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EIGHTH UNITED NATIONS CONGRESS ON THE PREVENTION OF CRIME AND THE TREATMENT OF OFFENDERS

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Item 4 of the provisional agenda*

CRIMINAL JUSTICE POLICIES IN RELATION TO PROBLEMS OF IMPRISONMENT,
OTHER PENAL SANCTIONS AND ALTERNATIVE MEASURES (TOPIC II)

Computerization of the administration of criminal justice

Report of the Secretariat

*A/CONF.144/1.

CONTENTS

INTRODUCTION

1.   In the early 1970s, when United Nations action in the area of computeriza-
tion of public administration began, the first reports of the Secretary-General
on the matter emphasized the complexity of the question of computerization,
which was largely restricted to national computing centres. 1/ As cheaper,
smaller but more powerful computers emerged, the computerization of public
administration became more widespread. An increasing variety of equipment and
programs have made it possible to conceptualize, plan and implement computer-
ization in various administrative areas, including the administration of
criminal justice.

2.   The purpose of the present report is to present the role of computeriza-
tion in the adminstration of criminal justice as a means of improving its
efficiency, taking into account the fair and humane treatment of offenders.

3.   A review of the prerequisites for computerization is presented in
section II of this report. Modalities of international co-operation in the
computerization of the management of criminal justice are provided in
section III. Both discussions are based on the deliberations of an ad hoc
expert group meeting on the application of computers in the administration
of criminal justice, held at Ottawa from 27 November to 1 December 1989. The
modalities include: (a) development of guidelines for decision makers and
users of computer output; (b) strengthening of the world-wide United Nations
Criminal Justice Information Network (UNCJIN); and (c) preparation of tech-
nical co-operation involving the education and training of criminal justice
staff and the development of technical co-operation projects for introducing
computers in the management of criminal justice.

I.   UNITED NATIONS ACTION IN THE AREA OF COMPUTERIZATION OF THE ADMINISTRATION OF CRIMINAL JUSTICE

A.   Legislative background

4.   The Fifth United Nations Congress on the Prevention of Crime and the
Treatment of Offenders, held at Geneva from 1 to 12 September 1975, was the
first United Nations meeting of criminal justice experts and practitioners
to call attention to new methods of combating crime and treating offenders
emerging as a result of scientific and technical progress. 2/ The Sixth
United Nations Congress on the Prevention of Crime and the Treatment of
Offenders, held at Caracas from 24 August to 5 September 1980, recognized
the importance of valid information, particularly statistical information,
in understanding crime and the operation of justice systems. 3/

5.   Growing realization of the importance of information management in criminal
justice led the Seventh United Nations Congress on the Prevention of Crime and
the Treatment of Offenders, held at Milan from 26 August to 6 September 1985,
in its resolution 9 on the development of crime and criminal justice infor-
mation and statistical systems, to invite interested Member States to provide
for measures to enhance the transfer of information within criminal justice
agencies, and between such agencies and the community; and to urge interested
Member States to take steps to protect the rights of citizens concerning the
privacy of individually identifiable data contained in criminal justice infor-
mation systems. In the same resolution, the Seventh Congress requested the
Secretary-General to initiate work on the use of information systems in the
administration of criminal justice and to report theron to the Committee on
Crime Prevention and Control. 4/

6. The Manual for the Development of Criminal Justice Statistics, 5/ published in 1986, provided basic guidelines on the collection and processing of crime-related data, including their computerization. The Manual, together with a publication entitled Modern Management and Information Systems for Public Administration in Developing Countries, 6/ issued by the Department of Technical Co-operation for Development of the Secretariat, laid the groundwork for United Nations efforts to computerize the management of criminal justice systems.

7. The Committee on Crime Prevention and Control, at its ninth session, held at Vienna from 5 to 14 March 1986, examined the report of the Secretary-General on the initial review of the functioning and programme of work of the United nations in the field of crime prevention and criminal justice (E/AC.57/1986/4).

8. Upon the recommendation of the Committee at its ninth session, the Economic and Social Council, in its resolution 1986/11, endorsed the recommendations made by the Secretary-General in paragraph 82 of his report and invited the Secretary-General to make all efforts to establish, in co-operation with the United Nations institutes and other entities concerned, a global crime and criminal justice information network, with the Crime Prevention and Criminal Justice Branch as a focal point, including a mechanism for the centralization of inputs from non-governmental organizations and scientific institutions.

9. In support of the United Nations programme of computerization of criminal justice, the European Seminar on Computerization of Criminal Justice Information Systems: Realities, Methods, Prospects and Effects, organized jointly by the Helsinki Institute for Crime Prevention and Control, affiliated with the United Nations (HEUNI), and the Ministry of Justice of Poland, was held at Popowo, Poland, from 18 to 22 May 1987. The results of the Seminar were summarized in a special double issue of the Crime Prevention and Criminal Justice Newsletter on the computerization of criminal justice information 7/ and in a publication issued by HEUNI. 8/ Those publications are instrumental in the development of recommendations on the basic issues in the computerization of the administration of criminal justice.

10. Those recommendations were considered by the Interregional Preparatory Meeting for the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders on topic II: "Criminal justice policies in relation to problems of imprisonment, other penal sanctions and alternative measures", held at Vienna from 30 May to 3 June 1988. The recommendations were subsequently incorporated by the Meeting into its draft resolution on the management of criminal justice and the development of sentencing policies, in the section on management and computers. The Meeting recommended to the Committee on Crime Prevention and Control the submission of the draft resolution for adoption by the Eighth Congress (A/CONF.144/IPM.4, pp. 6-7).

11. The Committee on Crime Prevention and Control, at its tenth session, held at Vienna from 21 to 31 August 1988, reviewed the report of the Secretary-General on the review of the functioning and programme of work of the United Nations in crime prevention and criminal justice (E/AC.57/1988/13) and a conference room paper on the establishment of a United Nations criminal justice and crime prevention information network (E/AC.57/1988/CRP.8).

