and databases (19.40 (b));

39. Establish a technical exchange programme to produce a core of trained personnel in each host country (19.39 (c) and 19.42);

40. Provide information to developing countries, especially those with a shortage of technical expertise (19.39 (c) and 20.26 (a));

In the area of environmentally sound production and consumption patterns

41. Provide economic and regulatory incentives to stimulate industrial innovation towards cleaner production methods and to promote technological and know-how cooperation between enterprises (20.13 (b) and 30.11);

42. Encourage industry to invest in preventive and/or recycling technologies and related training programmes so as to ensure environmentally sound management of hazardous wastes (20.18 (a), 20.13 (b) and 20.13 (f));

43. Significantly increase financial support for cleaner technology research and development programmes, especially in hazardous waste research management in developing countries (20.17 (a));

44. Launch demonstration projects and waste management campaigns on cleaner production and publicize local "success stories" (20.19 (c) and 20.18 (a));

45. Harmonize the classification of chemicals and labelling systems for chemicals using all official United Nations languages and pictograms (19.28);

In the area of risk and hazard minimization

46. Cooperate in developing common criteria to determine which chemicals are suitable candidates for concerted risk reduction activities (19.52 (a));

47. Generate the data necessary for hazard assessment of toxic chemicals (19.15 (b));

48. Give high priority to hazard assessment of chemicals, that is, of their intrinsic properties as the appropriate basis for risk assessment (19.15 (a));

49. Promote mechanisms to increase collaboration in risk assessment and risk assessment reports on chemicals and related processes (19.14 (b) and 19.14 (c));

50. Undertake national activities and review strategies to reduce risks from toxic chemicals, taking into account the entire life cycle of the chemicals (19.17 (a), 19.17 (b), 19.49 (b), 19.51 (a) and 19.52 (b));

51. Develop procedures for monitoring the application of the "cradle to grave" approach, including environmental audits (20.19 (e));

52. Harmonized evaluation of pesticides and reduce overdependence on the use of agricultural chemicals (19.49 (g) and 19.52 (g));

53. Develop mechanisms for the safe production, management and use of dangerous materials, substituting safer alternatives where appropriate (19.52 (h));

54. Phase out those chemicals that pose unreasonable and otherwise unmanageable risks and those that are toxic, persistent and bio-accumulative, the use of which cannot be adequately controlled (19.49 (b));

55. Minimize or eliminate, as far as feasible, risks from the storage of outdated chemicals (19.49 (i));

56. Prepare an inventory of hazardous waste production sites (20.19 (a), 20.22 (a) and 20.22 (g));

57. Expand the dissemination of technical and scientific information on health aspects of hazardous wastes (20.23 (a));

58. Clean-up of hazardous waste sites (20.22 (g));

59. Promote national poison control centres to ensure adequate diagnosis and treatment (19.49 (f));

60. Develop emergency response procedures and on-site and off-site emergency response plans (19.49 (h));

In the area of environmental conventions, standards and guidelines

61. Consider adopting policies based on accepted producer liability principles as well as precautionary, anticipatory and life-cycle approaches to chemical management, covering manufacturing, trade, transport, use and disposal (19.49 (a));

62. Adopt regulatory and non-regulatory measures to identify and minimize risks to toxic chemicals during the entire life cycle of the chemicals (19.49 (c));

63. Develop regulatory and non-regulatory measures aimed at preventing the export, except under restricted circumstances, of chemicals that are banned, severely restricted, withdrawn or not approved for health or environmental reasons (19.52 (f));

64. Increase efforts in standard setting in order to minimize adverse effects of chemicals in food (19.49 (d));

65. Establish regulations that lay down the ultimate responsibility of industries for environmentally sound disposal of their hazardous wastes (20.13 (k));

66. Develop guidelines, policies and/or the necessary regulatory framework to have manufacturers, importers and others disclose toxicity information, prevent accidents and make emergency response arrangements (19.49 (e), 19.52 (c) and 19.52 (i));

67. Develop guidelines for communicating to the public information on chemical risks (19.51 (b));

Annex II

CORPORATE INVOLVEMENT IN THE UNCED PROCESS

Table 1. Geographical distribution of participants in key corporate events in the UNCED process

Organization/ activity	Total number of cases	North America %	Europe %	Asia %	Developing countries %	Newly industrialized countries %
BCSD	48	23	29	17	29	2
WICEM	363	18	65	3	9	5
ICC Charter	556	14	50	4	28	5
ICC (Rio)	136	29	51	4	12	5
CBI/ICC (London)	59	0	100	0	0	0
ICC-IEB	37	35	57	0	5	3
Survey	208	37	34	28	1	0
GEMI	22	100	0	0	0	0

Sources: See notes 23-30.

BCSD	Business Council for Sustainable Development
WICEM	ICC/UNEP Second World Industry Conference on Environmental Management, Rotterdam, April 1991
ICC Charter	ICC Business Charter for Sustainable Development
ICC (Rio)	ICC Industry Forum on Environment and Development, Rio de Janeiro, May 1992
CBI/ICC (London)	Confederation of British Industry/International Chamber of Commerce Conference on Environmental Excellence as a Key to International Competitiveness, London, October 1992
ICC-IEB	ICC International Environmental Bureau
Survey	UNCTC/TCMD Benchmark Corporate Environmental Survey, 1991
GEMI	Global Environmental Management Initiative

Table 2. Association between key corporate events in the UNCED process

Organiza- tion/ activity	BCSD %	WICEM %	ICC charter %	ICC (Rio) %	CBI/ICC (London) %	ICC- IEB %	Survey %	GEMI %
Sole activity/ no over- lapping activities	48	40	72	44	56	10	66	55
BCSD	-	5	4	7	7	27	2	9
WICEM	35	-	14	41	75	23	11	50
ICC Charter	46	21	-	41	32	81	19	64
ICC (Rio)	21	15	10	-	0	46	10	32
CBI/ICC (London)	8	12	3	0	-	0	0	9
ICC-IEB	21	6	5	13	0	-	3	41
Survey	15	6	11	11	0	16	-	23
GEMI	4	3	3	5	3	24	0	-
Total number of cases	48	363	556	136	59	37	208	22

Note: For sources and abbreviations, see table 1.
