

SCIENCE AND TECHNOLOGY POLICY IN THE UNITED NATIONS SYSTEM: A HISTORICAL OVERVIEW

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Summary

The main thesis is that the restructuring of the UN system in the economic and social fields that happened in the 1990s lead to the practical disappearance of science and technology policy programmes from the UN scenery for a long period of time. It was not a mere coincidence that in 1992-1994 UN terminated the work of IGCSTD, ACSTD, abolished the CSTD, UN ECE SAST, UNESCO Science, Technology and Society programme, etc in spite of a support and needs of developing countries. To understand the reason for such evolution of science and technology policy programmes the author tried to construct a chronology of key milestones in the development of those programmes and demonstrate the various components of how the programmes were working and main results obtained. The major event in the UN science and technology policy scenery was the 1979 Vienna Conference on Science and Technology for Development. The conference preparatory process and its results were, in fact, a

consciousness-raising experience for the majority of participating countries, which realized a need in bringing science and technology to the forefront of their economic strategies. However, the results of the post-Vienna restructuring and follow-up action demonstrated that modelling science and technology policy programmes of various UN bodies after the UNCTAD's technology policy imposed model might be in conflict with the real needs of developing countries. In the view of the author, this restructuring side-tracked the Vienna Programme of Action's aspirations. To day, more than a quarter of century after UNCTAD, the most notable allusion to the requirements first formulated by the Vienna Conference in 1979 can be found in the newly established programmes of such bodies as CSTD or UNESCO.

1. The 1963 Geneva Conference

Though the first scientific conference under the auspices of the United Nations was held as early as in 1949 and called the United Nations Scientific Conference on the Conservation and Utilization of Resources (UNSCCUR), it did not deal explicitly with science policy issues. The Conference was the outcome of a proposal made by the US representative to the UN Economic and Social Council (ECOSOC) in September 1946. It was envisaged as an exchange of views and experience among experts who would not necessarily represent the views of their governments, but would cover scientific topics within their competence on the basis of their individual research and experiences. Nevertheless, this Conference represented an important land mark of the beginning of science history in the UN.

The first attempt to treat science and technology policy for development was made at the UN Conference on Science and Technology for the Benefit of Less-Developed Areas. It was held in Geneva from 4 to 20 February 1963 and brought together 1,665 participants from 96 countries, as well as a multitude of international organizations. The national participants were mainly scientists and engineers. The purpose was to draw attention of policy makers to the advances of science and technology and their application to the solution of problems faced by developing countries in such sectors as agriculture, health, and transportation. As the UN Secretary-General U Thant indicated in his foreword to the Geneva conference proceedings, science could be a powerful force for raising living standards if the governments find the means and the political will. However, such acute problems for developing countries as acquisition, transfer and social impacts of technology were not discussed at length. This conference elucidated a dilemma of a right balance between profound discussion of existing links between science, technology and development and adoption of politically accepted practical action to be followed, as well as of a right balance in representation of scientists and politicians at such big world events. Joshua Lederberg, Nobel Laureate and a Chairman of the USA Carnegie Commission on Science, Technology, and Government, has rightly noted that science and politics are a hard match; while scientists can bring much to the political process, they, lacking the policy skills needed to relate their expertise to social action, often feel uncomfortable dealing with the political machinery. This was the case with the Geneva conference. Moreover, according to Raziuddin Siddiqui's evidence, who was then a member of the Pakistani delegation at the Geneva conference, there existed a strong desire on the part of some groups to take out the letter "S" from UNESCO and make it "UNECO". These groups

wanted to make a new separate organization for science within the UN system. After a long debate extended over several days this idea was rejected. In spite of all these complications the far reaching consequences of this conference were not that bad. First of all, the Geneva conference, according to F. R. Sagasti, visualized the accumulated stock of science and technology knowledge which the developing countries could rely upon in order to solve their development problems. Secondly, it provoked the important institutional changes within the UN system and created mechanisms for discussing science and technology policy issues. As a follow-up to the Conference, ECOSOC established on 1 August 1963 an Advisory Committee on the Application of Science and Technology for Development (ACAST). This Committee was constituted of 24 members from both developed and developing countries, which were nominated by the UN Secretary General after consultation with corresponding governments. One of the major tasks of ACAST was to find an effective follow-up to the Geneva Conference. The Committee met on a regular basis for 16 years.