12. The Council, in its resolution 1989/68, took note of the efforts made towards the establishment of a global crime prevention and criminal justice

information network* and requested the Secretary-General to secure adequate
resources for its full realization, including the recruitment of a specialist
to implement it, ensuring access to all potential users and taking advantage
of existing information networks. In the same resolution, the Council urged
Governments in the process of improving the management of criminal justice to
consider the use of suitable information technology, including electronic data
processing, and requested the Secretary-General to develop guidelines and
training materials on the use of information technology in the management of
criminal justice for interested Member States, and to seek additional extra-
budgetary resources to expand that work.**

B. The mandate and purpose of the workshop on computerization of the administration of criminal justice

13. In its resolution 1989/69, the Council recommended that work should con-
tinue on the development of guidelines for computerization of the administra-
tion of criminal justice and that a workshop for the discussion of national
experiences should be held within the framework of item 4 of the provisional
agenda for the Eighth Congress, entitled "Criminal justice policies in relation
to problems of imprisonment, other penal sanctions and alternative measures
(topic II)", the report of which should be submitted to the committee of the
Eighth Congress dealing with that item. The responsibility for the organiza-
tion of the workshop was assigned to HEUNI. The General Assembly, in its
resolution 44/72, urged Member States to contribute to the workshop by prepar-
ing research and technical papers and other information enabling a substantive
and fruitful exchange of national experiences in computerization of the admin-
istration of criminal justice.

14. The ad hoc expert group meeting held at Ottawa in 1989, which was spon-
sored by the Government of Canada as a contribution to the elaboration of item
4 of the provisional agenda for the Eighth Congress, laid the basis for the
workshop on computerization of the administration of criminal justice and began
the process of developing proposals for a long-term United Nations plan of

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*The phrase, global crime and criminal justice information network, used
in General Assembly resolution 44/72 and in Council resolutions 1986/11 and
1989/68, refers to UNCJIN and its envisaged development as part of the entire
computerization programme.

**The development of other guidelines involving the protection of privacy
was initiated within the framework of the United Nations human rights pro-
gramme. On the recommendation of the Commission on Human Rights, the Economic
and Social Council, in its resolution 1989/78, took note of resolution 1988/29
of the Sub-Commission on Prevention of Discrimination and Protection of Minor-
ities and of Commission on Human Rights resolution 1989/43 on guidelines on
the use of computerized personal files. In that same resolution, the Council
decided to transmit to the General Assembly the final report of the Special
Rapporteur of the Sub-Commission, Mr. Louis Joinet, on guidelines for the
regulation of computerized personal data files (E/CN.4/Sub.2/1988/22). The
final report of the Special Rapporteur was annexed to the report of the
Secretary-General on guidelines for the regulation of computerized personal
data files (A/44/606), which contained the views expressed thereon by Member
States. The General Assembly, in its resolution 44/132, requested the
Commission to examine and, if necessary, to modify the revised draft guide-
lines before transmitting them, through the Economic and Social Council, to
the General Assembly at its forty-fifth session for final adoption.

action in that area, which were submitted for consideration by the Committee on Crime Prevention and Control at its eleventh session, held at Vienna from 6 to 16 February 1990.

15.   In order to further elaborate the substantive terms of reference for the discussion on that question during the workshop, the Committee, at its eleventh session, reviewed all the observations on computerization made by the inter-regional and regional preparatory meetings for the Eighth Congress* and by the ad hoc expert group meeting held at Ottawa in 1989.

16.   In its draft decision 11/105, the Committee decided to recommend to the Council to transmit to the Eighth Congress a draft resolution entitled "The management of criminal justice and the development of sentencing policies". In section F of that draft resolution, the Eighth Congress would, inter alia, request the Secretary-General: (a) to develop a data base of innovative programmes for the computerization of criminal justice systems that might be applicable to systems in other Member States; (b) to facilitate the exchange of information, experience and personnel between jurisdictions that are in the process of computerizing some aspect of their criminal justice systems and those that are at a more advanced stage of that process; (c) to disseminate information on relevant experiences in that area.

17.   In its draft decision 11/103, the Committee decided to recommend to the Economic and Social Council to transmit to the Eighth Congress a draft resolution entitled "Computerization of criminal justice". In that draft resolution, the Eighth Congress would request the Secretary-General to establish, in co-operation with the network of regional and interregional institutes, a technical co-operation programme for the systematization and computerization of criminal justice in order to offer training, assess needs, formulate and execute specific projects, and to report on the results achieved to the Ninth United Nations Congress on the Prevention of Crime and the Treatment of Offenders.

18.   In view of a multitude of aspects covered by the various United Nations bodies dealing with the question of computerization in criminal justice, HEUNI accepted the responsibility for organizing a workshop on computerization at the Eighth Congress. Following consultations with the Crime Prevention and Criminal Justice Branch of the United Nations Office at Vienna, Centre for Social Development and Humanitarian Affairs, and action at the Fifth and the Sixth Annual Joint Meetings on Programme Co-ordination in the Field of Crime Prevention and Criminal Justice, held at Riyadh on 18 January 1989 and from 13 to 15 January 1990, respectively, at the invitation of the Arab Security Studies and Training Centre at Riyadh, it was decided that the workshop on computerization would have three components: a one-day workshop for a general exchange of views between national delegations and other participants of the

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*See, in particular, the report of the Asia and Pacific Regional Preparatory Meeting for the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held at Bangkok from 10 to 14 April 1989 (A/CONF.144/RPM.1, para. 32); the report of the European Regional Preparatory Meeting for the Eighth Congress, held at Helsinki from 24 to 28 April 1989 (A/CONF.144/RPM.2, paras. 23-24); the report of the Latin American and Caribbean Regional Preparatory Meeting for the Eighth Congress, held at San José from 8 to 12 May 1989 (A/CONF.144/RPM.3, para. 39); and the report of the African Regional Preparatory Meeting for the Eighth Congress, held at Addis Ababa from 5 to 9 June 1989 (A/CONF.144/RPM.5, para. 54).

