# SCIENCE, TECHNOLOGY AND GLOBAL PROBLEMS:
## THE EMERGENCE OF SCIENCE AND TECHNOLOGY IN GLOBAL DIPLOMACY

### AN ACCOUNT OF THE ACTIVITIES OF THE UNITED NATIONS ADVISORY COMMITTEE ON THE APPLICATION OF SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (ACAST)

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## I. Foreword
## by H.E. Ambassador Wilbert K. Chagula

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It gives me great pleasure to write a short foreword to this book: Science and Technology and Global Problems: An Account of the Achievements of the United Nations Advisory Committee of Science and Technology to Development – ACAST - a body whose achievements have so far been insufficiently appreciated by the some Members of the United Nations and of its various Specialized Agencies. The outcome of this is that from the time of its inception in 1964, ACAST was regarded with some mistrust and suspicion even by a number of the United Nations Specialised Agencies.

The origins of this suspicion and mistrust of ACAST are not so far to seek. When ACAST was established by the United Nations Economic and Social Council in 1964, the responsibilities it was given, namely:

- The first to keep under review progress in the application of science and technology to development and propose to the Economic and Social Council measures to for such application to the benefit of developing countries;

- The second to review the scientific and technological programmes and activities of the United Nations and its related agencies, and propose to the Economic and Social Council measures for their improvement, including the establishment of priorities and the elimination of duplication;
- The third to consider specific questions referred to it by the Economic and Social Council, or by the Secretary-General of the United Nations or by the executive heads of the related United Nations agencies;
- And the last, to study and advise the Economic and Social Council on the need for making changes of organization or other arrangements which would improve the application of science and technology to development.

From these wide responsibilities of ACAST lwas given by the Economic and Social Council, it is not difficult to see why some the United Nations related agencies began to vie ACAST with suspicion and mistrust, and this mistrust of ACAST must have been accentuated when the United Nations General Assembly later requested ACAST, *"in keeping with its terms of reference, to examine the possibility of establishing a programme of international co-operation in science and technology for economic and social development" to study the problems of the developing countries and explore suitable solutions including including that of obtaining human, technical and financial resources for the execution of the programme."* As this implied that ACAST would be largely concerned with the initiation of proposals for action by the whole United Nations system, the advisory power of ACAST to the whole United Nations system in the field af science and technology for development became very obvious and, in some quarters, very enviable.

However, as it is very well narrated in PART I of the book under "HISTORICAL PERSPECTIVES", thus suspicion and mistrust of ACAST very quickly subsided and later on largely disappeared and a mutual trust and confidence between the United Nations Specialized Agencies and other international organizations on the one hand and ACAST on the other was subsequently established. This was largely possible for three reasons.

- First, from the very beginning, ACAST put a lot of effort into informing or educating itself an the various activities of the United Nations and its specialized agencies in the field of science and technology for development as explained in PART I of the book;
- Second, representatives of the various United Nations agencies regularly attended ACAST sessions some of which were held at the headquarters of these agencies in Geneva, Paris, Rome and Vienna; and
- Third, and this is most important, it is the high quality and impact of the work of ACAST on the United Nations system as a whole which has almost completely removed the mistrust of ACAST by some of the United Nations related agencies. As the work of ACAST over the last 15 years since its inception has been fully chronicled in PARTS II and III of the book, it would indeed be superfluous for me to outline it again in the Foreword to this book.

The effectiveness of the impact of the work of ACAST has been in large measure been due to the fact that members of ACAST have been appointed by the Economic and Social Council on the basis of their personal qualifications, knowledge and experience in the area of science and technology for development. Over the years, they included cabinet ministers, scientist and technologists, and economists drawn from both developing and developed countries, socialist and non-socialist, and all appointed to serve in their personal capacities, with the approval of their respective

governments. They have thus been able to objectively apply their minds and knowledge to the various problems that face the world today as regards the utilization of science and technology for development without being involved in any North-South or East-West confrontation as is so common in many international for a.

