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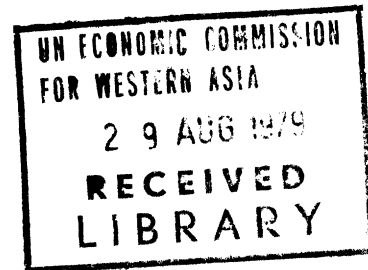
UNITED NATIONS
ECONOMIC AND SOCIAL COUNCIL

Distr.
LIMITED

E/ECWA/NR/CONF.2/CP.14
4 April 1979

Original: ENGLISH

ECONOMIC COMMISSION FOR WESTERN ASIA



National Paper presented by
THE PALESTINE LIBERATION ORGANIZATION
to
the United Nations Conference on
Science and Technology for Development
Vienna, August 1979

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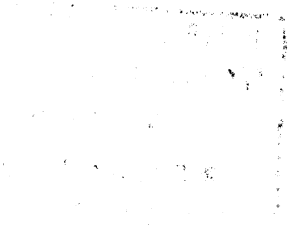
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1.0 INTRODUCTION

The Palestine Liberation Organization (PLO) is the organized leadership of the Palestinian people struggling for their inalienable right to self determination. Under the UN Charter and in pursuance of numerous UN resolutions by both the Security Council and the General Assembly these Palestinian rights have been recognized. The Palestinians do not exercise their sovereign rights over any area of their homeland, thus the major concern of the Palestine Liberation Organization is that of national liberation rather than of development. Yet a movement of national liberation must attend to the basic human needs of its people. For this reason, the Palestine Liberation Organization as well as a number of other independent or affiliated institutions, private and "public", inside and outside the political boundaries of Palestine, have been concerned with the basic social, economic and technological problems facing the Palestinian people. Science and technology play a vital and increasing role in the perseverance and sustenance of the struggle for national liberation.

UNCSTD stresses the useful aspect of science and technology. It is, however, important to remember that technology has both a good and an evil side. The dispossession of the Palestinian people of their rights has of course been achieved, and continues to be sustained, by the successful linking of science and technology to the Israeli war machine. The Palestine problem emphasizes the need for the establishment of effective international instruments for the protection of weak nations from rapacity and aggression. Owing to the absence of such UN instruments, a heavy moral and ethical obligation devolves on the Member States of the UN to extend adequate forms of assistance to movements of national liberation in order that they resist oppression effectively and hasten the dawn of independence. The extent to which Member States of the UN assist the Palestinians to develop their scientific and technological capabilities will help to reduce the heavy toll of human suffering and contribute to the triumph of justice and human rights.

The Palestine Liberation Organization endeavours to co-operate and co-ordinate with other nations and movements of national liberation to put science and technology to the service of man it yearns for a world of peace and goodwill where no nation is so weak that it can be oppressed.

Understandably, the military and political conditions of the Palestinian people have not made the emergence of central economic and science planning possible. Hence, science policy-making bodies do not exist; nor are there national institutions dedicated to the planning, management and execution of scientific activity. To the extent that sovereign states attempt to exercise control over their activities in science and technology and endeavour to link these activities to national, social and economic development plans, UNCSTD is primarily concerned with the policy and the institutional aspects of science and technology. However, the Palestine Liberation Organization national paper is unique in the sense that it focusses attention on objectives and the consequences obtained with extremely rudimentary instruments. We hope that the Palestine Liberation Organization experience contributes to a better understanding of the grass-root aspects of the processes of linking science and technology to development. It is likely that a judicious combination of the Palestinian practices of decentralized and grass-root efforts with sound central planning may contribute to the elimination of some of the obstacles facing IDC's ^{1/} in the acquisition of science and technology.

2.0 REFLECTIONS OF THE PRESENT SITUATION

The dispersal of the Palestinian people has rendered routine demographic studies very difficult: no official population figures exist. Palestinian population today is estimated to total slightly more than 4 million people. 1.8 million are in Palestine, 1.2 million in Jordan, and 1 million are presently located in the Gulf countries, Lebanon and Syria.

