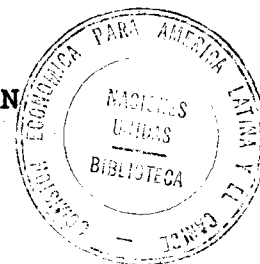


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ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN
Subregional Headquarters for the Caribbean

CARIBBEAN DEVELOPMENT AND CO-OPERATION COMMITTEE



REPORT OF A CONSULTATIVE FORUM:
HIGHER-LEVEL HUMAN RESOURCE DEVELOPMENT STRATEGIES
IN THE CARIBBEAN SUBREGION OF THE 1990s

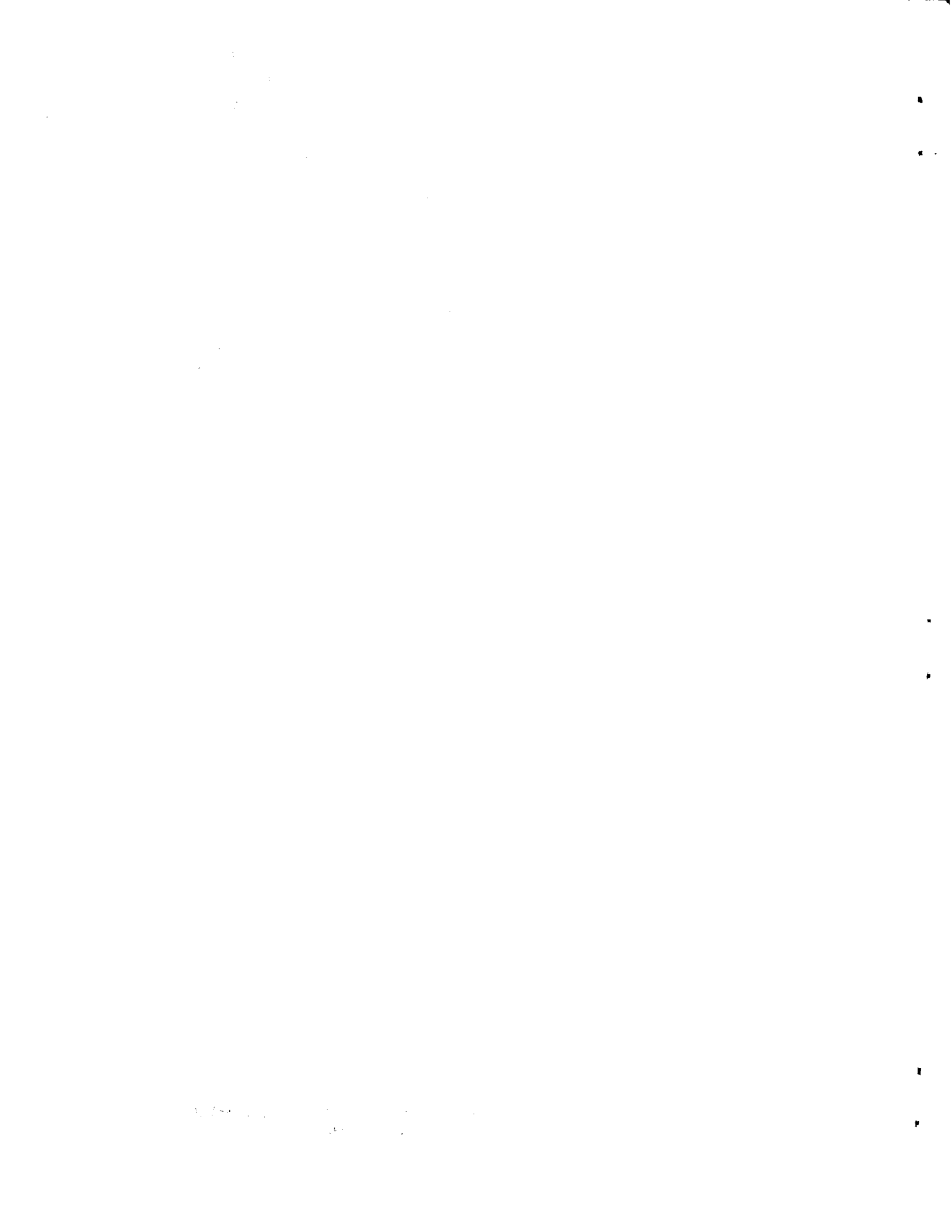
Barbados, 29-30 November 1990



UNITED NATIONS

ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN
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REPORT OF A CONSULTATIVE FORUM:
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I. Background and rationale

A major consequence of the "development" experience of Latin America and the Caribbean in the 1980s became patently visible in the declining standards of living suffered by the vast majority of our populations. Thus, it has been possible for the numerous documents of the Economic Commission for Latin America and the Caribbean (ECLAC), Santiago to so aptly describe the magnitude of the setbacks suffered during that era as the "lost decade."

