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Negotiations on a draft international code of conduct
on the transfer of technology

Report of the Secretary-General of the United Nations Conference
on Trade and Development

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I. INTRODUCTION

1. Formal initiatives with a specific reference to the formulation of an international code of conduct on the transfer of technology started in 1972. 1/ However, the main impetus to the negotiations was provided by the General Assembly at its sixth special session in 1974, when it called for the formulation of an international code of conduct on the transfer of technology, corresponding to the needs and conditions prevalent in developing countries (see General Assembly resolution 3702 (S-VI), sect. IV). At its seventh special session, the Assembly adopted by consensus resolution 3362 (S-VII), providing that all States should co-operate in evolving a code of conduct, corresponding, in particular, to the special needs of the developing countries. An intergovernmental group of experts was established by the United Nations Conference on Trade and Development (UNCTAD) for this purpose and held six sessions between November 1976 and 1978. Subsequently, by its resolution 32/188 of 19 December 1977, the General Assembly decided to convene a United Nations Conference on an International Code of Conduct on the Transfer of Technology under the auspices of UNCTAD, to negotiate on the draft elaborated by the expert group, and to take all decisions necessary for its adoption. Since 1978, six sessions of the Conference have been held, the last of which was from 13 May to 5 June 1985.

2. The negotiations so far 2/ have led to a structure of the draft code, consisting of a preamble and the following nine chapters: chapter 1. Definitions and scope of application; chapter 2. Objectives and principles; chapter 3. National regulation of transfer of technology transactions; chapter 4. Restrictive practices; chapter 5. Responsibilities and obligations of parties to transfer of technology transactions; chapter 6. Special treatment for developing countries; chapter 7. International collaboration; chapter 8. International institutional machinery; and chapter 9. Applicable law and settlement of disputes. The substantive provisions of the code may be divided into those addressed to Governments (chaps. 3, 6, 7 and 8); and those addressed to parties (chaps. 4, 5 and 9). Most of the provisions of the draft code have been agreed upon, except for a few issues to be found in chapters 4 and 9.

3. With respect to chapter 4 of the draft code, there is a general understanding that it should consist of a chapeau and a list of specific practices to be avoided by parties to transfer of technology transactions. The drafting of clauses relating to 11 of these practices has been concluded, while the final formulation of three further clauses relating to grant-back provisions, export restrictions and restrictions after the termination of arrangements, remains outstanding. The formulation of the chapeau poses the problem whether, and if so in which way, the following four aspects should be included in the code: (a) the characterization of the practices to be avoided and the circumstances under which they should be avoided; (b) the criteria to be followed by parties or by competent authorities in the determination of whether a practice is restrictive or not for the purpose of the code; (c) the applicability of chapter 4 provisions to the transfer of technology transactions between related parties (affiliated enterprises); and (d) the relationship between the code provisions and applicable national or regional legislation.

4. The text of chapter 9 on applicable law and dispute settlement has not yet been formally drafted. However, the various texts considered during the negotiations consist of provisions dealing with choice of law, conciliation and arbitration. It appears that there is a broad consensus on the formulation of the provisions on conciliation and arbitration, but there are differences in the approaches proposed by regional groups with respect to the provision on the choice of law.

5. The other issues still outstanding are the definition and underlying concept of the term "international transfer of technology transactions" in chapter 1, the scope and duration of confidentiality obligations in chapter 5, the nature of the institutional machinery to be established within UNCTAD to deal with certain provisions relating to the code, and the nature and mandate of the review Conference, in chapter 8. For all these topics, compromise proposals have been submitted that seem to be close to resolving the outstanding questions.

6. Although the above paragraphs summarize the formal position relating to the issues outstanding in the draft code of conduct, the protracted negotiations have resulted in their being influenced by a number of factors in the external environment and have sometimes led to a questioning of some agreed provisions and even the relevance of some others.

