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field of natural sciences, the dissemination of scientific knowledge and the application of such knowledge for peaceful ends (E/3765); (c) Organization and functioning of scientific abstracting services (E/3618); (d) International co-operation in the peaceful uses of outer space (E/3770, E/3794 and Corr.1)

GENERAL DEBATE (concluded)

1. Mr. ARKADIEV (Union of Soviet Socialist Republics) said that the twentieth century was characterized by amazing scientific discoveries which, if properly utilized, would enable the peoples of the world to accelerate their economic and industrial development, eliminate poverty and ignorance and raise the general level of living. That the manifold problems raised in connexion with those discoveries were not being ignored by the United Nations family had been amply proved by the recent Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas, which had helped to familiarize the scientists of the developing countries with the achievements of the developed countries in a wide variety of scientific fields. That conference had, in particular, emphasized the need for industrial development in the developing countries. It had also stressed national planning as a prerequisite for industrial development and had drawn attention to the basic problem of training national cadres of engineers and skilled workers. In that connexion, many representatives of developing countries had indicated that the mineral resources of those countries belonged to their respective governments, which were the sole agencies capable of mobilizing the necessary human resources to make proper use of them.

2. Concerning the suggestion for the establishment of a new agency to assist the less developed countries in science and technology, his delegation agreed with the Secretary-General's view (E/3772 and Corr. 2, para. 225) that the possibilities of utilizing the existing agencies should rather be developed to the fullest extent; in that connexion particular emphasis might be laid on UNESCO. With respect to the Secretary-General's suggestion for the establishment of an advisory committee on science and technology (*ibid.* para 236), however, his delegation feared that such a measure would call for increased budgetary appropriations in the Special Fund and the specialized agencies and, being already concerned about the trend towards continuous growth in the United Nations budgets, felt compelled to oppose it. In the course of the following four or five years, if that trend continued, some \$800 million would be spent for those programmes, and it was of vital importance to ensure that the money was not wasted. If rationally expended for such projects

President : Mr. A. PATIÑO (Colombia)

Present :

Representatives of the following States: Argentina, Australia, Austa, Colombia, Czechoslovakia, El Salvador, Ethiopia, France, India, Italy, Japan, Jordan, Senegal, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Yugoslavia.

Observers for the following Member States: Algeria, Canada, Central African Republic, Chile, China, Greece, Hungary, Indonesia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Pakistan, Poland, South Africa, Sweden, Ukrainian Soviet Socialist Republic.

Observers for the following non-member States: Federal Republic of Germany, Holy See, Switzerland.

Representatives of the following specialized agencies: International Labour Organisation, Food and Agriculture Organization of the United Nations, United Nations Educational, Scientific and Cultural Organization, International Civil Aviation Organization, Universal Postal Union, International Telecommunication Union, World Meteorological Organization, Inter-Governmental Maritime Consultative Organization.

The representative of the International Atomic Energy Agency.

AGENDA ITEM 15

Questions relating to science and technology

- (a) Report by the Secretary-General on the results of the United Nations Conference on Science and Technology for the Benefit of Less Developed Areas (E/3772 and Corr.2 and Add.1); (b) Main trends of inquiry in the

as industrial plants and the dissemination of practical scientific knowledge in the developing countries, immense benefits to those countries might ensue, but there was a very real danger that higher expenditure might not produce commensurate results. In that connexion, stress had rightly been laid on the major part to be played by bilateral aid with the relatively large resources at its disposal. His own country was now providing scientific and technical assistance to more than twenty developing countries in Africa, Asia and the Middle East. At the request of those countries, it had set up scientific institutes and centres which were already engaged in systematic research, as well as educational institutes for the training of technicians and skilled workers. In other countries, notably the United Arab Republic and Indonesia, it had proposed to construct atomic reactors for research in the peaceful uses of atomic energy. In the USSR itself, several thousand foreign students were studying technical subjects, and that form of bilateral assistance would be continued in the future.

3. Lastly, with reference to the publication programme of the Conference (*ibid.* paras. 11-16), he noted that the original proposals had called for the publication of the contributions to the Conference in seventeen volumes and in all four official languages, whereas the latest proposals mentioned only the publication of eight volumes consisting mainly of summaries of the original scientific papers. In his delegation's opinion, such an approach would be inconsistent with the very purpose of the Conference; if the developing countries were to derive any benefit from it, all the reports should be published in full, with complete translations, and should be placed at the disposal of all persons interested in them. Full publication, moreover, would relieve the Secretariat of the burden of replying to the numerous requests for additional information which it would undoubtedly receive if only abridged versions were published.

4. Mr. DUCCI (Italy) observed that his government was fully aware of the importance of applying science and technology for the benefit of less developed areas, since it was frequently confronted in Italy itself with the problem of transferring technical assistance from the more industrialized to the less industrialized regions. His government was already engaged in research projects on such subjects as solar energy, geothermal energy and tropical agronomy and would be glad to place its facilities at the disposal of the less developed countries.