Eighth Congress, a three-day seminar to discuss computerization projects in the light of recent experiences, and a demonstration on software applications in the management of criminal justice.

19. The one-day workshop will provide an opportunity for participants to consider some of the general issues in the introduction of computer technology in the administration of criminal justice and the development of proposals for a long-term United Nations plan of action to assist Member States in that field. The three-day seminar will provide an ·opportunity for an in-depth review of some of the problems encountered in introducing computer technology into the administration of criminal justice. The software demonstration, which may run for the duration of the Eighth Congress, will allow interested parties to demonstrate practical computer applications in the administration of criminal justice.

20. The English text of a background document for the workshop, a manual on the effective use of computers in criminal justice, will be available for comments by participants. An executive summary of the manual is being prepared in all languages by the Statistical Office of the Secretariat. The manual, which will be published after the Eighth Congress, was discussed at length at the ad hoc expert group meeting held at Ottawa in 1989 and further refined by a meeting of experts organized by the Home Office of the United Kingdom of Great Britain and Northern Ireland, which was held in London from 2 to 4 July 1990.

C. Results of the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies related to computerization of the administration of criminal justice

21. According to the replies to the supplement to the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies (1980-1986), which were submitted by only 28 Member States (4 from Africa, 8 from Asia and the Pacific, 11 from Europe and 5 from Latin America), the most needed forms of United Nations assistance to criminal justice administrators should involve, inter alia:

(a) Promotion of study tours to countries more advanced in the field of criminal justice and the exchange of experiences between countries;

(b) Establishment of an international crime prevention and criminal justice information system;

(c) Provision of technical and staff assistance and staff training in setting up an information infrastructure in this field;

(d) Facilitation of contact between Member States to obtain information on systems for statistics on offences, including data on victimization;

(e) Provision of information concerning international and regional conferences; workshops on prison administration; research; legislative developments etc.;

(f) Establishment of standards for the use of compatible hardware and software.

22. Since 1988, efforts have focused on gathering information on national experiences. Those efforts have resulted in the publication of the Directory of Computer Applications in Criminal Justice Information, which is being

submitted by HEUNI to the workshop as a background document reflecting the developments in European countries.

D. Rationale for and aims of applying computer technology in the management of criminal justice

23. The interest in the computerization of the administration of criminal justice arises from the wide range of potential benefits it offers, some of which are described below.

1. Increase in efficiency of criminal justice operations

24. Computerization can increase overall efficiency in criminal justice operations by reducing delays, improving the use of resources, and limiting opportunities for human error. Computerizing the records of each criminal case, for example, records of deadlines for decisions to be taken or implemented, can help criminal justice officials to discharge their duties in a more timely fashion. It can also improve public perception of the judicial process and the quality of justice.

2. Assistance in decision-making

25. Computerization can assist, but not replace, the decision-making process by providing access to more timely and accurate information on individual cases, for example, in scheduling cases and assigning them to judges and in preparing decisions on bail and on sentencing. Computerization can also provide judges, lawyers and other criminal justice practitioners with rapid access to reference material, such as statutes and case-law.

26. Recent applications of expert systems in law enforcement, software packages that use artificial intelligence techniques to draw conclusions from facts presented by the user, offer additional advantages that facilitate the decision-making process in individual cases. Although expert systems do not and should not provide definitive solutions, they may be helpful in command and control functions in law enforcement (e.g. dealing with simultaneous requests for service), crime-solving (the creation of suspect profiles), computer-aided instruction and programme planning and design. The use of expert systems may also improve legal training, for example, by providing police with advice on the type of information required by prosecutors to reduce the rate of case attrition. 9/

3. Improvement in inter-agency co-ordination

27. Computerization can promote inter-agency co-ordination at all levels and reduce the incidence of errors by making possible the rapid and accurate transfer between agencies of details on selected offenders and cases. Offender-based transactional statistics can thus be utilized system-wide in the effective transmission of data on particular offenders.

4. Improvement in the availability of analytical information

28. Computerization can provide policy makers and managers with the possibility of monitoring the current operations of individual units, agencies and the criminal justice system as a whole by analysing up-to-date statistics. Such statistical analysis is also useful for obtaining aggregate data to serve as a basis for policy evaluation. The law enforcement services (police, border control and customs control) are usually among the first to benefit from such an innovation and are likely to generate input for other criminal

justice agencies. At the prosecution and court levels, monitoring statistics and key indicators can be useful in making operational and strategic decisions, such as decisions on the allocation of cases to practitioners and on project- ing work-loads on the basis of processed cases.

5. Improvement in efficiency of work of administrative units

29. At the operational level, computerization can be useful in the staff- intensive and largely routine administrative and clerical tasks of individual agencies, such as the preparation of various documents, the management of fines and accounting, thereby developing the potential for greatly increased efficiency.

6. Standardization and exchange of information

30. If common standards are adopted for the information stored in computer systems, computerization can make it possible for statistical and monitoring information from each agency to be examined in relation to that of other agencies.

31. Because only standardized information can be meaningfully shared, the adoption of common definitions would facilitate the development, exchange and comparison of key performance indicators of criminal justice systems. Data in a machine-readable format may be easily transferred and analysed.

32. Progress at the international level is, however, directly dependent on national efforts to computerize the administration of criminal justice. Member States of the Council of Europe, for instance, which are relatively advanced in that area, have a forum in which to share experiences and to develop common standards and guidelines, 10/ all of which may be of considerable interest to the United Nations system.