II. CONSULTATIONS BY THE SECRETARY-GENERAL OF THE UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT AND THE PRESIDENT OF THE UNITED NATIONS CONFERENCE ON AN INTERNATIONAL CODE OF CONDUCT ON THE TRANSFER OF TECHNOLOGY

7. Since the last session of the Conference, pursuant to General Assembly resolution 40/184 of 17 December 1985, followed by Assembly resolutions 41/166 of 5 December 1986 and 42/172 of 11 December 1987, Assembly decision 43/439 of 20 December 1988, and Assembly resolution 44/216 of 22 December 1989, the Secretary-General of UNCTAD and the President of the United Nations Conference on an International Code of Conduct on the Transfer of Technology have held consultations with regional groups and interested Governments with the objective of delineating the scope of the issues outstanding in the draft code and undertaking a quest for appropriate solutions. Significant efforts have been made by all regional groups and interested Governments to overcome the differences in their respective approaches to the issues outstanding in the code, particularly in chapters 4 and 9. However, despite all efforts, no concrete results enjoying general consensus have so far emerged. 3/

8. As pointed out in the report of the Secretary-General of UNCTAD to the General Assembly at its forty-fourth session (A/44/55.), in the context of consultations carried out in 1989, the Secretary-General of UNCTAD, taking into consideration the views expressed by the member States and regional groups participating in the consultations, communicated to the regional groups on 9 February 1989 the way in which the Secretary-General of UNCTAD, in collaboration with the President of the Conference, intended to proceed, including the practical steps to be taken in the framework of these consultations. These steps were as follows:

(a) The secretariat of UNCTAD would prepare a study on the relevance of recent policy and legislative developments in the area of technology to the draft code of conduct, particularly the issues outstanding in the negotiations, and circulate it to Governments for comments;

(b) The Secretary-General of UNCTAD and the President of the Conference would assess the situation, based on the outcome of (a), and with the assistance, where appropriate, of experts in the field of technology, and consider it in their consultations with regional groups and Governments;

(c) The Secretary-General of UNCTAD would then make a report to the General Assembly based on (a) and (b) to enable the Assembly to take appropriate action on the negotiations on the draft code of conduct at its forty-fifth session.

9. General Assembly resolution 44/216 took note of the above-mentioned report (A/44/554) and invited the Secretary-General of UNCTAD to submit to the Assembly at its forty-fifth session a complete report, based on the outcome of consultations, so as to enable the Assembly to take appropriate action on the negotiations on the draft code of conduct. The above-mentioned study by the UNCTAD secretariat has now been completed and distributed to regional groups. During 1990, the Secretary-General of UNCTAD has continued his consultations with regional groups and interested Governments. At the time of writing the present report, these consultations are still going on and the Secretary-General of UNCTAD expects to supplement the present report with an oral account to the General Assembly of the latest developments.

III. RECENT CHANGES IN THE AREA OF TECHNOLOGY AND THEIR RELEVANCE TO THE DRAFT CODE OF CONDUCT

10. The findings of the study carried out by the UNCTAD secretariat confirm that important changes in the area of technology have occurred since the start of the negotiations on the draft code of conduct. Major technological advances in such fields as informatics, telecommunications, biotechnology and new materials have had or are likely to have a strong influence on the production of goods and services. Such advances have occurred mainly in the developed market-economy countries, resulting in a further widening of the technological gap among countries, particularly between the developed and the developing countries. The resultant research and development gap would need to be compensated for by increased international transfers of technology. However, there has been a growing concentration and collaboration among allied enterprises in developed market-economy countries, which may, to the extent that it excludes enterprises from developing countries, result in a reduction of sources of supply of technology (particularly new technologies) for these countries. It would further reinforce the bargaining power of technology suppliers, thus making it more difficult for technology acquirers, particularly in less technologically advanced countries, to obtain fair and equitable terms in technology transfer transactions. However, these trends should be set against other factors such as the greater incentive to transfer technology provided by higher research and development costs and faster innovation, the increase in the involvement of small and medium-sized enterprises

in international technology transfer and the growing ability of developing country enterprises to engage in such transfers.