ACAST released in 1971 the World Plan of Action for the Application of Science and Technology to Development. The World Plan was prepared on the basis of material submitted by the United Nations system, by intergovernmental and non-governmental organizations and by individual experts. It consisted of two parts: part one dealing mainly with those priorities areas in which science and technology could make a resounding impact and the finances needed for the implementation of the Plan. The part two of the Plan referred to science policy, institutional and educational matters. Among the policy recommendations, the Plan of Action insisted that countries should make effective arrangements for formulating and executing national science and technology policy. The Plan made explicit references to science policy documents published by UNESCO. Following the recommendations of the UNESCO Regional Ministerial Conferences the Plan stipulated that developing countries should allocate one percent of their GNP to science and technology for development. However, as rightly noticed a former director of OST K.H. Standke, the World Plan of Action had never been transformed into a Plan for World Action. Nevertheless, all principal ideas of this Plan have been later expanded and included in the Vienna Programme of Action adopted by the UN Conference on Science and Technology for Development (UNCSTD) in 1979. Since ACAST had an advisory function and in reality was not involved in policy making process ECOSOC decided to overcome this deficiency and established in 1971 an ECOSOC Committee on Science and Technology for Development (CSTD) where the politicians from 52 Member states discussed policy issues including those suggested by ACAST. The Office of Science and Technology (OST) was created as a part of the UN Secretariat to support both of these committees and assist in the implementation of the advice.

2. The UNCSTD preparation

2.1 Chronology

The second UN Conference on Science and Technology was proposed by the Romanian delegation during the 25th session of the UN General Assembly in 1970. In its resolution 2658(25) the General Assembly requested the Secretary General to apprise the results attained by the UN system in the field of science and technology and their

application to development since the first UN Conference on Application of Science and Technology for the Benefit of the Less Developed Areas held in 1963.

The UN Secretary-General, in his report of 26 January 1973, recommended to the ECOSOC Committee on Science and Technology for Development (CSTD) to consider a possibility of convening the second international conference on science and technology. Following this report ECOSOC, by its resolution of 16 August 1973, authorised CSTD to investigate a possibility of convening such conference. CSTD, at its second session in March 1974 proposed that the conference would be held in 1978 or 1979. ECOSOC at its 57 session in a resolution 1897 of 1 August 1974 supported the idea of holding the Conference and set up an Intergovernmental working group for the examining of “the specific objectives, topics and agenda of such a conference”. Frank Joao da Costa, a diplomat from Brazil, was elected as the chairman of the International working group. In October 1974 during the meeting of a Panel of experts jointly with ACAST it was proposed that the forthcoming conference should be: a) held at the level of the governmental representatives responsible for national science and technology policy, b) devoted to the problems of developing countries, and c) preceded by the regional preparations. One of the experts- Alexander King, a founder and the future President of the Club of Rome, proposed that the UN regional conferences would be held before the major conference in order to discuss a situation with science and technology at the regional level. Basing on these proposals the Intergovernmental working group, in its meeting held in Geneva from 21 April till 02 May 1975, suggested the provisional agenda of the future conference. The General Assembly at its seventh special session adopted a Resolution 3362 (S-VII) of 16 September 1975, in which it agreed to convene the Conference in 1978 or in 1979 with the main objective of strengthening scientific and technological capacities of developing countries to enable them in applying science and technology to development and in utilizing their own scientific and technological potential to the solution of development problems of regional and global significance.

31 Session of the General Assembly in the resolution 31/184 of 21 December 1976 decided to convene the Conference in 1979, approved the provisional agenda of the Conference and requested the UN Secretary-General to appoint a Secretary-General of the Conference. It also established the Preparatory Committee for UNCSTD (Prepcom) and invited all governments and organizations of the United Nations system to cooperate fully in the preparation for the Conference. 28 January 1977 Mr. Joao Frank da Costa was appointed as the Secretary-General of UNCSTD. The Preparatory Committee held its first session in 1977 and elected a Prepcom Bureau with Mr. A. Ramachandran (India) as its Chairman (later replaced by Mr. M.G.K. Menon from India), Nikolau (Romania), M.B. El-din Fayez (Egypt), Jankovich (Austria) as the Vice-Presidents. At its thirty-second session the General Assembly in the resolution of 15 December 1977 decided to hold the Conference “at an appropriate time in 1979”, affirmed the objectives of the Conference and requested the UN Secretary-General and the Executive Heads of the United Nations system to give priority to the preparation of the Conference. Although the representatives from the developed countries were first reluctant to the idea of convening second UN conference on science and technology they all voted for the resolution. It is interesting to recall that ten countries from the group of socialist countries abstained, one developing country (Ethiopia) voted against