II. PREREQUISITES FOR COMPUTERIZATION

A. Identification of factors important for successful computerization

33. Whether or not a computerization project succeeds depends on factors related to the development of the criminal justice system itself and on the level of economic or social development of the country in question. Introduc- ing computerization into the management of criminal justice may expose weak- nesses in its structure and organization. 11/

34. Factors that are important for successful computerization include commit- ment at the executive level to computerization projects; stability in poli- cies, practices and procedures governing the delivery of justice services and the provision of administrative support to them; a framework of co-operation involving the administration of justice on the one hand and related social and non-justice systems on the other; and consistency in terminology and defini- tions. Finally, there must be a comprehensive national policy for developing and introducing computer-assisted systems and procedures.

35. A direct correlation may exist between the above-mentioned factors and the effectiveness of computerization in the management of criminal justice. For example, executive-level commitment to a computerization project is neces- sary in order to ensure that the project will continue to receive funding over

a number of years despite changing and competing priorities and circum-
stances. 12/ The organizational units involved should be clearly identified
and their interrelationship and division of labour should be understood and
accepted.

36. At the interregional level, and within the United Nations system, com-
puterization may involve, in addition to standardizing definitions and key
performance indicators of criminal justice operations, designing model soft-
ware packages facilitating the intra- and inter-agency transfer of crime-
related data and providing technical assistance to developing countries, based
on the experience of developed countries.

B. Role of planning in the computerization process

37. Efficient information systems require good planning at the national level.
Local computerization plans should be properly designed and implemented to
ensure that they meet their objectives in terms of cost, quality, timeliness
and possible interfaces with other public administration information systems.
Without planning, there is no firm basis for funding; there is no bench-mark
for measuring operating efficiency; purchases may be made without the benefit
of competition; and the needs of users may not be satisfied on time, if at
all. 13/

38. In preparing such plans, consideration should be given to the merits of
proceeding with a system of co-ordinated justice in contrast to a series of
parallel, justice-sector-specific (police, courts, corrections etc.) systems.
The integration of criminal justice operations requires additional efforts on
the part of decision makers who, in planning a system-wide flow of information,
need to be more receptive to the information needs of other agencies, which
depend on their operational and policy-oriented tasks.

39. The computerization process should be based on a phased and incremental
approach, not only within the overall computerization plan, but also within
the development project of each specific system. Each phase of work should be
tailored to the resources and time available in order to avoid overload. Each
phase should also take into account the available or planned telecommunications
facilities. In addition, the costs and benefits of building a custom-designed
system, in contrast to transferring technology from elsewhere or tailoring
packaged systems, should be examined.

C. Management issues

40. Planners and potential users may be constrained in their approach to
computerization by the manner in which tasks were handled in the past, leading
to computerization of inefficient and inappropriate processes rather than the
development of systems that tackle overall agency objectives. Plans may call
for systems that are too complex for the technical staff to develop or for
agency staff to operate, leading to systems that are never completed or that
fall into disuse. It is therefore important to plan computerization in
stages, thus gradually gaining the experience needed to attain the goals of
the project.

41. Delegating too much responsibility to technical specialists or private
sector consultants may result in loss of control or in too much emphasis being
placed on the technical aspects of the system rather than on its purpose or
objectives. In addition, inadequate project management and control may lead
to missed deadlines, cost overruns or failure to achieve the expected objec-
tives on time. These, in turn, may result in loss of the users' commitment to
the system.

42. Inappropriate hardware and/or software may result in systems with insufficient capacity, poor performance or limited scope for future expansion or in proprietary systems that force users to use certain manufacturers' equipment, limiting future development. Inadequate funding of the project, usually the result of setting aside insufficient resources for support and training, may lead to corners being cut and to essential components of the project being omitted. Insufficient training may lead to inefficient use of the system.

43. Adequate consideration should be given to the effect of computerization on staff and on the organization. Failure to do so could result in an inefficient system, anxiety among staff or staff disputes, which, in turn, may lead to rejection of the system.

44. Successful computerization projects invariably have lasting implications for the internal structure and the nature of authority in a criminal justice agency. They may alter:

(a) The form of communication, removing the need for some communication (for example, some information may have been transferred by word of mouth before computerization);

(b) The nature of some of the tasks undertaken by staff, removing the need for some of the tasks;

(c) The lines of communication between individuals;

(d) The extent to which certain individuals' experience or knowledge is required for some tasks;

(e) The relationship between individuals and the overall task of the organization (i.e. how tasks are grouped together);

(f) The number or qualifications of the staff required to perform certain types of work.

45. In sum, computerization may lead to changes in traditional managerial tasks and responsibilities that will require new skills and may make some administrative jobs obsolete. These changes may lead to new managerial issues that will have to be recognized and dealt with.

D. Assessment of computerization needs

46. Computerization is an expensive and lengthy process that may fail to achieve the desired benefits. A basic prerequisite for the successful introduction of computer technology is, therefore, an assessment of computerization needs, in this case, the needs articulated by interested Member States requiring assistance.

47. It may be difficult to assess such needs in some countries because there may be no one available who is truly informed about, and experienced in, the computerization of information systems in the management of criminal justice.

48. It is quite possible that computerization may not be necessary; for example, a manual card index system might meet the users' needs quite well in some cases. Often, instead of a phased approach, projects call for too much computerization too soon. Consequently the projects are too large to be manageable, expectations cannot be met, and the degree of complexity in the

system design exceeds the capabilities of technical and user staff. Planners
may underestimate the complexity and specialized nature of criminal justice
work and assume that general commercial software packages can be applied to
such work, a mistake often made by private sector consultants. 14/ One of the
objectives of the workshop on computerization of the administration of criminal
justice is to exchange experiences with such errors in planning and implement-
ing an automated system.

49. Failure to examine the users' needs may lead to attempts to computerize
without a clear overall strategy, either at the agency level in the criminal
justice system as a whole. The assessment of needs may have been replaced by
a simple projection by the computerization experts of their own views of the
users' needs. This may result in a loss of opportunities for integrating
information sharing; or in failure to identify the relationship between
operational computing systems, which assist in the day-to-day operation of
criminal justice, and statistical systems, thus leading to unnecessary
duplication of information systems and effort.