11. Technological developments have also given rise to a growing emphasis on stronger protection of intellectual property rights and an increased resort to trade secrecy by technology creators and suppliers. The strategies of developed market-economy enterprises in this respect have often received the support of their Governments, both through national measures to provide stronger protection and through related international initiatives. Indeed, there appears to be a widespread tendency for Governments world wide to grant stronger intellectual property protection. Although the granting of higher standards of protection may be justified on grounds of providing incentives and securing investment returns for technology creators and innovators, other effects which may ensue from it, particularly in respect of international transfer and diffusion of technology, should not be overlooked; such effects would include stronger incentives to maintain import monopolies rather than to work or license the technology locally, higher royalties and more restrictive practices in licensing contracts. On the other hand, given the importance attached by suppliers to the protection régimes of potential recipient countries, there is evidence that stronger protection could lead to greater willingness to transfer technology, particularly new technologies. However, although stronger protection may be considered a necessary condition for greater transfer, particularly of more advanced technologies, it is far from being a sufficient condition, given the importance of several other factors.

12. There has also been a universal trend towards liberalization of controls on restrictive practices in technology transfer transactions. In developed market-economy countries, this has manifested itself, *inter alia*, in greater reliance upon the doctrine of the rule of reason. In developing countries, there has been a relative shift from concerns relating to the adverse effect of restrictive practices on the quality of technological acquisition and diffusion, to concerns about the perceived "disincentive" effects of controls upon the quantity of technology acquired. There has also been a realization that a "good" contract from the legal and cost point of view does not necessarily ensure proper technology transfer and assimilation. It is possible that stronger protection for technology and the liberalization of controls on restrictive practices will result in the prevalence of more restrictive practices in technology transfer transactions. However, the fact that, in some developing countries, acquiring enterprises have learned to bargain better and now possess more knowledge of the technologies they require might partially help to offset this trend. It would, of course, depend upon the abilities of acquiring firms and the level of development of acquiring countries.

13. The economic and financial problems in many developing countries, the relative decline in technology flows to these countries and the importance attached to new technologies have led to much greater efforts by them to attract and promote technology transfer and foreign investment, which contrast with the greater regulation and control of such activities in the past. The range of new policy approaches adopted include more active search for and co-operation with potential foreign investors and suppliers; more investment incentives; and efforts to provide more advisory services to local enterprises in respect of selection of technologies

and suppliers and negotiation of contracts. This promotional approach has also aimed at encouraging foreign investment and transfer of technology by removing those policy elements perceived as disincentives by foreign partners. There has been a similar extensive liberalization of policies towards foreign investment in the countries of Eastern Europe. The overall policy trend is towards less control over foreign direct investment or over the contractual aspects of technology transfer, and more promotion and co-operation.

14. Indeed, a trend towards more co-operation in technology generation and transfer can be observed in all countries and at all levels. At the governmental level, a large number of bilateral agreements on science and technology, investment and double taxation have been concluded. As indicated above, co-operation among enterprises, especially in developed market economy countries, has also intensified. In technology transfer arrangements, there is now often closer involvement between suppliers and recipients, leading to more linkage of technical services with different channels and forms of transfer, and lesser reliance on arms'-length contractual forms such as vertical licensing or turn-key contracts. There is also more use of joint ventures and collaborative arrangements as channels for technology transfer.

15. The necessity to co-operate closely on technology matters appears to have increased world wide due to the growth in the cost of developing new technology, the difficulties in its appropriation, and the increased complexity of its transfer. Meanwhile, the need for technology transfer to developing countries has also intensified as a result of the widening of the research and development gap between them and developed countries, the resource constraints they face and the increasingly decisive importance of technology in economic development and international trade. Moreover, the recent international initiatives for strengthening the world-wide protection of intellectual property rights, in order to enable technology creators to better appropriate the fruits of their investment, have increased the immediate relevance and need for corresponding international action on the "dynamic" aspects of such appropriation, so as to facilitate the transfer and diffusion of proprietary technology in the wider interests of both suppliers and potential recipients. Such action would entail the elaboration of international rules and principles aimed at promoting co-operation, both at the governmental and enterprise levels, in the diffusion and transfer of technology. A universally applicable framework of rules and principles would not only bring about a more balanced approach to international technological co-operation, making it easier for technology acquiring countries to accept the granting of higher standards of protection, but would also enhance the predictability and transparency needed for the free flow of technology among nations, thus benefiting not only technology recipients but also technology suppliers. It would also be indicative of a willingness not to exclude the interests of any group of States in the context of efforts to establish universally applicable norms and standards in the area of technology.