Now just a word on the substantive work of ACAST over the 15 years it has been in existence. Very briefly, it can be legitimately be stated that, in the last decade, there have been very few issues which have been seriously discussed in the United Nations system the ideas for which had not initially originated from ACAST. These issues are fully documented in PART II of the book which testfies to what I have just stated. However, two aspects of ACAST's work should be singled out for special mention:

- First, in addition to providing sectoral or multisectoral inputs to the United Nations system in accordance with its mandate, ACAST did in 1966 recommend that the Economic and Social Council should launch a World Plan of Action for the Application of Science and Technology to Development to assist developing countries in a number of ways:
    - to build the infrastructure required for the effective application of science and technology to development;
    - to mobilize the efforts of the world scientific community for the solution of the problems of developing countries;
    - To promote a greater knowledge of the needs of developing countries for science and technology for development,
    - And, through the United Nations system, to mount a concerted attack on a number of specific development problems either by obtaining new knowledge or by applying existing knowledge.

  The Economic and Social Council did approve the proposal of ACAST, and in 1971 the World Plan of Action was published by the United Nations. In addition, ACAST, in response to a resolution of the United Nations General Assembly, did also produce its own proposals for science and technology utilization for the Second United Nations Development Decade which were also subsequently published by the United Nations. However, as ACAST is only advisory to the United Nations system, either due lack of political will or due lack of the necessary resources, the recommendation of ACAST in the World Plan of Action (and in the Regional Plan of Action for the Application of Science and Technology to Development that were subsequently prepared by ACAST in collaboration with United Nations Regional Economic Commissions) were never implemented by the international community.

- The second contribution of ACAST which I must specifically mention is in connection with the United Nationas Conference on Science and Technology for Development, UNCSTD, ACAST has continuously provided inputs into the preparatory process for the Conference whether through the Committee on Science and Technology for Development (CSTD) or the Preparatory Committee for the UNCSTD which was established later on. In addition, with the objective of involving the international scientific and technological community in the UNCSTD, which essentially will be a Conference for Governments and the United Nations system, ACAST is organizing an *"International Colloquium on Science, Technology and Society: Needs,*

*Challenges and Limitations*" [1]during the week preceding the Conference. It is hoped that this ACAST Colloquium will also provide additional inputs to the main Conference in addition to playing a catalytic role in making the international scientific community conscious of its responsibilities in both the development and application of science and technology to development.

Finally, I should like to express the hope that, in view of the excellent advice ACAST has rendered to the United Nations system will find it possible to continue having an ACAST-like body in the post-UNCSTD period whose advisory functions would have to be determined in the light of the Programme of Action that would be agreed upon at the UNCSTD.

Geneva, 10 July 1979

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## II. Introduction
## by Klaus-Heinrich Standke

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When reflecting on the discussions which took place during the first twenty-five sessions of the United Nations Advisory Committee on the Application of Science and Technology to Development (ACAST), one gets the impression that the history of ACAST is also, to a large extent, the history of science and technology for development in the United Nations system. Bridging the United Nations Conference on the Application of Science and Technology for the Less Developed Areas , which took place in Geneva, February 1963, and the United Nations Conference in Science and Technology for Development (UNCSTD), to be held in Vienna, August 1979, ACAST has covered the entire spectrum of science- and technology-related development topics. The Advisory Committee has consistently sought to identify new issues of concern to development, to elucidate existing issues, and, increasingly, to analyze the systemic relationships among scientific, economic, social and political variables.

Carrying out this crucial work have been seventy-one individuals from forty-one developing countries and thirty developed countries. Two of these people – Dr. Chagas from Brezil and Academician Gvishiani from the Soviet Union – have been members of ACAST since its inception.