Since 1948 the Palestinians have benefited from the extensive elementary school educational system provided by UNRWA, and have had access to the public secondary schools and national universities of the Arab world. A number of friendly foreign powers have also provided scholarships at their universities. The quest for education has been on a tremendous scale. Despite enormous uncertainties arising from the impoverished state of the individual Palestinian, a significant labour force has evolved over the years. Preliminary estimates indicate that there are roughly 100,000 Palestinian university graduates (HLM), ^{2/} and the number of skilled technicians exceeds that of university graduates. Thus the share of university graduates of the Palestinian labour force is close

^{1/} Developing Countries
^{2/} High Level Manpower

to 8-10 per cent, a high figure for an LDC. In the absence of employment opportunities within the Palestinian community and in view of the personal basis of the quest for higher education, a rather massive migration of this skilled manpower to most Arab States has developed; Palestinians there now occupy important positions in all spheres of public and private life in the service of the development of sister Arab countries. Probably 50 per cent of the Palestinian HLM is employed in education. The rest are public servants, medical doctors and engineers.

Palestinians have also established, alone and jointly in partnership with citizens of other Arab states, a number of private consulting and contracting engineering firms through which they have contributed extensively to the development of technological self-reliance in the region. These firms have developed considerable local expertise in the designing, planning and executing of large scale civil engineering projects: transport, construction, industrial sites, pipelines. Their expertise in the electrical and industrial engineering fields has also grown, but to a more limited extent. The experience of these firms in acquiring and transferring technology to the region deserves the attention of UNCSTD. A negative aspect of the integration of Palestinian HLM and skilled labour force in the development of the Arab States is the consequent deprivation of the Palestinian communities of these energies. Needless to say, Palestinian manpower employed in the economies of the Arab States generate the financial resources to sustain their families, many of whom remain under occupation or in refugee camps.

The higher education available to the Palestinian has naturally oriented them towards the technological and economic problems of either sister Arab States or of foreign countries. Furthermore, the plight of the Palestinian economy combined with the labour shortages experienced by a number of Arab economies have resulted in a powerful pull on Palestinian manpower. The educational systems attended by Palestinians did not prepare them for a fruitful and effective career within the Palestinian community. This situation arose from a combination of factors beyond the control of the parties concerned as well as from a lack of awareness of the educational implications of the present conditions of the Palestinians. During the past ten years a number of developments, that may usher new relationships of the educational system to the Palestinians, have taken place. One line of development has been the

extension of higher education in Gaza and the West Bank. Seven Palestinian institutions for vocational and teacher training now exist. All were established prior to the 1967 occupation. The total enrollment is approximately 2,000 students with a teaching force of some 175. In addition, there are three universities on the West Bank: Bethlehem University (founded in 1973), Bir Zeit University (founded in 1953, and has been developing ever since) and the Najah National University (founded in 1920 and developing ever since). Although these three institutions enrolled only 2,600 students in 1977/78, their growth rate since the mid-1970's has been fairly high. The total staff is about 165. Bir Zeit University enrolls 36 per cent of all the students and has 62 per cent of the total faculty. There are a few other institutions that provide training for practical nurses, registered nurses and technical training.

The total number of students enrolled in these institutions of higher education is presently around 5,000. The three universities have a capacity of 2,600 students, yet 11,000 students become eligible for higher education annually in the occupied territories. Of these 11,000, about 2,100 are admitted to universities outside the occupied territories. Although this is a small fraction of the total number of 70,000 to 100,000 ^{1/} Palestinian university students, yet the universities and educational institutions on the West Bank and in Gaza are destined to play a pioneering role in integrating higher education with the social, economic and technological needs of the Palestinian people.

But in order that these Palestinian institutions succeed in developing their educational programmes to link science and technology to social and

^{1/} It is important to emphasize here that the figure of 70,000 - 100,000 is an estimate based on poor data. The statistical foundation of Palestinian university students is in a very imperfect state. This figure is based on a collation of the available figures from UNESCO, official educational statistics of a few Arab States, assumptions concerning the composition of the Jordanian population, and so on. One finds that in 1971 there were some 46,000 Palestinian university students increasing to more than 100,000 in 1978. The number of university graduates and students in the Arab States doubles every 5.3 years. There are today around 1 million Arab university students.