16. As an attempt to elaborate a framework of rules and principles aimed at promoting international co-operation in the area of technology, the negotiations on an international code of conduct on the transfer of technology do not appear to have lost their intrinsic value to the international community. However, although

the basic concerns that inspired the structure and coverage of the draft code may still exist, the code negotiations would also need to take fully into account the needs and concerns which have emerged in recent years, and to reflect the important policy shifts which have taken place both in developed and developing countries with respect to foreign investment, competition law, intellectual property protection and technology transfer. These include the pressures towards stronger intellectual property protection, the growing technological collaboration among enterprises and between enterprises and Governments to promote technological innovation, the increasing emphasis in government policies on attracting foreign investment and promoting technology transfers, the relaxation of controls on restrictive practices, the protection régimes and licensing practices relating to new technologies, the increased concerns about the effects of technology upon the environment, health or safety, and the growing accent on advisory services and assistance to local enterprises to ensure better selection and absorption of technologies. There is also a need for a wider scope for participation of developing country enterprises in technological co-operative schemes and in joint ventures on research and development. The taking into account of such changes may involve a relative shift in emphasis from the "control" approach, on which the code of conduct was to be based at the inception of the negotiations, to a "co-operative" approach capable of facilitating the flow of technology among nations, although there continues to be a need for both approaches in the code.

17. The protracted negotiations on the code have seen an evolution in the positions of all regional groups in respect of the scope and contents of the code provisions. However, the need to strike a proper balance between private party autonomy and public interest has proved a major stumbling block throughout the negotiations in various parts of the text of the code, particularly chapters 4 and 9. This was mainly owing to the divergent conceptual approaches with respect to technology transfer agreements adopted by different regional groups. Recent policy and legislative developments in many countries might, however, contribute to a narrowing of the gap in conceptual approaches. Other elements susceptible of reconciling similar past differences might also be found among the legislative and policy developments which have occurred, as well as from the broader changes in respect of international economic relations. All of them will need to be properly utilized to bring the code negotiations in line with the present realities on international technology transfers, so as to facilitate the achievement of a common understanding of the rules and principles that should serve as a basis for international co-operation in this domain.

18. The above-mentioned secretariat study 4/ was considered by a number of experts invited by the Secretary-General of UNCTAD to provide advice in their personal capacity on the nature and consequences of recent changes in the area of technology and their relevance to the code negotiations, and to suggest appropriate solutions to the issues outstanding, as well as any other possible ways of advancing the negotiations. The experts met at Geneva from 3 to 6 September 1990 and delivered a report to the Secretary-General of UNCTAD at the end of their meeting. The experts reaffirmed the continued relevance and utility of an international code of conduct on the transfer of technology. They were of the view that, in order to achieve conclusive results on the code negotiations, it was necessary to adapt the draft code of conduct to the important changes and developments that have occurred in

recent years in the area of technology. To this end, they have suggested some specific ideas and approaches that could be considered by Governments in any future action on the code negotiations. Concrete recommendations were also made in respect of the unresolved issues in the draft code of conduct. Relevant extracts from the experts' report to the Secretary-General of UNCTAD are set out in the annex to the present report.

**IV. SUGGESTIONS BY THE SECRETARY-GENERAL OF THE UNITED NATIONS
CONFERENCE ON TRADE AND DEVELOPMENT FOR FURTHER ACTION ON
THE CODE NEGOTIATIONS**

19. As noted above, the Secretary-General of UNCTAD is continuing consultations with regional groups and Governments regarding further action relating to the negotiations, using as a basis the findings and conclusions of the UNCTAD secretariat study, and the observations made by the experts. The Secretary-General will orally inform the General Assembly at its forty-fifth session of the outcome of these consultations.