The demands and challenges to overcome the crisis in which our economic, social, political and cultural institutions have become engulfed must clearly be a logical point of departure for us to pursue a critical rethinking of approaches to development. The pursuit of alternative strategies and the search for what amounts to a new paradigm or paradigms will of necessity require systematic attention to the policies and institutional arrangements, both formal and non-formal, as they relate to the development of human resources.

An interesting effort aimed at meeting the challenges of the 1990s which face our region has been presented in ECLAC's policy statement, Changing Production Patterns with Social Equity (ECLAC March 1990). As the title suggests, there is a clear recognition and conscious orientation that an inevitable connection must be made between the productive structures of an economy and measures aimed at abolishing social inequalities. The implications of this awareness or better put, this axiom of social change derived from principles of political economy, will no doubt have tremendous bearing on how "the human factor", or the role of people is brought to its rightful and pre-eminent position in development planning.

The ECLAC document in referring to "the prime common task of all the countries: the transformation of the productive structures of the region in a context of growing social equity", (1990:12) has advanced the view that:

"Debilitated economies, societies and states can hardly tackle this mass of demands successfully without carefully weighing, in a climate of consensual mutual support, various kinds of options, priorities and sacrifices."

With particular relevance to the need for ongoing dialogues on policy issues, it is further stated that:

"the task is so great and so complex that it would hardly be possible to tackle it from a single holistic

perspective, especially in view of the enormous diversity of situations which exists in the region."

In light of the above, there seems to be a clear indication that:

(a) The enormous diversity of situations in the Caribbean must be taken into account and fully analyzed and explored;

(b) A climate of consensual mutual support will be essential in our task of weighing various options, priorities and sacrifices;

(c) The pre-eminent position of the human factor and a context of growing social equity are intrinsically linked to "education and training" which are now commonly referred to as "human resource development".

This search for a new paradigm to which ECLAC is directing its full attention, thus implies a renewal of concentrated efforts to understand and overcome the neglect of the social sector. The implications of this will require concrete changes in policies and programmes related to education and training as core components of the social sector.

The present report can therefore be cited as a contribution to the pursuit of "weighing options and priorities" in the general area of "education and training". It has emanated from a Consultative Forum on Higher-level Human Resource Development Strategies, which was held in Barbados on 28 - 29 November 1990, in keeping with the work programme of the project on the Promotion of Training Policies in the Caribbean Subregion, being executed by the secretariat of the ECLAC/Caribbean Development and Co-operation Committee (CDCC)¹ in Port-of-Spain.

The rationale for the forum was based on a perceived need to reflect on issues critical to developing new and reorienting

¹ The ECLAC Subregional Headquarters for the Caribbean in Port-of-Spain was established in 1966 to serve the English and Dutch-speaking countries of the Caribbean. Since 1975, the Caribbean Development and Co-operation Committee (CDCC) was formed as a permanent subsidiary body of ECLAC with the aim of promoting and strengthening technical and economic co-operation among its member countries and between them and other developing countries. The CDCC comprises the 16 Caribbean members of ECLAC: Antigua and Barbuda, the Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Christopher and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago, and the five Associate Members: Aruba, the British Virgin Islands, Montserrat, the Netherlands Antilles and the United States Virgin Islands.

existing areas of specialization at the professional level with a view to enhancing "human capital formation" for the benefit of the Caribbean region as a whole. An underlying assumption is that social and economic development in the region will require a significant upgrading of higher-level skills, acquisition of pools or teams of specialists in new areas and reorganization of established institutions or creation of new mechanisms (formal and/or informal) to assist in the delivery of the required skills.

One might also note the related concerns to expand higher education to enable it to assume the role it is expected to play in the future development of the region. The Bourne Report on "Caribbean Development to the Year 2000" has placed considerable emphasis on human resource development. A Regional Economic Summit of CARICOM countries, scheduled for late February 1991 will examine, *inter alia*, reports of regional consultations on human resource development and science and technology. The West Indian Commission is also addressing the question of human resource development.

Within this range of initiatives and noting the various stages of gestation at which they are functioning, the ECLAC/CDCC project on training policies was considered to be particularly well-placed to explore collaboration beyond the CARICOM member States so as to include the wider Caribbean region. Moreover, the forum and its follow-up activities were envisaged as a mechanism to explore Caribbean experiences based on various approaches to education and training as an integral element of the overall process of a multi-sectoral transformation of Caribbean economic and social structures.

Mindful of the extensive attention being provided by United Nations Educational, Scientific and Cultural Organization (UNESCO) in its programme of "Education For All" and through such agencies as the World Bank for "tech-voc" education in the Caribbean, it was thought that participants at the meeting could focus their attention on other areas. Hence it was agreed to initiate a critical review of the major assumptions which underlie the approaches to, and subject-areas pursued in, professional training at the degree and higher-degree levels by Caribbean institutions. Discussions would also focus on an examination of methodologies currently used to identify needs for higher-level trained personnel in the public sector, given the constraints of increasing costs of tertiary-level training.

