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THE BRAIN DRAIN IN THE CONTEXT OF SOCIAL CHANGE IN DEMOCRATIC YEMEN AND PROBLEMS IN HIGH-LEVEL MANPOWER TRAINING AT ADEN UNIVERSITY

Prepared By
Mohamed Ja'afar Zein

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### I. Emigration from southern Yemen under British colonial rule and the flight of the country's manpower.

Human migration from one country or region to another and from a civilization in decline to one that is prospering is not a new phenomenon in history. Mankind has witnessed many such migrations at different periods of its long history and for a variety of reasons: for example, the scarcity of natural resources in one country and their availability in another and cases of economic stagnation and decline brought about by the policies of ruling elites, natural catastrophes or wars.

After the collapse of the Merab Dam and during the period of the Arab and Islamic conquests, both northern and southern Yemen witnessed numerous migrations to other Islamic Arab countries and to neighbouring African countries. These migrations, of course, were precipitated by a variety of causes. It is impossible, however, to determine scientifically the exact nature of these causes and the past and present consequences of these migrations on the evolution of Yemeni society without the benefit of detailed scholarly studies of this phenomenon, which marks Yemen off from other Arab countries. 1/

In the period between the end of World War I and the early fifties, manpower migration from southern Yemen (Aden city excluded) involved mainly the outflow of unskilled workers from the Protectorates to neighbouring areas and to a number of advanced capitalist countries, especially Great Britain and the U.S.A. 2/ This migration was primarily due to the total neglect of the educational system on the part of the country's colonial rulers and native sultans, who permitted the productive forces of the land to lie in stagnation. The rulers applied unchanged the traditional methods and tools of production in agriculture, fishing and grazing and left the population of the Protectorates (around 85 per cent of the population ) without the most basic services, such as drinking water, electricity and health care. 3/

The city of Aden was given a special status in British colonial policy, that set it apart from the other regions of the south. The strategic location of Aden and its increased navigational and military importance following the construction of the Suez Canal led the British to develop it into an international free port and a prosperous commercial centre. Between the end of World War I and the early fifties, commercial activity, especially the transit trade, flourished under the impetus of foreign commercial capital. Shipping and other services also burgeoned, giving rise to the establishment of numerous commercial institutions and facilities associated with the central commercial and strategic position of Aden in the British Empire.

8. The growth of Aden's trade and services sectors in the period between the end of World War I and the early fifties and the opening of the doors of immigration by the British colonial authorities to British and Commonwealth subjects encouraged great members of unskilled workers from other parts of Yemen and from India and other countries of the world to settle in Aden and work in its numerous commercial and service institutions. The authorities also brought in a limited number of middle- and high-level cadres, particularly from Britain and India, to fill top positions in the administrative and service facilities of the British administration and foreign commercial and service institutions and to practise occupations that require technical and university training, such as electrical and mechanical engineering, law and medicine.

The development and expansion of the government and the commercial and service sectors in Aden during that period required the construction of a limited number of elementary and intermediate schools as well as a number of commercial schools for teaching English and for training in clerical and accounting skills to fill the growing need for staff. Significantly

enough, the British colonial administration restricted
enrollment in government schools to the children of British subjects
and Commonwealth immigrants, barring entry to children of Yemeni origin (i.e.,
migrants to Aden from the Protectorates and northern Yemen) on the pretext that
they were not British. This led the population of Yemeni origin in
Aden to establish a number of community schools of their own.

Beginning with the early nineteen-fifties, and especially after the success of the 1952 Revolution in Egypt, which restricted British imperialist domination over that Arab country, Aden witnessed a period of marked social and economic development. The withdrawal of Britain from its base on the Suez Canal led to a change of British imperialist policy in the Arab region, which, naturally, had its impact on Aden and the Protectorates. Aden was transformed into a gigantic British military base and the British began to turn their attention to the development of the Protectorates and to search for a viable form of union or federation among them. In the decade preceding the success of the Revolution of 26 September 1962 in northern Yemen and the commencement of the Revolution of 14 October 1963 in the south, Aden witnessed the construction of a British oil refinery in Aden colony as well as a number of light industries, such as the production of carbonated beverages, whose purpose was the production of consumer goods to meet the needs of the greatly expanded British military base. This expansion was also accompanied by a considerable growth in trade and construction activity. The colonial administration in Aden began to pay greater attention to the development of agriculture in nearby regions. It introduced the long-fibre cotton crop into the agricultural lands overlooking the valleys near Aden. It encouraged the introduction of modern farm machinery into agriculture and the expansion of truck farming to meet the growing needs of military base personnel and the growing population of Aden.