Notes

1/ See resolution 33 (III) adopted at the third session of the United Nations Conference on Trade and Development in 1972.

2/ See UNCTAD document "Draft International Code of Conduct on the Transfer of Technology" (TD/CODE TOT/47).

3/ See the reports of the Secretary-General of the United Nations Conference on Trade and Development (TD/CODE TOT/50, TD/CODE TOT/51 and TD/CODE TOT/53).

4/ See UNCTAD document "The relevance of recent developments in the area of technology to the negotiations on the draft International Code of Conduct on the Transfer of Technology" (TD/CODE TOT/55) to be published shortly.

ANNEX

Extracts from the report to the Secretary-General of the United Nations Conference on Trade and Development of the informal expert group meeting on the draft international code of conduct on the transfer of technology

1. The study by the UNCTAD secretariat of recent developments in the area of technology and their relevance for the negotiations on an international code of conduct on the transfer of technology is a very useful review of the many changes that have occurred in the field of transfer of technology in recent years. It notes that major technological advances have occurred in such fields as informatics, telecommunications, biotechnology and new materials, and have had or are likely to have a strong influence on the production of goods and services. Such advances have occurred mainly in the developed market-economy countries, resulting in a further widening of the technological gap among countries, particularly between the developed and the developing countries.
2. Technological developments have also given rise to new methods of intellectual property protection, as well as to new practices in technology transfer arrangements. The strategies of developed market-economy enterprises in this respect have often received the support of their Governments, both through national measures to provide stronger protection and through related international initiatives. Indeed, there appears to be a widespread tendency for Governments world wide to grant stronger intellectual property protection. There has also been a universal trend towards liberalization of controls on restrictive practices in technology transfer transactions. In developed market-economy countries, this has manifested itself, *inter alia*, in greater reliance upon the rule of reason. In developing countries, a relevant factor behind this trend has been a relative shift from concerns relating to the adverse effect of restrictive practices on the quality of technological acquisition and diffusion, to concerns about the perceived "disincentive" effects of controls upon the quantity of technology acquired.
3. The economic and financial problems in many developing countries, the relative decline in technology flows to most of these countries and the importance attached to new technologies have indeed led to much greater efforts by them to attract and promote technology transfer and foreign investment, which contrast with the greater regulation and control of such activities in the past. The range of new policy approaches adopted include more active search for and co-operation with potential foreign investors and suppliers; more investment incentives; and more advisory services to local enterprises in respect of selection of technologies and suppliers and negotiation of contracts. This promotional approach has also aimed at encouraging foreign investment and transfer of technology by removing those policy elements perceived as disincentives by foreign partners. There has been a similar extensive liberalization of policies towards foreign investment in the countries of Eastern Europe. The overall policy trend is towards less control over foreign direct investment or over the contractual aspects of technology transfer and more promotion and co-operation.

4. Indeed, a trend towards more co-operation in technology generation and transfer, motivated by considerations of the increasing cost and complexity of technology, can be observed in all countries and at all levels. At the governmental level, a large number of bilateral agreements on science and technology, investment and double taxation have been concluded. Co-operation among enterprises, especially in developed market economy countries, has also intensified leading, inter alia, to more use of joint ventures and collaborative arrangements as channels for technology transfer.

5. The findings summarized above indicate that recent economic, technological and policy developments have rendered even more relevant concerted international action on the creation of a global framework of norms and standards on the transfer of technology. However, for the negotiations initiated in the 1970s to formulate an international code of conduct on the transfer of technology to serve as such a global framework, the important changes described in the study will have to be taken into account. This is all the more important because, although the code of conduct may still be considered a useful and relevant instrument, the demand for it appears to have weakened during the last few years. Nevertheless, the code could still continue to fulfil a useful function. First, it would serve as a framework for international co-operation in the area of transfer of technology. Secondly, it would provide guidelines for national legislation and for contractual relationships regarding transfer of technology. Thirdly, the adoption of multilaterally-agreed rules on restrictive practices in transfer of technology transactions would help to control abuse of market power, especially in the context of stronger protection of intellectual property rights. It would be particularly useful in view of the fact that national rules relating to competition would not normally apply to behaviour by enterprises that has no effect on the domestic market. Fourthly, it would be of help to developing countries that at present have no competition rules in the field of transfer of technology or similar rules for the control of abusive practices in licensing agreements.

