

for Development (UNCSTD). Insofar as the conference itself is concerned, the most important of these was the discussion of "obstacles to the application of science and technology for development". Having as a basis a list of 31 general areas in which such obstacles might arise, ACAST pointed out that this list could be expanded to a hundred or more. It considered them by categories, each of which might be susceptible to the same type of solution at national, regional, or international level. They then fell into two broad groups : political, financial, economic and institutional obstacles to development; and those involving education and human resources, the availability and dissemination of information, and the psychological problems inherent in any society subject to the pressures inseparable from rapid development.

ACAST's suggestions stress the need for an integrated approach to specific problems that are seen as capable of reasonably early solution. Thus, to give a few examples: to improve the communication gap in a given country between its scientific and technological community, decision-makers and users, well-mandated national advisory a council might be set up, that would monitor trends and developments and interpret them to the leadership, as well as interpret political goals and objectives to the scientific and technological community. At the regional level, programmes of common interest could be identified as part of regional economic planning policy, with a regional machinery to coordinate and evaluate their performance. At a practical level, regional servicing facilities might be established, to maintain and service the special equipment of all developing countries in the region; it could maintain a spare parts bank to avoid the harrassment of delays in obtaining equipment spares. With regard to information at both regional and international levels, there should be a network of information systems not only to act as a data bank, but also to assist in collecting trends of development in technologies and to interpret their implications for developing countries.

ACAST concluded that "at the national, regional as well as international levels, the psychological obstacles can only be removed by redesigning and strengthening the education, training and information systems".

Recognising social science

Finally, ACAST briefly discussed its own future. Obviously, if something like the UN Centre for Concerted Action and Coordination on Science and Technology described above is set up, there would be a function for a small body similar to ACAST, and this is already foreseen in the suggested "committee of top-level experts". One point of which ACAST is now well aware is the need to include, in whatever body replaces it after UNCSTD and as a result of the restructuring exercise, representatives of the social sciences. The intention was never to include these when ACAST was set up in 1964, but their presence is at last seen as essential if a balanced view is to be obtained of what science and technology are doing, can and should be able to do, in the world as a whole. This much is now recognised. But whatever the decisions of the General Assembly, which has the final say in ACAST's future, it is certain that some such body must exist if the UN Secretary-General, essentially preoccupied with political affairs and the infighting of the UN system, is to be kept aware of what is happening in the science and technology on which the world increasingly and inevitably now depends.

Racial resegregation measured

DESPITE decade-long efforts to integrate schools, increase individual welfare payments and revitalize central cities, the underlying conditions attacked by these programs remain almost unabated, according three reports delivered at last week's meeting of the American Sociological Association in San Francisco.

A new study of school integration and the so-called "white flight" of middle class caucasian families to suburbs from the city centres reestablishes the seriousness of this problem, first treated in a controversial report by James Coleman in 1975. Coleman's treatment was severely criticized at the time for neglecting concurrent demographic changes and not distinguishing between forced and voluntary desegregation.

Now, David J. Armor of the Rand Corporation, Santa Monica, California, has analysed integregation statistics by estimating what out-migration of whites would have taken place anyway, taking into account the different birth rates between whites and blacks, and comparing the results of court-ordered busing to voluntary methods of desegregation. He concludes that forced integration accelerates white flight by a factor of from two to four, but that voluntary integregation may not accelerate it at all.

He compares specific cases by using a "desegregation index", defined as the average percentage of white students in schools attended by minority students. (If minority students were divided among all American schools completely randomly, each school would have a desegregation index of 70 to 80. The smaller the index, the less integration.)

Armot found that, with the beginning of court-ordered integration, the index for a particular school district usually jumps. In one year, the desegregation index of Pasadena, California, rose from 37 to 53. But over the next seven years, it steadily dropped back to 35, in 1977. By comparison, nearby San Diego started its voluntary busing plan in 1968 with an index of 43. The index rose gradually to 46 and has now slipped back to 44.

During roughly the same period, a variety of programs were introduced to help raise the average income of blacks and other minorities. A report by Robert B. Hill of the National Urvan League Research Department shows that again many early gains have been eroded by the "benign neglect" policies of the Nixon and Ford Administrations and the two severe recessions of the early 1970s.

John Douglas