The considerable economic development that took place in Aden and the Protectorates before the outbreak of revolution in northern and southern Yemen led the colonial administration to open a number of public schools in Aden and in the chief towns of the Protectorates. It also established a technical vocational institute at Al-Mu'allah and provided for the training of teachers for these schools in the country and abroad (e.g., by arranging for training courses in the country and by sending teachers to attend such courses in the Sudan, Great Britain, etc.).

The curricula taught at these schools were based mainly on programmes applied in the countries of the Commonwealth and, to a lesser extent, Sudan. Thus a number of Sudanese teachers were brought in to teach at these schools, especially the ones in the Protectorate towns. The colonial administration at Aden and several sultans of the Protectorates sent a limited number of local people to Great Britain and some Arab countries (Egypt, the Sudan, Lebanon...) to pursue their secondary studies and to attend university. In 1955 the British administration opened an agricultural research centre at Al-Kud. This centre concentrated on the study of the suitability of the soil and the climate of the region for the introduction and expansion of long-fibre cotton and certain other crops. To this purpose, the administration brought in a number of highly qualified British agricultural experts with experience in the introduction of these crops in other parts of the British Empire.

Despite the economic development and the relative expansion in public education that took place in that period in southern Yemen, no development whatsoever occurred in the field of higher education under British colonial rule. On the other hand, throughout the fifties and during the period before national independence, the Yemeni National Movement, with the help of the liberated Arab countries (Egypt in particular) and the Socialist countries,

succeeded in sending many local citizens to pursue their secondary education and to attend university in these countries. Thus the Movement succeeded in graduating a number of university-qualified nationals in the years preceding independence. These cadres participated to varying degrees and in a general way in the Yemeni National Movement both during their university days and after they graduated and returned home to work.

## II. The brain drain and manpower training in Democtractic Yemen following independence.

The brain drain from the Arab countries, as from the developing countries in general, during the period following World War II was one manifestation of the exploitation of the developing countries by the more advanced imperialist powers. This exploitation was the outcome of the relative position of these countries, which include the Arab countries, in the world imperialist system and their economic dependency upon the imperialist powers. After World War II, this exploitation took on a variety of forms such as the exhaustion of the natural resources of the developing countries, including the Arab countries, and the exploitation of their manpower. During the past two decades the exploitation of the high-level manpower of the developing countries through the brain drain to the advanced capitalist countries increased considerably. The Arab countries, of course, especially those countries, such as Egypt, where higher education was well developed in the inter-war period and after, were no exceptions to this general rule, despite the recent changes that have deflected the brain drain to the oil countries within the Arab region.

As indicated above, southern Yemen, among other Arab countries, saw no development at all in higher education throughout the period of British rule. The brain drain phenomenon (the outflow of high-level manpower) is, therefore,

a recent phenomenon which, as will be seen below, is closely linked to the political and economic circumstances surrounding the struggle in which southern Yemen, led by the National Front, eventually seized political independence from Britain on 30 November 1967.

During the period preceding independence, especially when the British administration realized that the victory of the armed struggle in southern Yemen and the establishment of an independent sovereign State in the region were inevitable, the British administration deliberately acted to raise the emoluments of workers and employees in the administrative services of what was then known as the South Arabia Federation and in the institutions and companies belonging to foreign capital. It likewise disbursed fringe benefits, especially to middle-and high-level cadres and armed forces and public security personnel. The increases that were granted had no parallel in the history of the region. The purpose was to create a huge deficit in the budget of the newly created State, thereby increasing its dependence on the financial support it obtained annually from Britain and consequently, its obligation to remain within the orbit of British imperialist policy.

The first post-indepdence Government proceeded at once to take the necessary first steps to organize the new State and to alleviate the economic problems that accompanied the complete removal of the British base at Aden and the closing of the Suez Canal during the War of 5 June 1967. It also went about reducing on government expenditures in order to reduce the huge deficit in the general state budget. That deficit was due to the low government revenue which was the natural result of British colonial policy and the British neglect of the economic and natural resources of the Protectorates.