The consultative forum was planned so as to achieve the following objectives:

(a) Greater clarity in understanding the rationale and urgency for special attention to "human capital formation" at the professional level;

(b) Heightened awareness of the role and functions, strengths and limitations of current institutions or programmes concerned with education and training;

(c) Establishment of an agenda and terms of reference by which identified needs for training and "retraining" in new areas of specialization and reorientation of existing ones can be met.

An upper limit of 20-25 persons was invited with representation from ministries of education, directorates of planning, personnel division, tertiary-level institutions, regional organizations and donor agencies. A list of 18 participants who attended is provided in Appendix 1².

Two background papers were prepared: "Education and Training in the Commonwealth Caribbean - A Historical and Philosophical Overview" by Kathleen Drayton of the University of the West Indies's (UWI) Faculty of Education and "The Human Resource Sector in Caribbean Development" by Desmond Brunton of the Caribbean Development Bank (CDB). Presentations by participants also highlighted:

- (a) Planning for human resource development in Barbados;
- (b) The Barbados Community College: An overview;
- (c) Trinidad and Tobago's National Institute for Higher Education, Research, Science and Technology (NIHERST);
- (d) CARNEID's approach to educational innovations;
- (e) The Sir Arthur Lewis Community College of Saint Lucia;
- (f) Tertiary-level education in Aruba;
- (g) Human resource planning in Saint Christopher and Nevis;
- (h) Developing a technological capability at the University of Guyana;
- (i) Social sciences education and training at the University of Suriname.

² Other than resources from the ECLAC/CDCC project funded by the Government of the Netherlands, the Foundation of International Training (FIT) with support from the Canadian International Development Agency (CIDA) contributed to the attendance of participants from CARICOM member countries.

Although no participant from Cuba attended, a paper prepared for the meeting on "Higher Education in Contemporary Cuba" was circulated.

II. Conceptual issues

Background papers for the meeting were prepared by Kathleen Drayton of the Faculty of Education, UWI, Barbados and by Desmond Brunton of the Productive Sector Division in the CDB³.

Drayton's presentation, "Education as a Commodity", examined the historical and philosophical context of education in the Commonwealth Caribbean. At the outset, the paper pointed to the correspondence between the quantity and quality of schooling in a society and the needs of the social and economic structure. Reference was made to apprenticeships for labourers, coopers, blacksmiths and pan boilers during slavery; and after slavery, the need for "the coloured races" to learn "domestic and social duties" gave rise to elementary schools - teaching, reading and religion, but not initially writing.

Secondary education for small numbers of the middle and upper classes was available late in the nineteenth century. "Free" secondary education for all was accepted as a societal goal by the 1960s along with the notion of higher education for some. An underlying factor was the need of newly independent countries for better educated people to take the places of departing expatriate colonial officers and satisfy the demands of economic modernization.

It was further shown that one of the more remarkable nineteenth century exports to the British Caribbean was an education system with two major functions. First was that of social control and crime prevention. The second function, referred to by a sexist phrase, according to Drayton, was the satisfaction of "manpower needs". Thus, attention was drawn not only to the manner in which the West Indian colonial mind was created in our schools but also to the notion that the language in which we define concepts is biased and is itself a product of the dominant economic paradigms.

Significance of this was shown in relation to economic views on "human capital formation" first advocated by T.W. Schultz in 1961 with explicit ideological connotations and the assumption that investments in education and training enabled people to earn larger slices of the economic cake. Since this simple relationship postulated between "education and earnings" was found to vary in regard to race, class, culture and gender in American society, the

³ Copies of these papers are available as CONS/91/1 and CONS/91/2 respectively.

importance of the wider social structures in explaining individual success and failure became apparent.

The paper endorsed a more critical approach to prevailing notions on the role of education and training in development, urging greater questioning of the concepts and language used which may inhibit new creative responses to problems of higher-level human resource development for Caribbean societies.

Attention was therefore directed to what may be some of "the tasks of Caribbean universities and their intellectual workers":

(a) The preservation and extension of the right to education so that knowledge does not become "a commodity only available to those who can pay for it";

(b) Analysis of ideologically determined purposes and functions of universities, establishing what they actually do, "as distinct from what we think they do";

(c) Analysis of content, materials and curricula to assess what knowledge, skills and values are being transmitted;

(d) More investment in education research and the distribution of indigenous knowledge already acquired;

(e) Assessment of teacher education since the quality of the teacher is a significant variable in optimising educational output;

(f) Attention to an education system which generates a critical self-consciousness and the ability to think and to reflect rather than emphasize technical education at the expense of general and diversified curricula.

The second background paper was entitled "The Human Resources Sector in Caribbean Development in the 1990s". In his paper, Brunton noted the significant contribution education and training made to the development process by improving the skills and productive capacities of a labour force while furthering "the effectiveness of investments in physical capital, family planning, health and nutrition". It also indicated that "increasing access to education contributes positively to a more equitable income distribution and to reducing poverty".