5. With respect to the Secretary-General's recommendations on desirable follow-up action (E/3772 and Corr. 2, part three), he felt that the Council should steer a middle course between an attitude of bureaucratic complacency, in which it would be satisfied merely to encourage the specialized agencies, and an over-ambitious policy of expansion, under which it would rely on financial resources which might not materialize. That point had already been brought out by other representatives. While accepting an additional responsibility of the United Nations in that field, the Council should study the long-term problem of developing appropriate activities to meet the demands of the situation. In that connexion, it would be desirable to ensure better co-ordination with the

specialized agencies through ACC, while the responsible authorities in the specialized agencies might examine their budgets with a view to reallocating their resources. Moreover, member States themselves should give higher priority to the problem of transferring scientific and technical information to developing countries. He welcomed the offer of the United Kingdom and the United States at the 1271st meeting to make their research laboratories available to both the specialized agencies and the developing countries, an example which his own government would be glad to follow.

6. As to organizational matters, the consensus appeared to be that it was not necessary to establish a new agency for science and technology. With respect to the Secretary-General's suggestion for the establishment of an advisory committee on science and technology, he would recall that ACC had already decided (E/3765, para. 40) to establish a sub-committee on science and technology; it was not clear to him whether those two committees were to remain apart or to merge and he hoped that further explanations would be forthcoming. His delegation was in favour of establishing an advisory committee, but wished to emphasize the desirability of appointing to it persons of an executive type of mind, with a practical grasp of realities, who would adopt a fresh approach to the problem of drawing up priority programmes within the limited resources of the United Nations.

7. Mr. MIGONE (Argentina) said that the Conference on the Application of Science and Technology was perhaps the most important event to have occurred so far in the history of international intellectual co-operation. It had stimulated the mobilization of ideas for the development of the under-developed countries and it had led to the formulation of some very promising proposals. The under-developed world had understood its importance and its hopes must not be betrayed.

8. The impetus of the Conference must be maintained, its proposals must be disseminated, and the various multi-lateral and bilateral schemes contemplated must be encouraged. For that purpose, account must be taken of the administrative and financial resources available: a balance had to be struck between what was necessary and what was possible.

9. The establishment of a new specialized agency to deal exclusively with scientific and technical matters would be a financial impossibility. Moreover, it would upset the existing structure of the United Nations family. Questions of competence would arise and obstruct the fulfilment of the common task. What was really necessary was a sound mechanism for strengthening and co-ordinating the necessary action whether it was within the purview of the United Nations, of governmental or of non-governmental organizations.

10. The peoples of the world should be gradually convinced that it was to science and technology — subject always to universal moral principles — that they should look, rather than to violence, in their fight against the evils afflicting them. Science and technology, which had hitherto benefited only the industrialized countries and

certain privileged groups, must be mobilized in the interest of all mankind.

11. In view of existing regional differences and the diversity of the problems to be solved, action must be flexible and of many kinds.

12. The Secretary-General had proposed the establishment of an advisory committee composed of high-calibre scientists, technicians, economists and administrators. The proposal seemed to be one which might well be put into early operation to test its efficacy. It seemed unlikely that the Council could at that stage form an over-all picture of the steps it was necessary to take. The proposed committee could provide guidance and undertake appraisals in that connexion.

13. It was to be hoped that the Co-ordination Committee would consider favourably the proposals made in the Council, and that the Council would take a decision on those matters before the end of the current session.

14. Mr. KRALIK (Czechoslovakia) associated himself with the Secretary-General's statement in the report (E/3772 and Corr. 2, para. 218) that the Conference had opened a new phase in the fight against poverty, disease and ignorance. The colonial peoples had an especially heavy handicap to overcome and it was to be hoped that all delegations would realize the urgency of the problems created by the gulf between the industrialized and the under-developed countries and would be prepared to take appropriate action. Technology was one of the most powerful forces for raising living levels.

15. If appropriate action was to be taken, it must first of all be realized that the great disparity between the industrialized and the under-developed countries existed not because there was any lack of raw materials in the latter countries, or because their inhabitants were incapable of technical advancement, but because the colonialist countries had always obstructed the development of their colonies. It followed that political independence was a first step towards economic independence and that, if there was a sincere desire to help the under-developed countries, the colonial powers must be compelled to hand back the territories they had occupied in a condition which made their future development possible.

16. The fact that the natural resources of developing countries were not being properly used was not the result of defective technique; it was due to the fact that, in many of them, the rational use of resources was impeded by the structure inherited from colonialism. The Conference had confirmed that vast opportunities existed for speeding up the development of the under-developed countries. In that connexion, the scientific abstracts dealt with in document E/3618 were particularly important. Following a proposal by the Polish delegation, supported by the French and Brazilian delegations, a scientific abstracting service had been established in UNESCO.