economic development they need substantial research support.^{1/} A recent new line of development may very well contribute to this process: the UNESCO/Palestine Liberation Organization AFESD feasibility study on establishing a Palestinian Open University (POU). This project was called for by the Palestine Liberation Organization and is presently being executed by UNESCO under a grant from the Arab Fund for Economic and Social Development (AFESD). A fundamental concern of the POU will be to focus the curriculum and programme on Palestinian problems in order to prepare youth for work within the Palestinian community. The skills, methodologies and values required for such occupations are very sophisticated and radically different from the requirements of employment in large bureaucracies and multinational companies. Employment in the occupied territories is in town municipalities (the largest town has a population of 70,000), district offices, water and electricity boards, small industries, small scale agriculture, education, medical services, and so on. The successful performance of these jobs calls for considerable dedication, a wide range of skills and special capacity in problem solving: they all present unique and numerous opportunities for linking science and technology to social and economic development. The POU will also serve a number of other social and cultural objectives by exposing Palestinian youth to a common education and by bringing higher education within the reach of all Palestinians.

^{1/} Needless to say these institutions are subjected to the direct supervision of the Israeli military establishment. A few examples of the difficulties erected by the occupation forces will be given to emphasize the special type of obstacles faced. The faculty and students are subject to systematic arbitrary deportation and arrests. The deportation of the President of the University of Bir Zeit is only one example of this type of harassment.

See Ann Lesch, "Israeli Deportation of Palestinians from the West Bank and the Gaza Strip, 1976-1978" in *Journal Palestine Studies*, VIII, pp. 101-131 (1979).

The Education Officer in the Israeli Forces of Occupation on the West Bank has to approve the budget, curriculum, number of staff and students. He has the authority to prevent curricular development. Since some of the faculty has to be attracted from outside the West Bank, the military authorities, to harass the institution, exercise arbitrary delays in responding to request for residence permits - often denying these on the first day of classes in order to increase the difficulties of the institutions.

The development of Palestinian higher education is being pursued with all available resources. Of course these efforts could be speeded up and strengthened by additional support to the institutions in both occupied Palestine and the Palestine Liberation Organization.

The Maqassid Hospital in Jerusalem and the Palestine Red Crescent are two illustrations of Palestinian initiative in the medical field within and outside the occupied territories. The Maqassid Hospital was established by the Islamic Benevolent Society on the West Bank. It is a 120-bed hospital which is well staffed and equipped. It also operates training programmes for medical personnel. The Palestine Red Crescent operates a number of small hospitals, extensive ambulant services for Palestinian refugee camps that are often the target of vicious Israeli indiscriminate bombardments, as well as rehabilitation medical facilities and services to injured Palestinians.

Another Palestinian initiative is the social and economic experiment known as Samed. This institution is dedicated to provide productive employment of Palestinian youths who have been subjected to great hardships (e.g. the people of Tal al-Zaatar, the children of Palestinian martyrs, etc.). Samed is of recent origin but has rapidly grown in size and diversity. Its sales in 1977 attained more than \$2 million and it operates factories in furniture-making, textiles, ready-made clothing, blankets, leather and mechanical workshops.

The above examples provide an illustration of new trends and exhibits Palestinian experimentation with the available means to find solutions to social and economic problems. It is clear from the above, however, that there is still a long way to go and the Palestine Liberation Organization is deeply interested in the possibilities UNCSTD will open up to further the scientific and technological development of the Palestinians. 1/

1/ Until a few years ago the Palestinian problem was treated as a "refugee problem" and UNRWA provided basic relief services. However, during the past few years the UN system began to recognize the problem in all its proper dimensions. Thus, the Palestine Liberation Organization occupies various positions in different UN agencies, and the Palestinians are beginning to receive modest UN services. This trend is on the increase, and it is hoped that UNCSTD will usher in a whole range of needed technical assistance projects.

3.0 UNCSTD AND PALESTINIAN ISSUES

Despite the special circumstances surrounding the relationship between the Palestine Liberation Organization, science, technology and development there exists a number of areas where the Palestine Liberation Organization and UNCSTD hold identical views. In the introduction we have provided evidence of the commitment of the Palestine Liberation Organization and the Palestinian people to science and technology as an instrument of development. Meeting basic human needs holds the same high priority in the Palestine Liberation Organization as in UNCSTD.