Given contemporary technological advances worldwide, it was apparent that human resources development had become even more important. This was seen as requiring a skilled and flexible labour force operating under innovative management as development policies are likely to be critically dependent on knowledge-intensive economic enterprises. In such a context Brunton proposed that the 1990s will require more investment in higher-level education.

But interestingly, these increased demands on education systems in the region, occur at a time of serious economic difficulties, both globally and regionally. As a result, the paper attempted to stimulate a discussion on "fundamental changes in approach" which will be necessary in all sectors, including education.

A concise description of the economic environment in the 1990s was provided by reference to the following major features:

- (a) Reduced flows of external resources;
- (b) Reduced access to preferential marketing arrangements;
- (c) Increased importance of environmental issues;
- (d) Deepening of the regional integration movement;
- (e) Greater reliance on the private sector;
- (f) Reform of financial systems;
- (g) Mobilization of domestic savings.

In light of the above, the human resources sector assumed a growing importance in Caribbean development consonant with technological changes transforming the world economy. As a consequence, economic development needed to be perceived as depending increasingly on "the capacity to acquire, transmit and apply knowledge to work and everyday life", according to a recent World Bank discussion paper.⁴

Brunton, therefore, proposed that a response by the Caribbean human resource sector will need to examine "innovative financing methods ... if overall investment is not to be reduced". Among available policy options, attention was centred on:

- (a) Cost recovery schemes through the introduction or increase in fees for university and other forms of higher education, combined with reinvestment of funds in the sector to incorporate equity considerations by means of selective scholarships to eligible candidates from lower-income groups;
- (b) Student loan schemes to facilitate financing of current education out of future earnings and mainly through commercial

⁴ This stimulating and well-researched document offers a critical review of approaches to the role of "human capital" in development. See W.D. Haddad, M. Carnoy, R. Rinaldi & O. Rengel, "Education and Development: Evidence for New Priorities" Discussion Paper #95. World Bank, 1990.

banks and development finance institutions backed by government guarantee;

(c) Involvement of the private sector by providing full or partial scholarships, direct contributions, funding of research and development activities, and incorporating higher-level training opportunities in compensation packages.

Following on the above suggestions, a strong case was made for improved efficiencies, internal and external, of educational systems. Internal efficiencies include optimising of educational output while external efficiency is concerned with the extent to which investment improves employment prospects and productivity of students. To achieve both of these, more attention ought to be given to using pedagogical methods that are more effective. Closely linked to both of these is the availability of good teaching materials as "one of the most cost-effective determinants of learning achievement" accompanied by improvement in the management of tertiary institutions.

A major thrust for external efficiency will require "the closer linking of higher-level education with the agriculture, industry and service sectors so that highly diversified needs of the labour market can be adequately met". In addition, there should be "further development of the institutional capacity to formulate and implement educational policy ... appropriate to identified needs and to plan, analyse, manage and evaluate training programmes".

By way of conclusion, the author emphasized the critical importance of the right mix of human resources and the need for flexibility in the labour force so as to respond to changing demands of the market and to adapt to the shifts in our economies. This will mean Caribbean governments will have to spend considerably larger amounts on education, if the knowledge gap is not to be widened.

III. Approaches to training: Selected Caribbean Experiences

A. Barbados

Other presentations were made describing institutions and approaches at the tertiary level in Barbados with regard to programmes at the Ministry of Education and the Barbados Community College.

In his address, the Chief Education Officer of Barbados made reference to the need to revise mechanisms by which persons are selected for training and to make greater use of professionals who are already trained. It was less important for mere seniority or length of service in the public sector to be a criterion for

participation in further training. Rather, the emphasis must be on merit and priority of needs for the improvement of the public sector.

The Ministry of Education in Barbados was giving serious attention to the upgrading of its educational planning unit. Of considerable importance, according to the Chief Education Officer, was the need for a clarification of the roles of various training institutions and for more effective co-ordination between various agencies involved in education and training. The relationship between research in universities and the research of ministries was a case in point. Barbados was very interested in examining methods to update the storage and retrieval of planning information in the educational sector.

Mechanisms for institutional evaluation, appraisal of teaching methods and a clear curtailment of consultancies by foreign experts were some examples of topics for technical co-operation in the region. The quality of teachers in all educational institutions could not be over-emphasized.

A presentation was made on the general approach to tertiary education by the Barbados Community College. The basic thrust of its programmes was conceived so as to satisfy a compulsory core of subjects in three areas: (a) English and communication; (b) Caribbean politics and society; and (c) ethics and citizenship; plus specific electives depending on the respective areas of technical training. The choice of electives avoided placing narrow barriers between areas in which associate degrees were awarded. The impetus for programme development was derived from the needs of professional associations, university entrance requirements, trade unions and private or public sector organizations.

The College was constantly examining areas for innovations so as to meet needs of Barbados and other Caribbean societies. This was readily apparent in recent programmes for library assistants, paralegal officers, computer studies and business administration.