[1] Standke, Klaus-Heinrich and Anandakrishnan (Editors), M., Science, Technology and Society: Needs, Challenges and Limitations, Proceedings of the International Colloquium, Vienna, Austria, Organized under the auspices of the United Nations Advisory Committee on the Application of Science and Technology to Development (ACAST), Pergamon Press, New York-Oxford-Toronto-Sydney-Frankfurt-Paris 1980, © United Nations 1980, ISBN 0-08-025947-2, 624 pp.

Although the Advisory Committee works through public sessions and makes its reports accessible as United Nations documents, the full range of ACAST activities are not generally well-known, since the Advisory Committee has not sought punlicity. However, many of the special publications authored by ACAST (and liste in Annex I of this publication) have become seminal works in their respective disciplines. In addition, ACAST makes all of its deliberations available both to the United Nations Economic and Social Council, through the Committee on Science and Technology for Development, and to the various organizations of the United Nations system.

Since a political environment such at that provided by the United Nations is characterized by a relatively high degree of mobility and change in the composition of its delegations, the continuity of a Committee's work is not readily apparent. Consequently, the secretariat of ACAST undertook, on the occasion of the Advisory Committee's twenty-fifth session, a comprehensive view of ACAST's activities from its creation in 1963 through March 1979. It was felt that such an overview may be beneficial to Member States as well as to interested scholars who follow the work of the work of the United Nations in the field of science and technology for development.

In addition to its general, rather historic interest, such a publication should be timely. Scientists and technologists world-wide have just completed a series of international symposia on various aspects of science and technology for development. ACAST itself is sponsoring a non-governmental *International Colloquium on Science, Technology and Society: Needs, Challenges and Limitations*, in Vienna, August 1979.[2] This Colloquium represents a joint undertaking on the part of those organizations within the United Nations system which are particularly concerned with science and technology and, as such, is illustrative of the continuing collaboration between the Advisory Committee and the UN system. And the political, economic and institutional questions associated with science and technology for development are the subject of a United Nations plenipotentiary Conference (UNCSTD). In other words, this a time when it is necessary to reflect on what has been done and what still be done to apply science and technology to development. In this context, a history of ACAST's considerable progress over the last fifteen years is illuminating.

The United Nations is grateful to the seventy-one individuals who have been or at present are members of the Advisory Committee. Their membership has required of them not only their active participation at sessions on a non-remunerative basis, but also numerous personal contacts between meetings in the best tradition of the ideals of the United Nations. It is reassuring that some the most distinguished thinkers of contemporary society have been available to devote much of their time to the goals of the United Nations.

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[2] Standke, Klaus-Heinrich and Anandakrishnan, M. (Editors), Science, Technology and Society: Needs, Challenges and Limitations, Proceedings of the International Colloquium, Vienna, Austria, 13-17 August 1979, Pergamon Press, New York, Oxford, Toronto, Sydney, Frankfurt, Paris 1980

See also:
Standke, Klaus-Heinrich, The Prospects and Retrospects of the United Nations Conference on Science and Technology for Development; Technology and Society, Vol.1, pp.353-386 (1979),
Standke, Klaus-Heinrich, Science and technology in global cooperation: the case of the United Nations and UNESCO; Science and Public Policy, Vol. 33, number 9, November 2006, pp.627-646

On this occasion, I should like to pay tribute to the work of my predecessors as Secretaries of ACAST: To Dr. John H.G. Pierson, who served in this capacity for the first four sessions of the Advisory Committee; to Mr. Guy Gresford, who served as Secretary of ACAST for fourteen sessions; to Dr. R. Desai, who served as Director-ad-interim and as ACAST Secretary at the nineteenth session. Sir Ronald Walker, am member of the Advisory Committee for eleven years, has undertaken to prepare Part I of this report, entitled “Historical Perspectives”. We are grateful to him. Parts II (Introduction) and III (Overview of Programmes) are mainly the work of Ms. M.P. Williams of the Secretariat. The various organizations of the UN system have kindly undertaken to review all parts of the report where references were made to them. The responsibility for any errors or possible misinterpretations remains with me.

KHS

New York, July 1979