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A Strategy for Efficient Research Funding in Palestine

Introduction

Development and progress of nations are judged by the level of research. So, scientific research is a cornerstone for development of any nation around the world. Arabs in the past entered the history from its broadest doors because they widely advanced in research. The developed countries have reached a highly advanced stage with respect to all aspects of life because they paid a great deal of attention to research and development programs. A big portion of the national GDP (Gross Domestic Product) in these developed countries is spent annually on research. A big part of that research is carried out at academic institutions and some other institutions specialized in conducting research. Industries in developed countries are heavily dependent on research, so that they have always the capability of improving their products or producing new products with high quality.

In Palestine, or more accurately the Occupied Palestinian Territories (OPT), the research is not in a good shape, similar to other Arab countries. Israel (the Occupying Power), on the other hand, has paid, since its

establishment in 1948 (some 60 years ago), a great deal of attention to research. To have a balanced and fair view, the OPT is not in a position to be criticized in relation to research, which is because of the political and security circumstances surrounding and affecting the Palestinian society in the OPT.

However, regardless these circumstances, which have been partly caused by the Israeli Occupation and its resultants of collective punishment and other measures, the targeted Palestinian institutions in the OPT must be always concerned of encouraging research that must go hand-in-hand with education. In this regard, the Palestinian institutions (universities, governmental and nongovernmental) need to establish a long-term strategy for research and development programs that will serve all sectors of life in the OPT. Such a strategy must take into consideration several factors including: national interests, research priorities, seriousness, commitment and transparency, as well as encouragement of qualified Palestinians to come back to Palestine to be involved in this long-term strategy, in order to serve their Palestinian people in the best way possible.

The aims and objectives of the strategy are to create a research and development system that is relevant, flexible, effective, efficient, accessible, sustainable, and which fulfils its general obligations towards the Palestinian society.

Research Status in the OPT

The world has experienced an unprecedented and ever increasing rate of technological development in the last century which continues very rapidly and progressively during the present (21st) century. Technology and information technology, in particular, have changed the perception of distance and time, which have enabled the world to become a "global village". As a result, it is not only the financial capital flowing freely around the world, but so are natural resources and all kinds of products. It is well known that the market around the world is dominated by large corporations that decide freely where to invest and, thus, create jobs and wealth.

As for where to invest, the main factors of importance in any country are the efficiency of the local labor force (the produced output per salary unit), the political stability of a concerned region, and the political environment for investment (taxation, infrastructure, etc.). So, as a consequence of the internationalization of capital, the wealth of a nation depends, to an unprecedented degree, on the qualifications of its labor force.

The Palestinian National Authority (PNA) – the governing body in the OPT since the Oslo Agreement was signed in 1993 between the Palestine Liberation Organization (PLO) and the State of Israel – has, unfortunately, inherited a run-down system of education and technical training, which has been even deteriorated since then. It is a system designed to train low

skill workers for the Israeli labor market. However, due to the difficult situation in the OPT, politically, geopolitically, educationally, economically, socially, etc., it is becoming harder and harder for Palestinians to pursue higher education or even basic education. The Israeli policies of occupation imposed on the Palestinian people over the last forty years have hindered any programs related to development in the OPT, especially if one talks about sustainable development programs. This is of course applied on research, which is a direct result of education and, at the same time, a supportive factor for improving the educational and training system.

Aside from the political and other circumstances surrounding the Palestinian society in the OPT, the Palestinians need, sooner than later, to find mechanisms to encourage research and development programs, which need to be strongly founded.

Obstacles Facing Research Advancement

Aside from the Israeli Occupation's policies, which have hindered and do keep hindering the advancement of research in the OPT over the last forty years and counting, the Palestinians in the OPT must realize that many of the obstacles facing the research advancement in the OPT are from within, and, thus these obstacles can be overcome. If these obstacles can be identified, it will be then easy to develop a long-term strategy that will serve the research and development programs in the OPT.

Some of the obstacles facing the research programs in the OPT, which the Palestinians must take responsibility of, are the following:

- 1) Lack of interest, at the public, academic, governmental and nongovernmental levels, of doing research, and if it is done, it is generally not of a high quality to compete with international standards of research.
- 2) Of course the high quality research needs adequate funding and, unfortunately, the OPT generally suffers from lack of funding (or lack of budget allocations for the research and development programs).
- 3) Another group of factors related to research funding include: Lack of suitable financial authority for spending, and lack of mechanisms for spending in the right time without delay.
- 4) Lack of qualified personnel or research teams, and if available, the lack of interest and the lack of funding (as mentioned above), are still big obstacles.
- 5) Lack of research infrastructure, such facilities, laboratories, periodicals, proper places, permits to conduct field measurements and surveys, as well as the right environment for doing research.