50. A proper assessment of users' needs may need to take into account local,
national and international surveys on the subject.

III.   INTERNATIONAL CO-OPERATION FOR A COMPREHENSIVE COMPUTERIZATION PROGRAMME IN CRIMINAL JUSTICE AND CRIME PREVENTION

A.   Benefits of international exchanges of experience

51. No country, whether developed or developing, can take lightly the risk
of installing computer-based information systems in a manner that is less than
optimal. For developing countries, the dangers of inappropriate and poorly
planned computerization are great. "Many United Nations advisory missions to
developing countries have found frequent misutilization and gross under-
utilization of information systems." 15/ All countries can benefit from
sharing knowledge and learning from the experience of other countries,
especially in such areas as identifying factors that are critical to computer-
ization, computerization planning and solving management problems in implement-
ing computerization systems.

52. The United Nations system has an important role to play in assisting
countries in crime and criminal justice issues, especially in the following
areas: (a) development of general guidelines in computerization; (b) strength-
ening of information networks based on computer technology; and (c) provision
of direct technical assistance in computerization of the administration of
criminal justice. These areas of action should lead to the development of
national capacities for the effective use of computers in the field of criminal
justice.

53. Appropriate formulation and implementation of the tasks entailed in the
role of the United Nations system require a long-term plan, which will be
discussed at the workshop in connection with the draft resolutions contained
in Committee decisions 11/103 and 11/105. Issues that may be useful for that
discussion are outlined below.

B.   Development of guidelines

54. The Department of Technical Co-operation for Development has issued three
manuals on the computerization of public administration that are relevant to
the administration of criminal justice: Modern Management and Information

Systems for Public Administration in Developing Countries, 6/ Management of
Government Information Systems: Elements of Strategies and Policies, 16/ and
Use of Information Technologies in Public Administration: A Guide for
Executive Development (TCD/SEM.86/5).

55.   The manual on the effective use of computers in criminal justice (see
paragraph 20 above) will deal with more specific issues related to the com-
puterization of the administration of criminal justice as a follow-up to the
Manual for the Development of Criminal Justice Statistics. 5/   The new manual
is intended to make criminal justice practitioners, decision makers and other
persons concerned more aware of the issues involved in computerization,
particularly in developing countries.

56.   The development of guidelines for the applications of computer technology
in specific areas of the management of criminal justice will form a major
component of future activities in this area.

C.   Strengthening the dissemination and exchange of information:
the United Nations Criminal Justice Information Network

57.   The development of viable policies in the field of crime, as in other
fields, depends on adequate and timely information.   Making wise decisions
requires familiarity with the range of alternatives and their suitability in
different circumstances: knowledge of what works, what does not, and under
what conditions.

58.   In most fields, such as the natural sciences, medicine and engineering,
there are information networks to centralize and disseminate up-to-date infor-
mation in a systematic way, utilizing input from researchers and practitioners
in different parts of the world.   This is becoming increasingly common in other
fields, such as population and the environment, and in various areas of United
Nations activity.   The Earthwatch system of the United Nations Environment
Programme and the Population Information Network (POPIN) project, undertaken
by the United Nations jointly with scientific institutions and other relevant
bodies, are cases in point.

59.   In March 1989, the United Nations Criminal Justice Information
Network (UNCJIN) was established in response to Economic and Social Council
resolution 1986/11.*

60.   The founding members of UNCJIN include all the United Nations institutes
for the prevention of crime and the treatment of offenders (see annex I).   Many
other criminal justice research institutes, agencies and non-governmental
organizations, mostly from developed countries, have joined UNCJIN since its
first year of operation.   Extrabudgetary funding for UNCJIN has been made
possible largely by the School of Criminal Justice of the State University of
New York at Albany, New York, in anticipation of as much of its financing as
possible being taken over by the United Nations in its programme budget for

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*After a number of preparatory meetings attended by experts from the
relevant United Nations departments and non-governmental organizations, the
Crime Prevention and Criminal Justice Branch began the process of establishing
UNCJIN.   UNCJIN is serviced by the Telecommunications Cooperative Network,
which acts as the network host.   The Telecommunications Cooperative Network is
a non-profit organization specializing in providing network services to other
non-profit organizations, including a number of United Nations agencies.

the biennium 1992-1993. In principle, however, both logistically and substantively, a more comprehensive funding plan is required that would enable UNCJIN to provide a more efficient and substantive service to the international criminal justice community.

61. UNCJIN has two basic goals:

(a) To enable its members to send to and receive from other UNCJIN members, and members of other networks, any amount of information;

(b) To provide substantive data from various data bases within and outside the network, including data from the United Nations surveys of crime trends, operations of criminal justice systems and crime prevention strategies and information on new legislation interesting court decisions and on scheduled criminal justice meetings. A special software demonstration at the Eighth Congress will highlight the features of UNCJIN. A blueprint of UNCJIN showing the parts of it in operation and under development is provided in annex II.

62. Focusing on computer networking does not mean eliminating other forms of communication that may usefully complement electronic information. In an effort to reach as wide an audience as possible, a newsletter is published four times a year and sent to national correspondents and others on a mailing list. The newsletter is especially intended for developing countries that are, in many cases, not in a position to afford the hardware necessary for communication via computer network. Another purpose of the newsletter is to maintain the interest of UNCJIN members in the Network. Each issue of the newsletter focuses on a particular topic. The first issue focused on juvenile justice, whereas the second focused on victims of crime.

63. In the draft resolution on the computerization of criminal justice, contained in Committee decision 11/103, potential directions of development of UNCJIN are identified, together with possible sources of funding. At the Sixth Annual Joint Meeting on Programme Co-ordination in the Field of Crime Prevention and Criminal Justice, the United Nations institutes that were founding members of UNCJIN committed themselves to the continued expansion of its operations, especially in developing countries, which may have particularly difficult technical and logistical problems in joining UNCJIN.