According to the Principal, some serious appraisals should be directed at the categorization of "tech-voc" training courses which can be very costly in terms of suitable teaching equipment and laboratories for rather specialised areas. A broader concern might be sound scientific preparation for technological changes relevant to the economic needs of the region.

Some useful areas for collaboration would include the development of rigorous methods for assessment of training needs in addition to "manpower" surveys and advisory committees; monitoring graduates by tracer surveys; access to databases to provide exchange of information on institutions and programmes at the tertiary level; ways of ensuring more scientific management of training institutions and ongoing consultative methods to enable

the planned use of trained personnel through staff exchanges between tertiary-level institutions.

B. NIHERST in Trinidad and Tobago

A brief presentation was made on the National Institute for Higher Education (Research, Science and Technology) - (NIHERST) - of the Government of the Republic of Trinidad and Tobago. The meeting was informed that approximately 1000 students were enrolled in courses at NIHERST through the School of Languages, the Information Technology College, the Colleges of Allied Health Sciences and of Nursing.

On the basis of recommendations from a Community College Task Force, it was expected that an institution offering a two-year degree programme would be set up by September 1991. In addition to the above, other tertiary-level institutions to be brought under the aegis of NIHERST would be the already established two technical institutes, an hotel school and an intermediate college of agriculture and forestry.

The operations of NIHERST would in the course of time be conducted from north and south campuses along with centres of learning. A long-term perspective was being articulated so that the Institute could embark on new offerings at the associate and degree levels which might be subsequently absorbed into full-time university courses. It was intended that NIHERST, as a national institution, and UWI, as a regional institution, would complement rather than duplicate efforts.

Many queries were raised about the extent to which the goal of complementarity was being attained and what mechanisms could help to improve this. The general discussion emphasized the need for ongoing dialogue among tertiary-level training institutions, exchange of information on methodologies by which training needs were identified and for mechanisms to introduce curricula changes and improve training delivery systems.

C. UNESCO/CARNEID

The Caribbean Network of Educational Innovation for Development (CARNEID), established in 1981, is a UNESCO mechanism aimed at assisting Caribbean countries to relate educational systems more effectively to national development goals. Twenty countries of the Dutch, English, French and Spanish-speaking Caribbean participate in the network through 51 associate centres which comprise national development groups, governmental or non-governmental, engaged in innovative educational programmes.

A co-ordinating centre in Barbados serves as a facilitator for all activities and as a clearing-house for information and

documentation. A work plan of the network is decided on every two years and the current priority areas are:

- (a) Information and Documentation;
- (b) Education for All;
- (c) Planning Organization and Implementation of Educational Policies;
- (d) Education Training and Society;
- (e) Education and Culture.

There was much concern for a more effective sharing of information and a better co-ordination of activities between such agencies as the Caribbean Centre for Development Administration (CARICAD) and CARNEID. The attention to teacher training and the training of educational researchers was considered of significant importance for overall improvement in educational systems and it was hoped that the results of these efforts by CARNEID would be widely distributed. Very close collaboration would be fostered between CARNEID and ECLAC so that educational planning and economic planning can be more mutually supportive.

D. SALCC in Saint Lucia

A paper on the Sir Arthur Lewis Community College (SALCC) of Saint Lucia was presented by its Principal, who offered a futuristic orientation on how the evolution of the Institution might be perceived. It was said that three functions seemed critical for a tertiary institution such as the SALCC, as follows:

- (a) Development - "It will become increasingly important for our students to understand the implications of the humanities and technology for our society; to learn how to communicate with others whose knowledge lies in fields other than their own. The College of the future will have a special task to build bridges between what we know and what other people know; to facilitate communication with the cultural community, the academic community, the rural community, the young community and the world community. We will need more innovation and less imitation".
- (b) Integration - "Here I am referring to the development of the person, helping the student become more aware of his own values and value commitments; helping him establish his own expectations in ways that are meaningful, realistic and rewarding; helping him understand the close

relationship between the knowledge and skills acquired and his responsibility to improve his technical skills and enrich his life with beauty".

- (c) Preparation for a Career - "Our institution cannot escape preparation for an occupational role in society. In fact, tomorrow's classroom should be an entrance into the world of work; not an escape from it. Ways of recognizing work experience will have to be found as well as working more closely with business and industry and using other facilities where possible".

To fulfill these functions, a new capability and a new delivery system which recognizes "distance" as perhaps the greatest single reason for inaccessibility to tertiary and higher education, will be required. Appropriate telecommunications systems will, of course, need to be devised.

It was also suggested that an important consideration for tomorrow must be the role and use of research in development, especially in the development of tertiary institutions.