In the following sections the paper shall address each item and sub-item of the UNCSTD outline of the national paper to stress areas of common interest.

3.1 Science and technology for development

At the moment, the capacity of Palestinian manpower to engage in scientific and technological activities exceeds by far the available means and resources. These means and resources are in part restricted by Israeli occupation. Unless and until this basic obstacle is removed it will be impossible to make full use of available Palestinian manpower. A second difficulty is the rudimentary nature of the existing institutions and their limited capacity for undertaking scientific, technological and economic activity. For these reasons the fundamental strategy of the Palestine Liberation Organization is to support every measure that contributes to the strengthening of existing institutions as well as to establish new ones. The basic policy governing this strategy is to give top priority to meet the social and economic needs of the Palestinians in the Gaza Strip and the West Bank and to support grass-root and institutional development in the village and in the town.

One of the major difficulties that face the Palestine Liberation Organization in planning and executing policies in the field of science and technology is precisely its lack of command of the economies within which Palestinians work either because they are under occupation in Palestine or guests in sovereign Arab States. Thus the dependence is on voluntary personal energies, and on small scale measures.

3.1.1 The choice and transfer of technology for development

Up to the present, Palestinians did not have the opportunity to exercise planning and managerial control over events in their own country. Inadequate consideration has been given to the choice of technology: choice of machinery and of technology are dictated by availability, cost to the individual owner and rate of return on investment. No attention was given to this important matter by any of the consecutive governing authorities. Thus neither the proper frame of mind nor the governmental institutions for performing the analytical studies and the management of the process of technology acquisition exist. At this moment the Palestine Liberation Organization lacks the means to undertake the necessary studies to determine criteria and guidelines on this subject. Thus we are unable to identify the most appropriate means of production, their economics and the opportunities that are presently open to the population under occupation for managing the process of technology transfer.

3.1.2 Elimination of obstacles

Israeli occupation is doubtless the major obstacle to the effective utilization of science and technology in development. It is sad indeed that neither the UN system nor the International Red Cross - nor any other humanitarian agency for that matter - has given adequate thought to the science and technology that could and should be transferred to populations suffering from the ravages of oppression and occupation. The obstacles to the better utilization of knowledge in LDC's are certainly less difficult than those met by Palestinians. The Israeli forces of occupation have systematically increased the dependence of the occupied territories on the Israeli economy, reduced the limited self-reliance in Gaza and the West Bank that preceded the 1967 occupation and have disrupted the feeble economic structure through the manipulation of prices, wages and controls.

Under these extremely difficult conditions the Palestine Liberation Organization can only attempt remedial and grass-root actions. Here the UN and all major humanitarian institutions are called upon to play a major role on the level of each town, municipality and village to build up local capacities to withstand the obstacles.

3.1.3 Methods of integrating science and technology in the economic and social development of Palestine

The developmental experience of the Palestinians indicates clearly that a number of methods have been successfully utilized on a grass-root and small scale. We shall discuss several of these methods, mentioning briefly some relevant aspects of the experience and indicating desired developments that could enhance the efficacy of the method to integrate science and technology in the economic and social development of the Palestinian community. It is important to note here that because of its special circumstances, Palestinian economic development is not synonymous with national economic development. As we have already observed, the successful pursuit of higher education and employment in Arab economies has certainly led to a social and economic development of a portion of the community. However, such developments may not be reflected in positive social or economic changes within Palestine itself. Despite these serious difficulties there is a great deal to learn from the experience accumulated over the past three decades.

The educational systems, medical facilities, municipalities, professional associations, engineering and contracting firms and agricultural extension programmes have all served as methods for integrating some science and technology with the social and economic development of some portions of the Palestinian community. The challenge facing the Palestinians is to identify the appropriate means for improving these methods.

3.1.3.1 The educational system

Education has been recognized as an important method for the acquisition of new knowledge as well as for the integration of science and technology in social and economic development. Most science policies of LDC's give special attention to the education of scientific manpower. Palestinian HLM have successfully integrated their learning with the social and economic development of the Arab States, and to a more limited extent, with their own community. The achievements so far can probably be increased and intensified if the educational system is oriented towards Palestinian problems, and if youth are better equipped to solve them. This aspect of education has been discussed at length in I.O.