64. Pursuant to the Riyadh discussions, the United Nations regional institutes for the prevention of crime and the treatment of offenders undertook to consider financing new membership fees for developing countries and to develop, in co-operation with the Crime Prevention and Criminal Justice Branch, crime-related data bases oriented to the needs of their regions. This would include, to the extent possible, plans for training courses for criminal justice practitioners from developing countries in the collection and analysis of criminal justice statistics data for the Fourth United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies (1987-1990).

65. A comprehensive subsidy programme is needed that will enable developing countries not only to pay the UNCJIN membership fees, but also to buy the necessary software and hardware; the programme would also provide technical assistance in the use of the software and network services, including on-site training in the use of communications software, in the operation of personal computers, and in ways to use UNCJIN to the best advantage.

66. The development of UNCJIN is only one facet of strengthening information dissemination and exchange. In the draft resolution on the management of criminal justice and the development of sentencing policies, contained in Committee decision 11/105, section F, the Eighth Congress would request the Secretary-General to facilitate the exchange of information, experience and personnel between jurisdictions that are in the process of computerizing some aspect of their criminal justice systems and those that are at a more advance stage of that process. To help carry out that task, a list of available software programmes could be compiled, together with references, and regularly reviewed as one of the data bases of UNCJIN. The list could be published separately once or twice a year. It might also be appropriate to establish a software library in the Secretariat that would consist of software programmes sent to the Secretariat by Member States interested in sharing them with other Member States.

D. Implications for technical co-operation

67. Section II and paragraphs 54-66 above underline how intricate, lengthy and risky a computerization project may be if it is not properly planned, financed, administered and evaluated. The task of computerizing the management of criminal justice requires diversified and flexible strategies that maximize the benefits of computerization and lower the risks involved. Therefore, the extent to which system users are aware of the nature and potential of computerization in their particular sector must first be identified and assessed through education and training.

1. Education and training

68. One of the main functions of training activities is to fill the gaps in the knowledge and awareness of criminal justice personnel, thus enabling them to overcome any reluctance to use new technology.

69. There are a number of types of education and training, each with different target groups and priorities. One type is more strategic in nature and oriented towards policy makers. A second is for the managers who must run the systems. A third type is for technicians in systems software, systems hardware and data communications. A fourth is for end users, those who actually handle the computer applications. 17/ Depending on the stage of implementation of the project, the training of certain groups may have priority over that of other groups.

70. Information is vital to each group, but the type of information, the method by which the training can be effectively delivered, the type of person who will carry out the training and the tools necessary for the training will differ greatly.

71. The manner in which the technical infrastructure of training is developed can be challenging, for successful results may require an elaborate plan. Its elements should include the subject and objectives of the training, identification of the staff to be trained, the post-training support mechanism, the applicability of training methods to conditions in other countries interested in training their staff etc.*

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*For a model course syllabus for public administrators, prepared by the Department of Technical Co-operation for Development, see Use of Information Technologies in Public Administration: A Guide for Executive Development (TCD/SEM.86/5).

72.   The training of end users of computerized criminal justice systems is
particularly important. There are many ways to bring about their involvement,
such as:

(a) Setting up a steering committee, comprised of the managers of the
users' group and the system developers, to guide the work;

(b) Keeping the entire user community informed of progress in systems
development;

(c) Getting the users to carry out a cost-benefit analysis to justify
the new system;

(d) Rapidly producing prototype systems so the users can acquire a
feeling for the final system early in the development process;

(e) Training users to participate as programmers in the development team;

(f) Holding intensive discussions with users on computer screen layouts.

73.   Such user involvement results in a better information system in that they
use the system more and also report that they are more satisfied with the
system.

74.   Since such a training programme cannot be a one-time event, one prereq-
uisite for its successful launching is the proper identification, selection
and training of officials responsible for computerization. Of particular
importance is the training of trainers who are capable of developing and
monitoring training programmes in their home countries. The training of
trainers should be at the top of the list of the many competing priorities of
the United Nations computerization programme.

75.   Pilot training courses of this type should be organized at the regional
and interregional levels. The United Nations institutes for the prevention of
crime and the treatment of offenders, in co-operation with other United Nations
bodies and offices concerned and other international organizations, may be in
a position to consider and plan the organization of such courses for computer
trainers, subject to the availability of resources.

2.   Technical co-operation projects

76.   Technical co-operation has been one of the essential means of building
national capacities for self-reliant development. As technical co-operation
is not free to receiving countries, it should be planned and implemented in a
manner preventing unnecessary project costs.

77.   Technical co-operation may be financed by a loan that the receiving
country will be committed to repay. It may also be financed by a non-
reimbursable grant, but even this form of financing most likely results in
important direct and indirect costs to the recipient. These include a
counterpart contribution to the project (e.g. office space and equipment,
salaries of local support staff), which the aid agency will expect; and an
administrative burden to the recipient that involves dealing with the agency
according to its own particular style and integrating the project into its
national development planning process. If the project involves the establish-
ment of a new facility, the developing country will have to bear the costs of
running it.

78. Technical co-operation projects at the national level typically comprise
the following main components of funding: short-term and long-term personnel
(international and local); short-term and long-term training, including study
tours and fellowships (international and local); and sub-contracts, equipment
and reporting (i.e. technical and managerial reports). To ensure their long-
term effectiveness and impact on the country, projects normally call for a
balance of these different components, rather than entailing "in-and-out"
expertise and shopping lists of miscellaneous equipment.

79. Technical co-operation projects can be financed from a variety of bilat-
eral and multilateral sources. Within the United Nations system, the United
Nations Development Programme (UNDP) is a principal source of pre-investment
grants. In addition, there may be special purpose trust funds that receive
voluntary contributions from many donors, including the United Nations Social
Defence Trust Fund.