One of these economy measures was the scaled reduction of the embluments of government sector employees of all functional and educational grades and qualifications. The Government also imposed a tax, which it called the "special tax", upon non-governmental sector employees of all grades and qualifications, especially the employees of commercial, industrial and service establishments controlled by foreign capital (e.g., the British refinery at Aden city). The purpose of that tax was to increase government revenue and to create some kind of balance between the emoluments of the government and the private sectors, thereby discouraging government sector employees from defecting to the private sector. In addition, the Government amended the income tax law and introduced other tax laws aimed at increasing state revenue through direct and indirect taxation.

The emigration and outflow of foreign cadres and some highly qualified local cadres who worked in the administration and in other departments of what was then called the South Arabia Federation was a natural consequence of the changes in the ideological structure of government policy which accompanied the transfer of political authority in southern Yemon from the hands of the British, the sultans social groups in their orbit to the hands of the nationalists organized under the National Front.

Furthermore, the economic stagnation which overcame Aden as a result of the withdrawal of British forces and the closing of the Suez Canal; the consequent unemployment that hit former workers at the British military base and many employees of the commercial, industrial and service establishments, and the policy of lower wages and higher direct and indirect taxation all conspired, quite naturally, to precipitate the emigration of many professionally and technically qualified cadres and university graduates in the period immediately following independence. This brain drain

flowed primarily towards Yemen's oil-producing Arab neighbours, which, ever since the oil boom, had become and still remain a pole of attraction for qualified and unqualified manpower from Democratic Yemen, Yemen in general and the other Arab countries.

The political and ideological structures of southern Yemen remained in flux throughout the immediate post-independence period until the political-ideological conflict within the organization of the National Front was settled to the advantage of the leftist-progressive wing on 22 June 1969. The social transformation that took place in Democratic Yemen following the success of the 22 June corrective action can be summed up fundamentally as the intensive utilization of political authority as a mechanism for bringing about changes in property relations. This led to state ownership and control of the essential sectors of the national economy and the subjection of socio-economic development to the orientation and guidance of the political authority embodied in the political organization of the National Front and the governmental apparatus of the State. The socialist orientation was adopted in effecting these changes and transformations.

As a result of these transformations, which found expression in political programmes (especially the National Front political organization's programme for the national democratic revolutionary stage) and in decisions and practices of the country's political organization and Government, the State began to assume responsibility for socio-economic development by establishing development plans (the 1970/71 - 1972/73 Three-Year Plan and the 1973/74 - 1977/78 First Five-Year Plan), by implementing them with the meagre financial resources of the State, supplemented primarily by grants and loans from sister Arab States, friendly Socialist States and international organizations, and by running and administering the projects provided for in these plans following their completion.

The establishment and implementation of socio-economic development plans means in essence the development of both the material and the human elements of the productive forces of a society. This development calls for the transformation of the structures of society in the direction of social progress based on the development of the capabilities, know-how and qualifications of the society's manpower.

The Government of Democratic Yemen proposed to develop the productive forces of Yemeni society in the face of the extreme backwardness of those forces and the difficult economic and financial circumstances inherited from British colonial policy in the region. These circumstances were reflected in the persistence of a deficit in the state budget. In fact, that deficit tended to grow bigger every day as the new State extended the structures that would permit it to shoulder the responsibility for socio-economic development in all regions of the country and in rural areas in particular. The task of developing the country's productive forces required that the Government urgently expand manpower training efforts quantitatively and qualitatively. The difficult economic and financial circumstances in which these efforts were launched led the authorities in August 1972 to make another cut in the emoluments of all government and public sector employees, in the hope of limiting growing public expenditures and reducing the deficit in the state budget. This cut in pay had its expected impact on the living conditions of workers and led more professional, technical and university graduates to leave the country for work and settlement in neighbouring oil countries, despite all government efforts to induce them to stay. These efforts included granting special increments to university graduates in all scientific and educational fields and restricting foreign travel for technical and university level cadres. In addition to these measures, government policy aimed at accelerating the expansion of manpower training at all levels. This policy, of course, had its impact on general educational policy, which likewise aimed at the rapid and wide expansion of public education in the country. This expansion resulted in the establishment of a large number of elementary, preparatory and secondary schools, particularly in the rural districts, as part of the implementation of the Three-Year and the First Five-Year plans. The expansion generated, in turn, an acute need for teachers. The Government set about filling this need with measures which can be summarized as follows:

- 1. Expansion of teacher training, especially for elementary schools, by increasing enrollment and by establishment new normal schools.
- 2. The drafting of secondary school graduates to teach elementary school, particularly in rural areas, for one or two years as part of a national service system.
- 3. Recruitment of teachers from abroad from the Arab countries and especially from Egypt through technical assistance programmes and direct hiring. 50l teachers were hired in the year 1977/1978.4/
- 4. Establishment of the College of Education in 1970 for the training of preparatory and secondary school teachers.