"It is sometimes felt that the absence of a strong innovative spirit may be traceable in part to the very nature of traditional educational research. In a recent issue of the Educational Researcher, the point is made that the largest urban districts are moving towards school-based management, which grew out of studies showing that school autonomy is associated with school effectiveness. How I wish we can point readily to improvements and innovations that stem from our Caribbean research. There is quite a gap between what is done in education and what research studies indicate should be done. I have a hunch that certain interpersonal relationships in an educational institution may very well be the most important ones to consider in initiating and sustaining innovation. If my hunch is correct, then with relevant knowledge and information we could modify adaptability of personnel, change or create structures and embark on specific processes. This is a task for research. Our College may find that tomorrow may require more attention to be paid to the practical applications of research. The need is great now and will become greater tomorrow for presenting research findings in a useful and understandable manner."

In conclusion, the Principal indicated two facets of the College's responsibility which were permanent:

(a) To provide good quality preparation and training to enhance the personal development of the students and to enable them to contribute significantly to the development of our country;

(b) To examine, evaluate and certify that the College has provided the necessary and appropriate training and that the

students who have been certified by the College, bear and reflect this hallmark.

E. The University of Aruba

The brief presentation by the Registrar of the University of Aruba, pointed to the high proportion (50-70 per cent) of persons who go abroad for training but do not complete courses of studies. Also it was considered unfortunate that no continuous examination of professional training needs was being undertaken. The absence of a supporting environment for young professionals was also a reflection of very ineffective policies.

The fundamental need for co-operation with other tertiary institutions was considered essential and, in general terms, the Registrar was of the view that a Human Resource Development Plan for the 1990s, on a Caribbean-wide scale, was necessary. As a multi-faceted strategy, such a plan would enable optimum utilization of all institutions and strengthen existing forms of co-operation. It was proposed that an outline of a proposal for such a regional co-operation programme in human resource development should be prepared as part of the follow-up activities of the Forum.

F. Human Resource Planning in Saint Christopher and Nevis

The Director of Planning of Saint Christopher and Nevis provided a comprehensive overview of his government's current policy and the approach adopted for a manpower planning exercise that was in progress. Reference was made to the programmes and institutions within the country addressing human resource development. These included a College of Further Education, Public Sector Training Programmes, University training awards and participation in a Labour Force Market Information System adopted by Ministers of Education.

According to the Planning Director, "human resource development is an integral part of our four-pronged strategy for social and economic development" and is "vital to the growth of the other three elements - agriculture, tourism and industry." This policy "emphasizes the importance of optimum utilization of human resources in order to ensure the development of individual creativity, self-worth and general capabilities, while at the same time, responding to and meeting the needs for skills in the labour market."

In this regard, the paper noted the criticisms levelled at the notion of "manpower planning" as far as "its value as a guidepost for educational planning" and the many unanswered questions about "the relationships between the structure of occupations in the economy and the educational requirements for jobs." However, "manpower forecasts" are still suitable as a sound basis to guide

policy formulation but it has been more a lack of reliable and comprehensive data on the human resource situation that constitutes the constraint.

To satisfy this need, the Government of Saint Christopher and Nevis has undertaken a manpower planning project comprising:

(a) A census of the public sector, incorporating a description of existing skills and vacancies along with work activities, training and utilization;

(b) A survey of small and large establishments in the private sector to assess occupational demand, vacancies and projections for skills;

(c) An analysis of output from educational and training institutions to determine the potential flow of new entrants to particular occupations;

(d) Analysis of migration data to develop estimates of attrition rates for specific occupations;

(e) Estimations of the balance between manpower demand and supply in order to identify skills' gaps and assess training needs.

The data of this project was still being analysed and reference was made to the fact that the consultants involved were from the Caribbean - hence illustrating a practical way in which regional co-operation through the use of local expertise could be encouraged.

Looking towards the 1990s, the paper was of the view that:

"the over-riding goal of enhancing sustainable growth and development could only be achieved through sound strategies which include human resource development strategies that take full account of the issues below and their impact on increased production and productivity..."

Those issues include:

(a) Safeguarding the environment and the training in the management of natural resources;

(b) Strengthening science and technology institutions with the encouragement of indigenous research and development;

(c) Organizational and managerial development;

(d) Reform of the educational system.

These initiatives and concerns of development planning in Saint Christopher and Nevis were extremely helpful in directing the meeting to request that empirical case-studies should be conducted on factors which contribute to the loss of skilled personnel ("the brain-drain") and recommendations sought to overcome the associated problems. It was also apparent that greater flexibility in tertiary-level education was necessary so that changing economic environments can be addressed with adequate supplies of human resources.

Discussions were also centred on suggestions about ways by which postgraduate training across the region could be rationalized.

G. The University of Suriname

Following the Saint Christopher and Nevis presentation, a paper was read on the character, functions and problems of social science education at the University of Suriname in the 1975-1990 period. Reference was made to the establishment of the University in 1966 which arose out of a continuation of an 80-year old Medical School and a School of Law which had been in existence for the preceding 15 years. The Faculties of Social Science and Technology were of more recent origin, being established in 1975 and 1977 respectively.