17. Unfortunately, political considerations had prevented certain countries, which could have made valuable contributions, from taking part in the Conference. It was also regrettable that the Conference had studied only the scientific and technical aspects and not the economic and

social aspects of development. The Czechoslovak delegation therefore welcomed the Secretary-General's statement in para. 220 of his report that activities in the technical, economic and social fields were inseparable. It also hailed the unanimous opinion that there was an urgent need to strengthen national and regional scientific and economic research institutions and to train scientists and technicians in the under-developed areas. Large-scale aid should be given to those institutions, especially in fields of research which had to some extent been neglected by the specialized agencies — for example, raw materials, transport and public works and labour supply.

18. To enable the developing countries to avoid the mistakes which the developed countries had made, bilateral and multilateral aid programmes should provide them with the most up-to-date and thoroughly tested scientific information. The role of BCE was particularly important in that respect since its members comprised most of the countries highly advanced in technical and scientific matters. The activities of ECE should be intensified, though of course the work of the specialized agencies, the technical committees and similar bodies should not be forgotten. Close co-ordination, which it was the Council's duty to consider, should be ensured between the organizations concerned.

19. The proposed advisory committee should have a balanced membership and proper representation for the under-developed countries. His delegation would explain its position on the subject in the Co-ordination Committee and would subsequently submit specific proposals.

20. Mr. MATSUI (Japan) said that the Conference on the Application of Science and Technology had been unprecedented in its scope and in the variety of topics discussed. The fruits of scientific discovery should be made available to all nations for the benefit of mankind. It was with that understanding that Japan had participated actively in the Conference. The Conference had opened up new vistas and had set the stage for the increasing role which science and technology were to play in economic and social development, particularly in the developing countries.

21. His delegation agreed with the Secretary-General that the Conference must be followed by practical action (E/3772 and Corr. 2, para. 217). It had been conceived as a major event in the Development Decade and as likely to have a significant impact over the coming years in raising living levels in the less developed areas. The importance of the role to be played by the United Nations family, particularly UNESCO, in the application of science and technology could not be over-stressed. He agreed with the United Kingdom representative's views expressed at the 1271st meeting that the scientific programmes of UNESCO should be expanded and its Department of Natural Sciences reorganized so that it could deal with matters relating to applied as well as to basic science. The Secretary-General's proposal concerning the establishment of an advisory body deserved careful attention. Such a body would help the Council to sift all the scientific and technological information and enhance its work in the context of the Development Decade.

22. The latest developments in science and technology should be communicated to the developing countries in a readily digestible form. Practical arrangements should be made for collecting and disseminating the relevant information at the country, regional and international level. United Nations bodies such as the public information offices and the field offices of TAB and the Special Fund could play a valuable supporting role in that connexion.

23. His delegation wholeheartedly supported the proposals made by the Secretary-General in part three of his report concerning the development of scientific and technological centres, the increased transfer of resources from advanced to developing nations, and the judicious assessment of priorities. The developing nations were faced with a pressing need for well-trained technicians in sufficient numbers who could absorb the benefits of the technological and scientific break-throughs achieved by the advanced nations. The establishment of research facilities would best meet such a demand by providing middle-level technicians with training as well as with incentives. The United Nations system, particularly the Special Fund, could play a useful role in the establishment of those research facilities.

24. Mr. SARWATE, Deputy Secretary-General, International Telecommunication Union, recalled that his organization had taken an active part in the Conference on the Application of Science and Technology which had given a new impetus to the work of ITU, particularly that designed to benefit the developing countries; for example, three sub-committees had been set up — in Asia, Africa and Latin America — to assist developing countries in their plans for telecommunications. The Conference had also enabled representatives of the advanced countries to establish direct contact with their counterparts in the less developed countries and thus gain a greater awareness of their problems.

25. As a result of the Conference, ITU had been able to improve its research activities, particularly those within the purview of its Telegraph and Telephone Consultative Committee and its Radio Consultative Committee. An interesting development being studied by UNESCO and ECAFE was the production of cheap radio receivers that could be used in the developing countries for the improvement of mass communication and mass education.

26. He would draw attention to the second ITU report on telecommunication and the peaceful uses of outer space (E/3770), prepared in response to General Assembly resolution 1802 (XVII), part IV. That report showed that, though remarkable achievements had been secured in the past year, many problems still remained to be solved before a world-wide system of space telecommunication was established. One major step in achieving that aim would be the holding of an international conference later in 1963 for the allocation of frequencies for space communications.

27. In 1965, ITU would be celebrating its centenary. Since its establishment, phenomenal progress had been made in telecommunications. The ITU was confident that the progress already achieved in space communications

would continue and ultimately result in a world wide system available for all uses on a non-discriminatory basis, in accordance with General Assembly resolution 1802 (XVII).