6. Moreover, the relevance of a code of conduct on the transfer of technology has been further enhanced by recent international initiatives in closely related areas, such as those on trade-related aspects of intellectual property rights and on the access to and transfer of environmentally sound technologies to developing countries.

7. In order to adapt the draft code to the important changes and developments that have occurred in recent years, consideration should be given to the following approaches:

(a) In future code negotiations, the mutuality of interests between parties to transfer of technology transactions, as well as Governments, should be stressed;

(b) Although there is need for both "control" and "co-operative" provisions in the code, more emphasis is called for, at the present stage, on co-operation and promotion of technology transfer, which could be manifested by more specific rules on intergovernmental and inter-enterprise co-operation on, inter alia, collaborative research and development schemes or programmes, joint ventures, and the promotion of innovation in the least developed countries. In this context,

specific programmes could be elaborated to enable countries to benefit from international technological co-operation;

(c) The main thrust of the code provisions relating to the conduct of parties should be the control of the abuse of economic power. It should lay down basic principles of competition (anti-trust) in the area of licensing and technology transfer;

(d) It should be clarified that the scope of application of the code would cover new technologies and new forms of technology transactions, such as those relating to biotechnology, computer software and layout-designs of integrated circuits. Illustrations of channels and contractual forms, such as joint ventures that may possibly be used for such transfer of technology, should also be provided;

(e) Both the universal applicability and North-South character of the code should be maintained. Additional support could be given to developing countries to strengthen the bargaining power of their enterprises;

(f) Consideration should be given to the possible extension of the code provisions to cover: (i) environment; (ii) safety of products and processes; and (iii) consumer interest.

8. In case there is no agreement on the incorporation of the above suggestions in the draft code of conduct, the following options may be considered in order to conclude the negotiations:

(a) The possibility of adopting a set of agreed rules and principles consisting of those provisions of the draft code relating to the conduct of parties to transfer of technology transactions (in particular, chaps. 4 and 5);

(b) A code consisting of the agreed provisions of the draft code of conduct;

(c) Further attempts to resolve the outstanding issues in the draft code resulting in the adoption of the code as presently structured.

9. In chapter 3, consideration should be given to a more precise reflection of the reference to international law in the text.

10. In the search for a solution to the issues outstanding in chapter 4, a distinction should be made between the chapeau and the individual provisions: (a) with regard to the chapeau, a reference to the restrictive business practices code should be a useful basis, taking into account the specificities of the transfer of technology transactions. Unlike other chapters of the code, chapter 4 need not apply to conduct between parent and subsidiary; (b) the 14 provisions on individual practices should be maintained for further consideration, taking into account recent trends relating to the greater use of the rule of reason as a yardstick in the treatment of individual restrictive practices. While the competition test could provide a substantial basis for dealing with the overall problems in chapter 4, it is recognized that the development test has a role to play in national laws, especially as regards the control of other practices that may affect the technological development of developing countries.

11. In chapter 5, the concept of confidentiality contained in the proposal by the President of the Conference appears to be appropriate.

12. With regard to applicable law in chapter 9, the following options should be considered: (a) the omission of the provision on applicable law (9.1); (b) the concept contained in the proposal by the President of the Conference could be retained; (c) further consideration could be given to the proposals by the regional groups.

13. If the approaches for further consideration of the code suggested above were to be retained by Governments, there might be a need for a preparatory process before resuming negotiations on the code.

14. To that end, it is recommended that the UNCTAD secretariat undertake further studies on some of the specific issues mentioned above in order to facilitate their consideration by Governments. Such studies should, inter alia, examine the recent changes in competition law and policy and their relevance to the restrictive practices covered by the draft code and the modalities of licensing and transfer of technology in the areas of biotechnology and computer technology.