80. The Department of Technical Co-operation for Development provides support
for pilot projects, training workshops and specialized advisory services, in
co-operation with UNDP through its regular programme of technical co-operation.
The development of long-term technical and organizational capabilities to meet
national needs identified by each country is the central goal of the activities
of the Department. As a result of these activities, countries receiving assis-
tance should attain financial, organizational and substantive self-reliance in
implementing the projects.

81. In the United Nations crime prevention and criminal justice programme,
three Member States, each at a different stage of involvement in the computer-
ization project, have recently been implementing the goals set in the country
projects. Each of the projects has been formulated and is being executed with
other United Nations bodies and offices, including the Department of Technical
Co-operation for Development, the Statistical Office of the Secretariat and
the World Bank. The Interregional Advisor of the Department of Technical
Co-operation for Development, in close co-operation with the Crime Prevention
and Criminal Justice Branch, has also provided advice on the design of some of
the projects. Each of the projects is monitored by the United Nations Office
at Vienna, Centre for Social Development and Humanitarian Affairs.

IV. FINAL OBSERVATIONS

82. To assist developing countries in implementing the course of action
proposed in the present report, there are a variety of possibilities for
bilateral and multilateral co-operation at the international level. Bearing
in mind the interdisciplinary nature of such co-operation, these possibilities
include:

(a) Assistance to national authorities in the development of methodol-
ogies for the creation and use of information systems tailored to specific
national needs and circumstances, including assistance to national training
programmes for user-managers and systems personnel (see paragraphs 37-39 and
46-49 above);

(b) Regional, subregional or interregional training seminars organized
within the framework of the United Nations technical co-operation programme
and crime prevention and criminal justice programme to sensitize national
policy makers and high-level government officials to the need to plan for and
appropriately implement computerization projects; and similar training

seminars for trainers, system users, professionals and programmers: Other
international organizations may wish to contribute to many of these under-
takings (see paragraphs 74-75 above);

(c) Surveys on the state of development of criminal justice information
systems in various countries and the dissemination of such information as
inputs to the above-mentioned seminars (see paragraphs 21-22 and 50 above);

(d) International collection, dissemination and exchange of information
on appropriate general purpose software and training courses, which will help
countries to obtain information on current initiatives and plans for the
computerization of public administration, which may, in turn, facilitate
closer collaboration between interested countries (see paragraph 66 above);

(e) Networking mechanisms, which are required to promote and broaden the
scope of information exchange among Member States and interested institutions
in all areas related to the computerization of criminal justice (see para-
graphs 57-65 above);

(f) Bilaterial and multilateral assistance in national training pro-
grammes for trainers, user-managers and systems personnel: Technologically
developed countries can contribute to technical co-operation activities and to
the creation of relevant information systems tailored to specific national
circumstances. They can also aid developing countries in designing software
packages for the administration of criminal justice and in training staff to
use them (see paragraphs 68-73 above);

(g) Formulation and implementation of, upon request of Member States,
specific projects to be financed bilaterally and multilaterally (see para-
graphs 76-81 above);

Notes

1/ See The Application of Computer Technology for Development (United
Nations publication, Sales No. E.71.II.A.1); and The Application of Computer
Technology for Development (United Nations publication, Sales No. E.73.II.A.12).

2/ United Nations publication, Sales No. E.76.IV.2, para. 412.

3/ United Nations publication, Sales No. E.81.IV.4, chap. I, sect. B.

4/ United Nations publication, Sales No. E.86.IV.1, chap. I, sect. E.

5/ United Nations publication, Sales No. E.86.XVII.16.

6/ United Nations publication, Sales No. E.85.II.H.1.

7/ See Helsinki Institute for Crime Prevention and Control, affiliated
with the United Nations, and Poland, Ministry of Justice, Computerization of
Criminal Justice Information Systems: Realities, Methods, Prospects and
Effects, HEUNI No. 12 (Helsinki, Government Printing Centre, 1987).

8/ See United Nations Office at Vienna, Centre for Social Development
and Humanitarian Affairs, Crime Prevention and Criminal Justice Newsletter,
Nos. 14/15, December 1987, special double issue on the computerization of
criminal justice information.

9/   See also Edward C. Ratledge and Joan E. Jacoby, <u>Handbook on Artificial Intelligence and Expert Systems in Law Enforcement</u> (Westport, Connecticut, Greenwich Press, 1989); and Anil K. Jain, "Expert systems: prospects for developing countries" (IPCT.41(SPEC.)).

10/   See <u>Computers in Correctional Administration and Links with Other Legal EDP Systems</u>, proceedings of the sixth colloquium on the use of computers in the administration of justice, held at Helsinki from 8 to 10 September 1987 (Strasbourg, Council of Europe, 1988); and Organisation for Economic Co-operation and Development, <u>An Exploration of Legal Issues in Information and Communication Technologies</u>, Information Computer Communication Policy, vol. 8 (Paris, 1983).

11/   See William Archambeault, "Emerging issues in the use of micro-computers as management tools in criminal justice administration", <u>Microcomputers in Criminal Justice: Current Issues and Applications</u> (Cincinnati, Ohio, Anderson Publishing, 1987), pp. 99-112; and Denise E. Bronson, Donald C. Pelz and Eileen Trzcinski, <u>Computerizing Your Agency's Information System</u>, Sage Human Services Guide No. 54 (Newbury Park, California, Sage Publications, 1988), pp. 28-57.

12/   See also <u>Management of Government Information Systems: Elements of Strategies and Policies</u> (United Nations publication, Sales No. E.89.II.H.4); and <u>Modern Management and Information Systems for Public Administration in Developing Countries</u> (United Nations publication, Sales No. E.85.II.H.1), chap. IV.

13/   <u>Modern Management and Information Systems ...</u>, paras. 96, 97 and 139.