Parallel to those measures were the expansion of the practice of sending students to universities abroad, especially to Arab and Socialist countries and the expansion of vocational and technical education. A fisheries institute, an institute for training medical auxiliaries, the Nasser Agricultural Institute (later expanded into the Agricultural Sciences College) were established.

Enrollment in vocational and technical education was expanded in the framework of the Technical Institute established before independence. Finally, the Government passed an illiteracy eradication and adult education law and expanded the construction of kindergartens.

In its implementation of the First Five-Year Plan, the Government kept up its policy of rapidly expanding public schools, intermediate-level vocational and technical education and higher education. It established a number of vocational schools attached to government ministries such as Labour, Agriculture, Education and Public Works. 5/ A legal institute attached to the Justice Ministry and a fine arts institute attached to the Ministry of Culture were established. At the same time, an economics and administration college was created and the Technical Institute at Ma'alla for the training of middle level cadres in electrical, mechanical and construction engineering was expanded. Finally, the Government established a medical college which was opened in 1975.

Parallel to this wide expansion in public education, changes were made in the educational structure and in the curricula in force in the country. A combined 8-year cycle was instated to cover the period of compulsory attendance for both boys and girls of school age and an agricultural and industrial polytechnical subject was introduced into the curriculum of that cycle. The curriculum was also modified to make it more relevant to the natural environment and the political orientations of Democratic Yemen. Most of the graduates from this cycle are expected to go on to vocational and technical institutes while a minority will go on to the secondary school cycle, which itself has been expanded to 4 years. These changes in the educational system resulted in the creation of the Educational Research Centre in June 1975 with the task of preparing new educational programmes for public schools. The responsibilities of the Centre may be expanded to include the preparation of educational programmes

for the vocational schools and institutes of the country. 5/ The centre is also responsible for carrying out educational research aimed at the continuing development of the educational system and the raising of its educational and teaching standards. As part of its growing concern for Yemen's national heritage and ancient civilization, the Government opened a Yemeni centre for cultural research. Its work is presently focussed on the collection of documents and manuscripts on Yemeni history and the organization of digs on the sites where Yemeni civilization once flourished. This work should prepare the way for scholarly studies on Yemeni history and civilization.

The changes that followed the corrective action of 22 June, which brought about a continuing and rapid quantitative and qualitative expansion in manpower training culminated in the creation of Aden University in September 1975. This University was formed by combining the 4 colleges listed above - i.e., the College of Education (1970), Nasser Agricultural Science College (1972), College of Economics (1973) and the College of Medicine (1975).

#### III. The establishment of Aden University and problems in the education of high-level manpower in Democratic Yemen.

According to law 22 of 1975, which established Aden University, the purpose of the University is to educate high-level-manpower and to conduct scientific research required by the economic and social plans of the country. With the academic year 1978/1979, the University was expanded by the construction of two more colleges - the College of Law and the College of Technology. The University was now composed of 6 colleges. The Second Five-year Socio-economic Development Plan (1979-1983) provides for the establishment of a Marine Sciences Institute to be attached to the University upon its completion at the end of 1980.

Around 2200 students of both sexes are presently attending Aden University. They are graduates of the country's secondary schools. About half those students are enrolled in the College of Education - a witness to the country's pressing need for teachers. According to the 1976/1977 census, the teaching staff was 178. Most of these (137) were lecturers and instructors, the rest professors and assistant professors. Because the colleges of the University were established and expanded in some haste, the physical plant of the University still consists of buildings designed for secondary school teaching or governmental uses unrelated to academic, university life; These buildings, however, were repaired and extended on several occasions in the attempt to adapt them to the requirements of university study. Moreover, the University's facilities especially its laboratory equipment and library sub-standard despite the considerable improvements that have been lately introduced. The libraries of the different colleges as well as the central library still lack numerous scholarly references, university texts, periodicals and scientific and scholarly journals.