The existing educational system is sufficiently flexible and open that a dedicated and well thought-out programme could very well lead to its transformation to serve the intrinsic needs of the Palestinian people. UNRWA and UNESCO are directly responsible for the education of a major portion of Palestinian children at the elementary school level. Secondary, vocational, technical and higher education fall under the jurisdiction of a variety of agencies: public, UNRWA/UNESCO and private. As we have already indicated the Israeli occupation forces intervene directly in the educational process. Naturally a major challenge is to invent, test and develop suitable curricula and teaching materials. This can be done in many different places. Once suitable systems have been tested, the problems posed by their dissemination may be examined.

3.1.3.2 Medical facilities

Successful attempts to introduce modern medical practices to the Palestinian community have been made by UNRWA, private groups (e.g. the Maqassid Hospital), the Jordanian Government in pre-1967 West Bank, and the Red Crescent. These attempts, however, have so far failed to provide every person with an adequate standard of health. Existing public health and prevention medical technologies can be adapted to Palestinian needs: every home can be given access to clean water, inexpensive but effective sewage disposal systems, basic prophylactic inoculations and medical services. There is every reason to believe that the necessary R & D work as well as the training of technical manpower are within the means of the Palestinian people. Measures need to be taken within and outside occupied territories.

3.1.3.3 Municipalities

The decentralization of the planning process to the regional and district levels is one of the cherished dreams of development planners. However, this objective is often found difficult to achieve, and the effective planning authority frequently resides in the capital city. In the Palestinian case, circumstances beyond the control of its people have ascribed heavy responsibilities to municipalities under occupation. These public institutions, in the absence of a local national authority, have had to assume numerous roles in the daily life of the community. Furthermore, a municipality has to deal directly or indirectly with a variety of technological problems associated

with basic needs (health, nutrition, education, housing), transportation and the licensing of a number of economic activities. The capacity of municipalities to undertake economic planning and to integrate science and technology into such plans is limited. This institutional weakness may be remedied if each town municipality with a population of 10,000 or more (and there are at least 12 of these) is endowed with a planning unit. A central planning R & D centre should also be established to support these units with specialized technical advice, information and field surveys of common interest. Such a strengthening of existing municipalities should eliminate a number of obstacles that presently restrain them from a fuller participation in regional development.

3.1.3.4 Professional associations

Professional associations in LDC's often fail to play a full role as organized bodies that establish: feedback mechanisms linking the educational system to the exercise of the profession, linkages between different segments of the labour force, programmes for the dissemination of new and relevant information and explicit technological goals in specific professional fields. These functions are of a higher level of complexity than those having to do with accreditation, counselling and employment, social integration, seminars and conferences. Because of the wide dispersal of Palestinians the full development of the professional associations has been slow, yet they could play a very powerful role in integrating science and technology in economic development.

3.1.3.5 Other methods

A number of other methods for achieving the desired integration are common to all LDC's, e.g. the improvement of farm extension services and the development of national engineering and contracting firms. Unfortunately, however, the Palestinian consulting and contracting firms are all based outside Palestine and are deeply integrated with the development of other Arab States. The means must be found for transferring some of this expertise to occupied territories.

3.1.4 New science and technology for overcoming obstacles to development

Existing science and technology is adequate to solve current obstacles and it is doubtful that new discoveries are presently needed.

3.2 Institutional arrangements and new forms of international co-operation in the application of science and technology

The processes through which science and technology are applied to serve the social and economic needs of the Palestinian people may be accelerated and intensified through both the strengthening and expansion of existing institutions and the creation of new ones. Because of the restrictions imposed by the Israeli forces of occupation in Palestine, it is sometimes necessary to establish new institutions outside the occupied territories and to identify ways for the dissemination of their output to the appropriate persons and institutions.