28. Mr. GIRALDO (Colombia) said that the Conference on the Application of Science and Technology had been very constructive and held out great promise to the less developed countries, whose problems could only be solved by science and technology. The main objective was to bridge the gap in science and technology which existed between different countries and also between different parts of the same country, and which in some cases created dangerous situations.

29. As regards development, action should be taken on all fronts at the same time; and it should always be remembered that progress in one direction might create difficulties in another. One fact often overlooked, for example, was that campaigns to eliminate certain diseases had reduced mortality in some areas, but had at the same time presented them with a problem of under-employment.

30. With regard to the establishment of a new specialized agency to deal with the application of science and technology for the benefit of the less developed areas, he endorsed the reservations already expressed, but was sure that a solution would shortly be found to the problems involved.

31. Mr. EL-FARRA (Jordan) observed that, although the Conference on the Application of Science and Technology had been fruitful, much more remained to be done. Many constructive ideas had been put forward by previous speakers for the purpose of carrying on the good work started by the Conference. His delegation believed that the United Nations family, particularly the specialized agencies, EPTA and the Special Fund, was well equipped for ascertaining the needs of the developing countries in science and technology, although co-ordination between such bodies might be improved.

32. The countries of the Middle East were well aware of the significance of science and technology and were following international action in that field with great interest. In May 1963, the second Regional Conference on Co-ordination and Planning of Scientific Research, organized jointly by UNESCO and the National Scientific Research Council of Lebanon, had been held at Beirut. It had adopted a number of resolutions on, *inter alia*, scientific research, the planning of scientific development and international co-operation in scientific research. The Beirut conference had recommended that UNESCO should organize similar conferences every two or three years, and that UNESCO should help countries to identify their scientific problems, analyse their national scientific resources and plan their most efficient utilization.

33. The Beirut conference had recommended the following priorities: (1) the organization and co-ordination of scientific research; (2) the planning of scientific research at the national level; (3) aid to research in scientific manpower, documentation and equipment; and (4) research at the regional and sub-regional level. That conference had also expressed the hope that UNESCO would con-

vene a group of experts to study the implementation of the various resolutions it had adopted. His delegation wished to pay a tribute to the role which UNESCO had played in the Beirut conference, and hoped that it would implement the recommendations made there, taking account of the priorities established and the needs of the Middle East.

34. Representatives of the advanced countries had already pledged their support for the efforts of the developing countries to secure the benefits of science and technology. What was needed was practical action and co-operation: the advanced countries would be judged by deeds rather than words. Among other constructive suggestions, the Secretary-General had stressed the need for research institutions in the developing countries. His delegation supported that view and would enlarge upon it in the Co-ordination Committee.

35. Mr. PASTORI (Uruguay), referring to a number of problems which appeared to deserve special consideration, said that his delegation was opposed to the establishment of a new agency to deal with the application of science and technology for the benefit of the less developed countries. It had expressed the same view in the General Assembly and the Council on previous occasions, on the grounds that existing United Nations bodies — somewhat reorganized, if necessary — were quite capable of doing the requisite work. His delegation would support any move to strengthen the activities of existing agencies, if that was considered necessary to attain the proposed objective.

36. His delegation was in favour of the proposal to establish an advisory committee to promote the application of science and technology for the benefit of the less developed countries, but it was essential that the process of establishment should not delay the execution of any measures which might be decided upon.

37. The final attitude of his delegation would depend on

the structure of the proposed committee, which was just as important as its terms of reference. In particular, it was essential that the less developed countries should be adequately represented.

38. While the Conference on the Application of Science and Technology had been extremely important, his delegation regarded it as only a first stage. The results of the Conference should be followed up and discussed in greater detail. The real work of applying constantly developing science and technology for the benefit of the less developed areas had yet to come.

39. Mr. GAVRICHEV (Union of Soviet Socialist Republics) asked the Under-Secretary for Economic and Social Affairs whether the Secretariat could circulate a document indicating the nature and purpose of the advisory committee which the Secretary-General had suggested might be set up to assist the Council in science and technology.

40. Mr. de SEYNES, Under-Secretary for Economic and Social Affairs, replied that, in a document to be circulated later, the Secretariat would explain why the Secretary-General had proposed the establishment of a committee to continue the work of the Conference. The document¹ would be completed in time for the consideration of the matter by the Co-ordination Committee and would be prepared in close collaboration with the specialized agencies, as had been the case when drafting the proposals for the establishment of the committee.

41. The PRESIDENT said that, since the general debate on item 15 had been completed, the item would be referred to the Co-ordination Committee for consideration and report.

The meeting rose at 12.40 p.m.

¹ Subsequently issued as document E/AC.24/L.211 and Add.1.