14/   See <u>Modern Management and Information Systems ...</u>, para. 91; Hans-Jochen Schneider, "Software production: organization and methodologies" (IPCT.63); and Hermann Kopetz, "Guidelines for software production in developing countries" (IS.440).

15/   <u>Modern Management and Information Systems ...</u>, para. 4; see also M. Sanwal, ed., <u>Micro-computers in Development Administration</u> (New Delhi, Tata McGraw-Hill Publishing, 1987); "End user computing in development administration: the vital role of administrators", <u>Public Administration and Development, 1990</u>, vol. 10/2, pp. 210-221; and K. B. Agrawal, "Law and computers in India - a study in application", Quarto Congresso Internazionale sul tema, Informatica e Regolamentazioni, Giuridiche, Roma, 16-21 May 1988.

16/   United Nations publication, Sales No. E.89.II.H.4.

17/   See <u>Modern Management and Information Systems ...</u>, paras. 180-181; and United Nations Educational, Scientific and Cultural Organization, <u>Education and Informatics: Strengthening International Co-operation</u>, vols. 1 and 2, proceedings from an international congress held from 12 to 21 April 1989.

Annex I

FOUNDING MEMBERS OF THE UNITED NATIONS CRIMINAL JUSTICE
INFORMATION NETWORK*

Arab Security Studies and Training Centre
P.O. Box 6830
Riyadh
Saudi Arabia

Australian Institute of Criminology
P.O. Box 28 Woden
Canberra, ACT 2606
Australia

Helsinki Institute for Crime Prevention
   and Control, affiliated with the United Nations
P.O. Box 34
SF-00931 Helsinki
Finland

United Nations African Institute for the
   Prevention of Crime and the
   Treatment of Offenders
c/o Resident Representative
UNDP Field Office
P.O. Box 7184
Kampala
Uganda

United Nations Asia and Far East Institute
   for the Prevention of Crime and the
   Treatment of Offenders
1-26 Harumicho
Fuchu, Tokyo
Japan

United Nations Interregional Crime and Justice
   Research Institute**
Via Giulia 52
00186 Rome
Italy

United Nations Latin American Institute
   for the Prevention of Crime and the
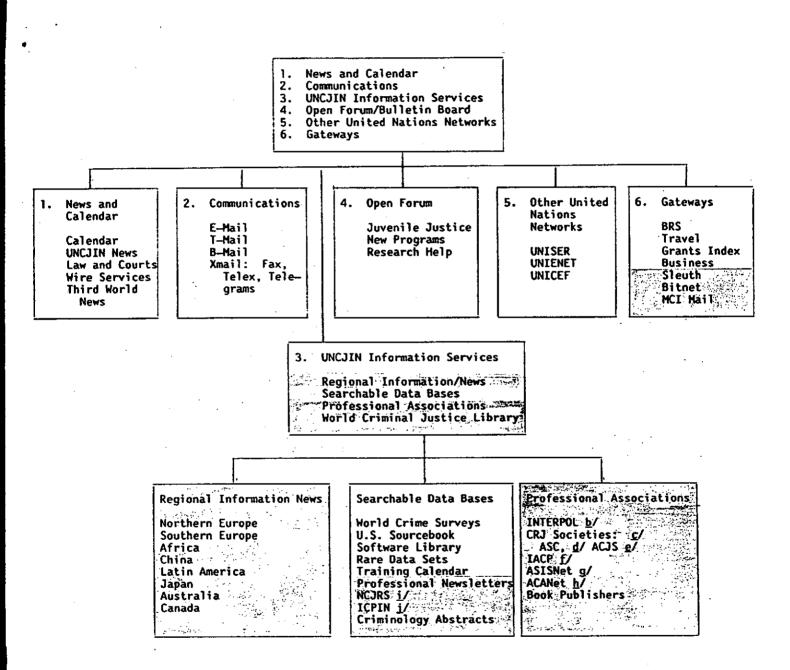   Treatment of Offenders
P.O. Box 10071
San José
Costa Rica

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United States of America.

   **Formerly the United Nations Social Defence Research Institute.

Annex II

UNITED NATIONS CRIMINAL JUSTICE INFORMATION NETWORK a/

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│ 1.  News and Calendar                │
│ 2.  Communications                   │
│ 3.  UNCJIN Information Services       │
│ 4.  Open Forum/Bulletin Board        │
│ 5.  Other United Nations Networks    │
│ 6.  Gateways                         │
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1. News and Calendar	2. Communications	4. Open Forum	5. Other United Nations Networks	6. Gateways
Calendar	E–Mail	Juvenile Justice		BRS
UNCJIN News	T–Mail	New Programs	UNISER	Travel
Law and Courts	B–Mail	Research Help	UNIENET	Grants Index
Wire Services	Xmail: Fax,		UNICEF	Business
Third World News	Telex, Tele– grams			Sleuth Bitnet MCI Mail

3. UNCJIN Information Services

Regional Information/News
Searchable Data Bases
Professional Associations
World Criminal Justice Library

Regional Information News	Searchable Data Bases	Professional Associations
Northern Europe	World Crime Surveys	INTERPOL b/
Southern Europe	U.S. Sourcebook	CRJ Societies: c/
Africa	Software Library	ASC, d/ ACJS e/
China	Rare Data Sets	IACP f/
Latin America	Training Calendar	ASISNet g/
Japan	Professional Newsletters	ACANet h/
Australia	NCJRS i/	Book Publishers
Canada	ICPIN j/	
	Criminology Abstracts	

a/ Areas under development are shaded.

b/ International Criminal Police Organization.

c/ Criminal Justice Societies.

d/ American Society of Criminology.

e/ Academy of Criminal Justice Sciencies.

f/ International Association of Chiefs of Police.

g/ American Society for Information Science Network.

h/ American Correctional Association Network.

i/ National Criminal Justice Reference Service.

j/ International Crime Prevention Information Network.