3.2.1 The building up of existing institutions

A brief statement on the short and long-term technological perspectives is necessary before one can fully appreciate the complex situation at hand. At present, economic and technological activities are dictated by the skill endowment of the labour force as well as by the conditions of the agricultural and industrial sectors. The high density of population and the expectation of a population in excess of 8 million by the year 2000 necessarily call for intensive vertical development of all sectors of the economy. The absence of rich mineral resources dictates that industrial development must depend primarily on a high quality labour force. Some of these industries may be based on present skills; for example, a modern fermentation industry to produce speciality cheeses, isoglucose and antibiotics, could have a home in Palestine. Completely new industrial activity in, say, the electronic field, and in medical and scientific instruments, could equally well be successfully established given adequate preparation and planning.

It is difficult at this time, to envisage in detail the industries that could be successfully established. But there is no doubt that an independent Palestinian economy, rich in skilled and professional manpower, will find the opportunities for contributing to the expanding and complex Arab economies.

The implied uncertainties call for the establishment of high quality institutions capable of a performance at the prevailing international standards. It is in this context that the institutional development of academic institutions in relation to R & D is conceived.

It is clear from the information presented so far that there already exists a number of educational, public, medical and engineering institutions that are candidates to play critical roles in the transformation of prevalent social and economic conditions. We have already indicated the type of reorientation in functions of some of the existing institutions.

Academic institutions should expand their capacity to educate scientific manpower and become, as elsewhere, major centres for R & D. 1/ Despite the small size and limited resources of Palestine it is possible through an effective use of science and technology to build on and diversify present economic activities in: civil engineering; public health; food industries with heavy emphasis on enzyme engineering; management of water resources; small scale chemical industries based on the traditional expertise in essential oils; soaps and perfumes; mechanical industries associated with the design and manufacture of small scale plants and of specialized farm and construction machinery; touristic industries based on the historical and climatic resources of Palestine; a publishing industry with special emphasis on textbooks for the rapidly growing number of Arab university students; international road transport; engineering and contracting services to the region; design and manufacture of solar and desalination plants. In each one of these directions there is a need for a considerable development of existing institutional facilities.

1/ Academic institutions on the West Bank and Gaza now account for only a small percentage of all Palestinian university students. The Palestinians under Israeli occupation have a lower access rate to higher education than their fellow Palestinians living outside the occupied territories. It is thus imperative to assist the ten institutions providing university level instruction to attain by 1983 an enrollment of 40,000 and to develop new programmes in technical fields. By 1983 there will be about 200,000 Palestinian students enrolled in universities throughout the world.

The building-up of the capacity in science and technology of present institutions to serve national development will obviously require the creation of new facilities, the planning of relevant research and training programmes and the establishment of effective mechanisms for linking these activities to the users of the technology, to the relevant public institutions, and to the national authority responsible for economic planning. It is believed that the highest priority should be given to the strengthening and development of existing institutions rather than to the creation of new ones. A few new institutions are called for but it is important not to build new institutions at the expense of old ones. R & D must be first firmly established at vocational and technical educational institutions, at agricultural stations, at universities and medical centres before the establishment of specialized national research centres can be considered. The very success of specialized national research centres depends on the existence of a solid scientific and technological infrastructure.

Outside occupied Palestine it is necessary that the specialized branches of the Palestine Liberation Organization involved in technical activity develop research units. These units are needed to generate solutions to problems, to bring to the attention of the leadership policies and technical issues of political, social and economic importance, and to provide support to the ongoing institutional developments in Palestine.

3.2.2 R & D in industrialized countries

It will be extremely difficult, if not impossible, to implement the activities enumerated under 3.2.1 under the prevailing conditions of Israeli harassment and control. The national institutions will generally be unable to admit into occupied territories all the staff they need. It would thus be of the utmost importance for institutions in both the Arab States and in socialist and western countries to establish Palestinian research units to work on Palestinian problems. These units should be planned in co-operation with institutions presently under occupation. Once the present state of occupation is eliminated the research units could be promptly integrated with their home bases. Naturally, such units established abroad must have some associated activities at the home institutions and must develop suitable means for linking their programmes and output with national institutions. These research units could be established in all the areas mentioned under 3.2.1

In view of the available Palestinian HLM resources, the Palestine Liberation Organization advocates the concept that R & D conducted in industrialized countries for the purpose of serving the Palestinian people be undertaken with Palestinian HLM.