the resolution. The major reason for such position of the East European countries (at that time they were called “socialist”) was a fear of possible proliferation of the United Nations systems and the creation of a new organization responsible for science and technology. Their position was that science policy issues should remain within the UNESCO’s domain. By the resolution 32/184 of 19 December 1977 the General Assembly accepted an invitation of the Government of Austria to act as host to the Conference and decided that the Conference would be held in Vienna for two weeks in 1979. According to all assessments, the preparatory process for UNCSTD was not less significant than the conference itself since it triggered the whole range of activities at the national, regional and international levels. Each participating country has been required to prepare “a national paper”, that was to analyse the social and economic problems of the country that might be solved with the help of science and technology. ACAST drafted the guidelines for the preparation of national reports and urged governments to ensure broad participation of scientists in their preparation. The preparation of such reports, in its turn, in many cases stimulated extensive national debates among government officials, development specialists, scientists and technologists and industrialists, in other words – all groups of actors responsible for national science and technology policy. From 142 States participated in the Conference 130 presented their national papers that were attached as the “background documents” to the Conference proceedings. Some countries, while preparing the national papers, launched an internal process of formulating a national science and technology policy and incorporating this policy in development plans. According to many post-conference assessments, such internal processes might be considered among the major achievements of UNCSTD. Prepcom hold five sessions devoted largely to the preparation of the programme of action to be presented to the Conference.

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Bibliography

Anandakrishnan M. (ed.). *Trends and prospects in planning and management of science and technology for development* (1984). Proceedings of Interregional Seminar, Moscow, USSR, 8-27 October, New York, UNCSTD [Discussing follow up of the Vienna Conference].

Baark E., Regis C. and Jamison A.. *Science and Technology for Development in the United Nations System: A preliminary Study* (1988), Research policy studies, Discussion paper no. 183, Lund, Research policy Institute, University of Lund, Sweden.[Analysis of the UN programmes in the field of science and technology].

Contribution to the follow-up to the United Nations conference on science and technology for development (1984), Technical Report, ECE/SC. TECH./R.168, Geneva, ECE [Discusses possible follow-up action of the European countries]

Pati S.C. (1986). *Experiences with the Vienna Programme of Action*, 87 pp, Munchen, Forschungsstelle Gottstein in der Max-Planck-Gesellschaft [This is study on the follow-up activities of developing countries on the recommendations of UNCSTD]

The Vienna Programme of Action on Science and Technology for Development. The United Nations Conference on science and Technology for Development (1979), 36 pp., United Nations, New York [On 31 august 1979 delegates from 142 States adopted by consensus a programme of action and gave it the name of the city that had been host to the UN Conference on Science and Technology for Development]

U.S. Background Preparations and Policy Formulation for the United Nations Conference on Science and technology for Development, (1979), Report prepared by the Science Policy Research Division, Congressional Research Service of Library of Congress for the Committee on Science and Technology, U.S. House of Representatives, ninety-six Congress, First session, 395 pp. Washington U.S. Government Printing Office [It contains background information dealing with U.S. preparation for UNCSTD, summarizes the history of preparatory activity, outlines policy position of the U.S. government and the other countries participating in the Conference]

World Plan of Action for the Application of Science and Technology to Development (1971), Prepared by the Advisory Committee on the Application of Science and Technology for the Second United Nations Development Decade, 286 pp; United Nations, New York [This United Nations publication consisted of two parts. Part One lists priority areas in which science and technology can make a resounding impact. Part two consists of more detailed proposals selected from those submitted by various stockholders].

Biographical Sketch

Vladislav P. Kotchetkov is a consultant to the UNESCO. He graduated from the Moscow Higher Technological University in 1959 and worked on satellite and missile technology. In 1969 he was awarded by the USSR Laureate State Prize. He received a diploma *cum lauda* in international economics from the USSR Foreign Trade Academy in 1977 and worked as a Director of a Division of International Scientific and Technological Co-operation for the USSR State Committee for Science and Technology. He was involved in the preparation of the 1979 United Nations Conference on Science and Technology for Development(UNCSTD) , was a Secretary of the USSR Preparatory Committee for UNCSTD, represented the country at the sessions of the UNCSTD Preparatory Committee , was elected as a Rapporteur at the European Regional Conference for UNCSTD in Bucharest in 1978 and participated in the Vienna Conference in 1979. From 1980 he has been working for the UNESCO Science and Technology Policy Division, was a Chief of the UNESCO Science, Technology and Society Programme and a UNESCO representative at the UN inter-Agency Task Force on Science and Technology for Development. He also served as the Executive Secretary of the Moscow International Energy Club and the UNESCO International Council for Scientific Communication, represented UNESCO at the IUCN Commission on Education and Communication. He is a member of the UNESCO-EOLSS Joint Committee.