Social science education was seen as evolving over three periods:

- 1975-83: In which the major assumptions underlying the curricula and research were an integration of theory and praxis and interdisciplinary education and research;
- 1983-88: During the military regime which saw the integration of the previously autonomous Faculty of Law within Social Sciences and the addition of a new Department of Public Administration. With the other two departments of Economics and Sociology, a comprehensive approach was adopted based on the assumptions that: (a) education and research should be development-oriented with emphasis on a regional and national orientation; and (b) a development-oriented university should focus on the emancipation of the deprived classes and decolonization;
- 1988-90: With the installation of a civilian government, attempts were made to restore the curriculum of 1975-83 and the re-establishment of law as a separate faculty.

In an assessment of the above process, the following strengths and limitations were observed.

Strengths

The attempts to innovate university education in the 1980s according to the comprehensive approach, yielded some positive results.

(a) Establishment of a minimum of three faculties and a maximum of disciplines or departments within those faculties: social science, technology and medicine. The advantage of the reduction from five to three faculties was that the costs can be reduced as well as the organizational fragmentation of education and research overcome.

(b) Joint basic courses for four departments in the social science faculty, e.g. philosophy of social sciences; history and developmental problems of Suriname; statistics; and general scientific skills.

(c) Diversification of co-operation agreements with other universities, whereby inter-university agreements are south-south, regional and north-south.

Limitations

Despite the serious attempts undertaken in the 1980s to be innovative, generally speaking, the goals of the comprehensive approach were not achieved. This failure was due to political, technical and organizational problems. The current limitations of social science education are:

(a) The predominant mono-disciplinary approach in education - This hampers the creation of insights and solutions as regards today's development problems (e.g. the parallel market, mismanagement of state-owned enterprises, weak political leadership).

(b) Too scholastic an approach - This is characterized by classical didactic methods (lectures, written examinations) resulting in merely reproduction of existing and imported knowledge mostly from the developed countries. Furthermore, a practical orientation and "learning by doing" are absent or insufficiently applied.

(c) Marginal research activities and research output - This corresponds with the too heavy emphasis on scholastic education, compared to research and experimentation. The limited research capability is directly related to the absence of adequate promotional incentives for the academic staff.

(d) **Absence of promotion policy** - There is a juridical framework for promotion of academics. However, an instrument to evaluate and promote the academic staff is absent. As a consequence there is little or no vertical mobility of academics, and thus no stimulus for innovative production in education or research.

(e) **Bureaucratization of the educational system** - The existence of unnecessary procedures and regulations, which hamper an easy flow of information and which is costly in terms of labour are very prevalent.

(f) **Brain-drain and brain-waste** - The brain-drain from developing countries to the metropole has become a familiar feature. In particular, during periods characterized by a severe political and socio-economic crisis, there is an increasing number of migrating professionals. An even more important problem is the enormous brain-waste of local experts and professionals, both within and outside the university. Brain-waste refers to the under-utilization or even non-utilization of local experts and academics in policy formulation. Even worse, local professionals are nowadays often reduced to merely collectors of raw data, while the interpreting and reporting is done by extremely expensive foreign consultants. The situation as regards human resources reflects an unfavourable division of labour, which is identical to the division of labour with respect to the exploitation and processing of natural resources in developing countries.

To address the above situation, it was proposed that the following measures should be given high priority:

(a) New areas of training of students and retraining of graduates should be identified. From the Suriname experience, some key areas for "education and research" are among others: local entrepreneurship; small-scale enterprises; resource-based industrialization and environmental management; changes in the policy-decision-making structures in developing countries; current international, technological, economic, political and social transformations and the implications for Caribbean societies.

(b) The educational and research approach should be problem-oriented, rather than mono-disciplinary.

(c) A clear promotion policy should be developed in order to strengthen and innovate educational and research activities. This policy should be based on objective criteria of evaluating the performance of members of the academic staff.

(d) Closer co-operation between research and development institutes with governmental planning bodies.

(e) Regionalisation - For Suriname, this means that the now existing umbrella agreements with universities in the Latin American and Caribbean region should be operationalized by joint working programmes. Further new agreements with other universities should be formulated, in particular, in those developmental areas that are of common interests.

H. The University of Guyana

The paper on the Faculty of Technology at the University of Guyana provided an interesting sequel to "social sciences" at the University of Suriname. Although the University of Guyana came into existence in 1963, a Division of Technical Studies was not instituted until 1969 and the Faculty of Technology in 1972.

The Faculty originally offered two distinct programmes, the General Technical Diploma and the Higher Technical Diploma in architecture and building, civil, electrical, mechanical and mining engineering. Degree programmes were introduced in 1979 with the distinct philosophy aimed at the education and training of technicians and engineers to undertake professional work in design engineering, research and development.

A four-year degree programme is so structured that students first complete a two-year diploma and, depending on the level of performance, continue with the degree courses. Industrial training and experience are considered integral parts of the curricula so as to provide exposure to technological developments and train high quality engineers and technicians.

The Faculty recently introduced an Advisory Board, consisting of members of industry, education and professional organizations to make recommendations on:

- (a) Programmes and their relevance to industry and the country's needs;
- (b) Research activities; and
- (c) The placement of graduates and staff within industry.