3.2.3 Mechanism for communication

The exchange of information and experience is an important function in any research or developmental activity. The Palestine Liberation Organization subscribes to the view that this process can take place most effectively through the participation of researchers and technical manpower in national regional and international seminars, conferences meeting and through study leaves. The second most important channel is through adequate library facilities.

The institutions and their professional manpower can be greatly assisted by the international scientific community if relevant publications (books and periodicals) are made freely available to them and if they are invited to attend professional meetings of interest to them.

3.2.4 International co-operation

At present the Palestine Liberation Organization has not benefitted fully from the existing resources of international institutions. Furthermore, the few programmes we have had with UN agencies have been unduly slow in being implemented. Thus, the Palestine Liberation Organization first seeks to receive technical assistance and services from the existing UN system before it can determine whether new forms of co-operation may be needed.

3.2.5 Technical co-operation among developing countries

The Palestine Liberation Organization enjoys friendly relationships with most, if not all, developing countries. In the view of the Palestine Liberation Organization, the promotion of technical co-operation among the developing countries is of considerable importance. For example, in the Palestine Liberation Organization's struggle with meeting basic human needs, rural development, and appropriate technology there is much we can learn from sister LDC's. The capacity of Palestinian institutions to co-operate with other LDC's would be enhanced once national institutions are adequately developed.

3.2.6 Utilization of the UN system

Other national papers have addressed themselves to basic problems associated with the UN system. The Palestine Liberation Organization's concern is with those institutional characteristics that inhibit the UN system from providing its resources to serve the needs of oppressed people. In the view of the Palestine Liberation Organization, the UN system has failed to provide Palestinians under occupation or in the Arab States with an adequate share of its resources. This may be due in part to the Palestine Liberation Organization's recent admission to its present station. A second reason may arise from the fact that at the moment the Palestine Liberation Organization possesses rudimentary capabilities in the fields of science, technology and development planning while the UN system is a giant multi-agency institution. It is difficult for two such systems to communicate effectively. A specific recommendation will be presented to resolve this problem.

4.0 RECOMMENDATIONS

The Palestine Liberation Organization is engaged in a relentless and dedicated struggle for national liberation. Although we are confident of attaining our national goals the Palestine Liberation Organization cannot establish a specific timetable of progress towards its objective. Thus, unlike other LDC's we are unable to relate specific recommendations to a schedule of operations and projects. The fundamental Palestine Liberation Organization policy guiding the recommendations presented here is that national institutions should be developed at the maximum speed possible and preparations for independence be undertaken. Thus the recommendations presented here are designed to secure the maximum advance in institution building and in integrating science and technology with feasible social and economic development in parallel with the establishment (in exile whenever necessary) of all the essential units and capabilities for planning, managing, researching, administering of the Palestinian State once created. It is of the utmost urgency that the Palestine Liberation Organization acquire the necessary instruments in this sphere in order that independence usher an era of rapid and stable growth to make up for decades of hardship and suffering.

4.1 National level

On the national level there are two strategies that must be pursued simultaneously. The first aims to consolidate and develop existing institutions and manpower, while the second aims to prepare the necessary institutions, methodologies, policies, manpower for managing the technological dimensions of economic life of an independent Palestine.

Recommendation 1:

The development of the technological and economic planning capabilities of all the municipalities of the towns on the West Bank and the Gaza Strip

In line with the Palestine Liberation Organization's democratic orientation & in line with the proven innovative and responsible behaviour of Palestinian municipalities, it is recommended that regional and international support be granted to strengthen and/or create a specialized planning unit attached to the mayor's office in every town. This unit should be enabled to compile necessary information, to undertake directly or through consultants, the necessary studies on the relevant social and economic problems of the town and the surrounding region. 1/

One R & D research centre should also be established, preferably on the campus of one of the three existing universities. This centre should specialize in providing specialized services to the municipal planning units.

Recommendation 2:

The holding of a Palestinian conference of the agents of social and economic activity

The diverse agents of economic activity inside and outside Palestine have, so far, evolved in directions dictated by their immediate environment. It is important that a conference be organized by the Palestine Liberation Organization to bring together all the parties concerned, inclusive of professional associations, with a view to exploring ways and means for systematic and conscious integration of these Palestinian assets.