The human element, or the formation of a highly qualified academic staff and the attraction of the more outstanding secondary graduates, along with the provision of a certain measure of teaching and library facilities, is the crucial factor in determining the success of the University's twin objectives of educating high-level cadres and conducting research in aid of Democratic Yemen's social and economic development. An examination of the present situation of the faculty of Aden University will reveal an imbalance in the numbers of professors and assistant professors in comparison with the numbers of lecturers and instructors in all colleges. This imbalance, however, differs from one college to the next. Some colleges, especially Nasser Agricultural Sciences College, have an adequate number of professors and assistant professors but not enough Yemeni instructors and lecturers. Other colleges lack professors and assistant professors in specific fields of specialization. These shortages are being filled by continually bringing in professors, assistant professors

and visiting professors from sister Arab States, friendly Socialist countries and India. Aden University shares this problem with the universities of other Arab States whose expansion in recent years has been rapid and ambitious. The difference, however, especially with regard to the universities of oil-producing countries, is that Aden University lacks the necessary financial and material resources to attract leading Arab and foreign adademics to work there for long periods of time. Consequently, Aden University is passing through a period of faculty instability. Its study programmes and curricula—change—from time to time as different members of the Arab and foreign faculty come and go.

Non-Yemenis constitute an ever-growing proportion of the faculty—as a result of the expansion of the colleges of the university and the practice of sending the University's Yemeni instructors and lecturers abroad for higher education.

The condition and structure of the faculty of Aden University, the disproportionate number of foreigners on the faculty and the lack of faculty stability naturally affect the state of academic research therein. The University has made great efforts to develop research; it has attempted to provide to some extent the necessary equipment, facilities, books, references and professional periodicals needed for research (as in some social science fields) and it has introduced research training time as an integral element of course curricula yet the University still finds difficulty in motivating foreign members of the faculty to carry out research. This unresponsiveness, of course, has its reasons. Foreign faculty members may not be acquainted with conditions and problems in Democratic Yemen and they may be staying in the country for only a short period of time. Consequently, the efforts of the University at present are concentrated basically on its teaching functions.

Conditions at the three research centres attached, respectively, to the ministries of Agriculture, Education and Culture are not essentially different from those prevailing at Aden University. The Agricultural Research Centre at the Agricultural College, for example, is staffed basically by foreign experts assisted by local and Arab cadres drawn from graduates of agricultural colleges in Arab and Socialist countries. The activities of this Centre focus on the problem of determining whether high-yield seeds developed originally in more advanced countries are suited to the soil and climate of D mocratic Yemen and the provision of agricultural counseling and services whenever these seeds are used in a big way in the country, as well as on the provision of counseling in the fight against agricultural diseases in general and the pests and diseases that affect the cultivation of cotton in particular.

The activities of the Educational Research Centre are presently focussed on the preparation and printing of new teaching curricula, much of which, especially the curricula for the expanded secondary cycle, is still in the preparation stage. Engaged in this effort are the Centre's full-time staff, Yemeni instructors from the Education College and a number of foreign faculty members from the University.

The activity of the Yemeni Centre for Cultural Research, as noted above, is focussed essentially on the collection of Yemeni documents and the organization of archeological digs on promising sites. The Centre occasionally employs the services of foreign experts to assist it in these tasks.

In the light of the above, it can be stated that the country's high-level manpower training effort whose aim is to develop a national high-level manpower capability in Democratic Yemen is still in its first stages. It is confronted by many of the same problems that face manpower training in general and it has been and still is influenced by the economic and political circumstances of the

country as outlined above. Obviously, the scientific comprehension of these problems constitutes the first step in overcoming them. The Government has included in the Second Five-Year Plan measures that may help resolve some of the problems confronting Aden University. Around  $\frac{1}{5}$  of the allocations of the educational sector in this plan are consecrated to the expansion of the university's buildings, installations and equipment. Most of the higher education scholarships granted by sister and friendly countries and by international organizations — an average of one hundred scholarships a year in all — will go to providing graduate (mainly Ph.D.) education abroad for Yemeni members of the faculty of the University. Such an education is undoubtedly a basic requisite for the development of scientific research at Aden University and for lifting the academic standards of its students.

In addition to these difficulties there are problems that arise from the country's socio-economic development planning process in general and its manpower training (and higher-level manpower training) planning process in particular. The academic structure of the University - in terms of the number and kinds of fields and sub-fields offered at its different colleges and affiliated institutions, the decision as to which fields and sub-fields should be expanded and the size of their respective enrollments - should be subjected to a rigorous and thorough study that takes into account the small size of Democratic Yemen and its long-term and short-term development trends. (The population of Democratic Yemen in 1978 was 1,808,000 people; total manpower resources were 860,000; at present 411,000 people are employed in the national economy.)