Another innovation by the faculty has been the introduction of an industrial liaison officer whose main functions are:

"to develop and maintain an industry-university link to acquaint industry of the various programmes conducted at the university and the general trend in manpower production and research embarked upon ... (and also) ...

to assist and advise in the modification of existing programmes and structuring of new courses to meet the manpower

demand of Guyana and promote the adaptation of new technology and research methodology within the faculty".

A positive outcome of the liaison activities has been the introduction of a 10-month and three-month industrial training attachment for the diploma and degree programmes respectively.

Specific measures to foster collaboration among Caribbean countries were proposed as follows:

- (a) Exchange of students and staff;
- (b) Development of specialised expertise in certain locations such as mining engineering and hydrology in Guyana;
- (c) Collaboration in research projects;
- (d) Rationalization of post-graduate courses in science and technology.

Reference was made to the need to "avoid duplication in certain subject areas". The case of course offerings in architecture at the University of Guyana since 1970 was cited as a matter of concern since the College of Arts, Science and Technology (CAST) in Jamaica had recently embarked on a similar course.

By way of conclusion, the paper made the plea that:

"industry needs to play a more dynamic role by investing in research and training of engineers, technicians and technologists, and by making available the necessary infrastructure for the efficient running of institutions where these skills are provided.

If we are to make an impact on the world economy in the 1990s we have to accelerate our efforts to provide skills in science and technology. The implementation of extensive manpower training, intensive research and modernized machinery in general will result in improved quality and quantity of products which will enhance our competitiveness in the international markets."

From the foregoing presentations and papers which highlighted the approaches of the organizations represented, it was possible to identify several problem areas and fundamental concerns in education and training that needed to be addressed. In an effort to arrive at as clear a definition as possible of the major issues, a plenary session of "brain-storming" preceded a summing-up of what could be the basis for follow-up action.

It was agreed that a proposal for ongoing collaboration across the Caribbean in matters of human resource development, especially at the professional level and in new areas of specialization, should be prepared. A networking mechanism among participants and through their institutional affiliations would also be pursued. If a Consultative Forum of this nature was to bear fruit in the long run, it was thought advisable that: (a) exchanges of information; (b) joint research studies; (c) the review of case-studies that could lead to policy changes in areas of training; and (d) opportunities to be mutually supportive at a national and regional level, be explored as the basis of a project activity which takes into account similar or related initiatives by other regional organizations.

While avoiding duplication, the gaps of geographical coverage and substantive issues in training would be able to clearly indicate what can be effectively done to expand our knowledge in the areas of human resource development and provide useful information for governments and tertiary-level educational institutions.

IV. An agenda for collaborative action

From the plenary discussion and to assist in planning another stage of joint activities, the following issues were identified that could be incorporated into the work programme of ECLAC's project on training policies:

(a) A human resources inventory of the specialized areas of expertise available within the Caribbean region. Since similar efforts such as the CDB's Caribbean Technology Consultancy Services (CTSC) Network or CARICOM's Register of Experts have been undertaken, it will be necessary to enquire if any gaps need to be filled and what mechanisms exist to make the registered personnel available. Expertise in educational planning, administration and training needs assessment may need to be identified. The feasibility of a Regional Skills Bank with computerized access from convenient focal points should be explored;

(b) Areas in which computer-based information systems can improve the management of education and training institutions, should be investigated. Associated with this could be explorations about computer-based learning modules and training methods;

(c) Critical analysis of textbooks should be undertaken so as to identify values, attitudes and self-perceptions as well as historical roles that are being propagated in the formal educational system;

(d) Approaches to teacher education and the impact of these should be studied from a comparative perspective so that an exchange of experiences in this area can be pursued;

(e) Methods for dissemination of research findings that could inform decision-making about our educational institutions need to be made known and put to use;

(f) Case studies of tracer surveys should be conducted among selected Caribbean countries to assess relevance and usefulness of training courses both within and outside the region;

(g) The impact of personnel administration policies on the migration of professionals (the "brain-drain") should be thoroughly investigated;

(h) A study should be done on the influence of international funding agencies in shaping the agendas of governments in developing the human resources required for self-reliant development.

While many significant issues were raised and an enriching exchange of experiences had taken place, the limited time did not allow for an exhaustive discussion of issues. Since the Forum was intended to be an initial encounter in a series of dialogues, it will be necessary that a further meeting be convened to discuss concrete case-studies providing empirical evidence on topics raised at this Forum. It was agreed that the proposed follow-up meeting could be held in Cuba if the relevant authorities were in agreement, as this will afford an opportunity for discussion on the higher education in Cuba with particular reference to the highly-acclaimed success that has been attained in training and research related to agriculture, agro-industry and engineering.

The country case-studies to be undertaken should be completed in time to be circulated among participants prior to the fourth quarter of 1991 in which the proposed meeting should be held.



Appendix 1

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