1/ It is recommended that the 12 municipalities share responsibility for the rural areas.

Recommendation 3:

The development of scientific and technological research and education in the institutions of higher education on the West Bank and Gaza Strip

It is recommended that a whole range of useful and relevant applied research work be established giving special attention to linking the activity to users, local institutions, the educational process and the development of the country. It is also strongly urged that this process of institutional development be closely co-ordinated with recommendation 1.

Recommendation 4:

The creation of a Palestinian Development Bank and a Palestinian Industrial Bank

It is recommended that financial resources be provided by the Arab States as well as international organizations (such as IERD, UNDP) to establish these two banks to make it possible to finance development projects in both the private and the public sectors.

Recommendation 5:

The establishment of a full scale policy study and planning capability

Upon independence, every effort will have to be made to establish effective central authority. No time should be wasted to compile information, analyse present conditions or envisage likely futures. It is recommended that the five Arab funds for social and economic development, finance and assist the Palestine Liberation Organization to establish a full scale planning centre whose mission would be to develop the appropriate methodologies, data base, linkages and policy studies that will be needed upon independence.

4.2 Regional level

The Arab States, as well as the Arab regional institutions, have extended substantial support to the Palestinian people since 1948. Because of the disparity in the resources of the Arab States the recommendations cannot be equally relevant to all of them.

Recommendation 9:

Universities and research institutions throughout the world to establish Palestinian R & D units specialized in areas of mutual interest. These units to work closely with institutions in Palestine and to be released for their transfer to Palestine upon liberation

The Palestine Liberation Organization will prepare detailed plans for the desired R & D units and will collaborate with host universities in their establishment. The units may vary in size and scope but are to be dedicated to the study of R & D problems of relevance to Palestine. It is expected that the host university would provide the funding, management, and infrastructure for the unit.

Recommendation 10:

The establishment of a UN unit to assist the Palestine Liberation Organization to make full use of the resources of the UN system

It is recommended that the UN establish a small unit of highly qualified persons familiar with the resources of the UN and the needs of the Palestinians to assist the Palestine Liberation Organization in rationalizing and optimizing its utilization of the UN system. This unit may be dissolved once the Palestine Liberation Organization acquires an effective system for co-operating with the UN.

Recommendation 11:

UN Agencies and the Palestine Liberation Organization

During the period when Recommendation 10 is being implemented, it is recommended that the United Nations Development Programme, the specialized agencies and other organizations within the United Nations system, intensify their efforts in identifying the social and economic needs of the Palestinian people; and also to consult and co-operate with the Palestine Liberation Organization for establishing and implementing concrete projects, utilizing their scientific and technological means and resources, to ensure the economic, social and cultural development of the Palestinian people.

One of the most difficult problems facing the Palestine Liberation Organization in its attempt to integrate science and technology with social and economic development is the financing of projects. The three recommendations proposed on the regional level all deal with the problems of financing projects and marketing the products.

Recommendation 6:

That Arab States grant applications for loans to finance industrial and agricultural projects on the West Bank and Gaza Strip equal opportunities and terms as they do their own citizens

Municipalities and private firms should be able to secure the funds to execute useful projects.

Recommendation 7:

The Arab funds for social and economic development, in collaboration with the Palestine Liberation Organization, to initiate preparatory work to identify the infrastructural projects with the highest priorities

It is recommended that systematic and detailed planning be initiated in the area of water and agricultural resources, transport, food storage facilities, town planning, energy resources, exploitation of mineral resources, power generation, telephone communication system, housing and construction.

Recommendation 8:

Trade relations

To assist the Palestinians to combat Israeli economic harassment, it is recommended that the Arab States accord bona fide products of the West Bank and Gaza absolute preference over all other products.

4.3 International level

The Palestine Liberation Organization welcomes international co-operation within and outside the UN system. The Palestine Liberation Organization invites all friendly nations to share with its experience in the field of science and technology. The Palestine Liberation Organization is prepared to organize visits and training missions to relevant institutions. There is, however, no doubt but that the most important assistance that could be rendered to the Palestinians is the termination of Israeli occupation and aggression.