The organization of the University should also take into account the research functions of the University and the organic multi-disciplinary nature of the different branches of learning and knowledge. This requires the introduction of fields of study into the academic curriculum of the University

that are not directly related to the education of its students. It is difficult to make definite statements in this regard in the absence of any rigorous study on the academic structure of the University. Given the resource base and experience of Democratic Yemen, however, it can be said that the training of high-level manpower and the development of scientific research at Aden University and at the ministerial research centres will require a more concentrated and co-ordinated effort on the part of the Government as it seeks to improve higher education and scientific research for development. Strong and orderly relationships should be created linking the University with the central organs of the State and with the different ministries of the government - especially those ministries that are related to the training and research functions of the University.

High-level manpower training for Democratic Yemen takes place not only at Aden University but also at institutions abroad. Many fields of specialization require that a proportion of secondary school and university graduates (including graduates of Aden University) be sent to study abroad principally in the Arab and Socialist countries. An average of 400 graduates leave for university study every year and 1 000 for other types of higher education.

Every year a number of university graduates (223 students are expected to graduate in 1978) Treturn to Democratic Yemen and, together with the graduates of Yemen University, fill posts in the different governmental and public sector institutions. These graduates are increasing in number annually and they now constitute an ever-prowing proportion of total manpower. This has led the Government to create recently a central Givil Service Department attached to the Council of Ministers. Its major task is to preserve these professional employees and to deploy them in the different sectors in accordance with their fields of specialization and the country's development plan priorities. It is resp ible, in co-ordination with the different ministries for finding ways of making the most efficient use of their qualifications. The table below and shows the number of students graduating from Aden University during the period of the Second Five-Year Plan (around 2450 graduates in all):

Graduates of Aden University (Higher Education)

-18-

	gilgan vista aike nida erilgan kalan di kalan d	Modified for 1978		Draft Plan for 1979 - 1983				
		1978		1979	1980	1981	1982	1983
Total	Colleges	284	•	266	351	352	532	664
1.	Economies &	Administration 105		96	106	110	123	185
	Education	149		131	183	180	185	346
3.	Agriculture	30		39	62	62	62	62
4.	Medicine			-	-	••	<b>4</b> 8	48
5.	Technology	-		-	-	-	61	61
6.	Law	-		-	sppi		53	62

Assuming that this graduation pattern persists over a long period of time (a quarter-century perhaps); that the Government's manpower training policy persists unchanged; that the brain drain is checked through securing higher living standards for graduates (as in the recent modifications in wages and salaries); and that the efficacy of this manpower in the scientific management and orientation of the country's socio-economic development is increased - if all this can be assumed, the fundamental social transformation - the qualitative changes in the structure of the productive forces of Yemeni Society as proclaimed and worked out by the newly founded Yemeni Socialist Party - will come to fruition, advancing social progress and the construction of a New Yemeni Society.

#### MOTES

- 1/ For the history and causes of emigration from Yemen see, inter alia. book by Mohamed Ba Matraf on the subject.
- 2/ This was also the case in northern Yemen under the Imams, where the rulers neglect of developing an educational system was total.
- 3/ This is not to say that the rise in wages and salaries was due solely to British colonial policy; from its inception in the fifties, the labour movement in Yemen fought for better pay for its workers through union organization and strikes.
- 4/ Cf. Statistical Yearbook of Education, 1978, published by the Planning and Statistics Department of the Ministry of Education of Democratic Yemen, particularly Table 12.
- 5/ Cf. "Study on Planning and Administrative Issues and the Scientific Principles of Manpower Planning and HLM Training" (in Arabic), paper presented to the Seminar on Manpower and Cadres held in 1978 under the aegis of the Economics Department of the secretariat of the Central Committee of the United Political Organization National Front (presently the Yemeni Socialist Party), p. 59.
- 6/ Cf. Five-year Socio-Economic Development Plan for 1979-1983. Vol. II, detailed tables (Aden, January 1979). Tables 68 and 69.
  - 7/ Cf. Statistical Yearbook of Education, 1978. Table 15.
- 8/ Cf. Five-year Socio-Economic Development Plan for 1979-1983, Vol. II, detailed tables. Table 79. The paper entitled, "Draft Country Paper on the Application of Science and Technology to Development in Democratic Yemen", submitted to the ECWA Second Regional Preparatory Meeting for UNCSTD, held in Amman, Jordan between 12-14 September 1978 (E/ECWA/NR/CONF.2/Cp.3). 26 June 1978. Original: Arabic.