- 6) Lack of encouragement at the academic, governmental and nongovernmental levels, which should be initiated from within the institutions themselves and from outside organizations.
- 7) Lack of qualified people to supervise research programs and to lead research projects at the academic institutions, and if available at certain institutions, their number is not enough to supervise more postgraduate students and/or to lead projects. This is partly due to the fact that many (if not most) of the professors at the Palestinian universities are heavily involved in the teaching program rather than in the research program.
- 8) Presence of bureaucracy (non-intentional) and bureaucratic policies (intentional) at the administrative level in most of the academic, governmental and non-governmental institutions, which slow down the researchers' enthusiasm and desire from doing research.
- 9) One of the most important obstacles behind weakness of research, poor quality of research, or in some cases, total absence of research is the lack of cooperation and coordination amongst researchers and their host institutions or organizations. In this case, a clear and binding mechanism for cooperation and coordination amongst the various governmental, nongovernmental and academic institutions is a must. In addition, cooperation and coordination amongst researchers within the same institution and at other institutions should be a necessity. This needs plans and policies designed for continuous activities, such as meetings, workshops, conferences, electronic forums, etc., in order to keep cooperation, coordination and communication means very active.

Long-Term Strategy for Research

In the OPT, the high rate of education and the young age of the Palestinian population, as well as the urgent need for doing research are all important factors that should be taken into account when developing a long-term strategy for research in the OPT and in the future State of Palestine.

Doing research in any society is not a luxury thing anymore, and the Palestinian society is no exception. This is regardless the obstacles mentioned above and those resulted from the Israeli Occupation. So, in order to have a long-term, successful and efficient strategy for research in the OPT and in the future Palestinian State, the following factors need to be considered:

1) Research Culture and Generation's Building: Those who are in charge (such as the Ministry of Education and Higher Education and the Ministry of Planning) need to work on creating a research culture. This should include, among other things, building a new generation, which has strong

enthusiasm for research and desire to do research. This requires creation of spirit amongst the young generation (particularly school and university students), and supporting and encouraging their willingness to do research. This is a very important task, especially in the presence of the Internet that makes research tools much easier than before.

2) Activation: This means activating the already-existing governmental institutions, which are concerned of research and development programs. This needs that the PNA should create and encourage research and development programs in all areas of concern, which directly benefit the Palestinian society.

3) Priorities: The concerned institutions (ministries and their affiliated departments, universities, research centers, etc.) are required to put a plan for priorities of the research areas that benefit the Palestinian society at most. These plans need to be frequently revised and updated, depending on the local, regional and international circumstances and changes. This should be in relation to the demographic variations, along with the sustainable development programs in the areas of education, health, water, environment, agriculture, biodiversity, biotechnology, industry, natural resources, energy, climate and climate change, information technology, transportation, communication, safety, security, etc. The variations must also take into consideration the political and geopolitical circumstances of the Palestinian people in the OPT and abroad.

4) Research Atmosphere: To have good-quality research, one needs the proper atmosphere. This requires strong links of cooperation and coordination amongst all people concerned, particularly at the Palestinian level. This should include the academic institutions (universities, colleges, etc.); the research units at hospitals, industries, etc.; the governmental institutions that include the various ministries; and the nongovernmental institutions whose main concern is research, as in the case of the Applied Research Institute – Jerusalem (ARIJ).

5) Postgraduate-Studies Program: The universities and ministries concerned need to establish an effective and efficient program for postgraduate studies to serve the students who wish to pursue their Master and Doctorate degrees in various areas of interest, particularly those touching, very closely, the needs of the Palestinian society. The universities, in particular, need to develop such a program by exploring the students who have passion for research and, at the same time, who excel in doing research. The universities also need to encourage and support those students by all means possible (financially, academically, technically and otherwise) and by providing them with opportunities to pursue their postgraduate studies, either at the national universities or abroad. This requires cooperation and joint programs; internally amongst the national universities and research institutions, and externally amongst the national and international institutions and organizations.

6) Research-Funding Mechanism: An effective and efficient research-funding mechanism needs to be developed in the OPT, by taking into consideration several factors, including:

6.1) Close Identification of Research Priorities: A team of specialists at each of the institutions concerned needs to identify, specify and categorize the research priorities of its own, which benefit the institution's plans and strategies, in the first place; the local community and the Palestinian society, in the second place; and the vision for a long-term research and development program, in the third place. For example, institutions need to ask such a question: In regard to the present situation of the Palestinian people living under occupation, is it a priority to conduct research in the area of nano-technology or in the area of medical engineering? Some might say the first area is more important, others might say the second area is more important, a third group might say both areas are important, and a fourth group might say none of the two areas is important. In view of this, defining priorities, based on several factors, by a team of experts is very important.

6.2) General Obligations Towards Society: Research and development programs that are carried out in cooperation with international partners (Arabs, Europeans, Americans, Japanese, etc.), either technically, financially or both, need to be defined in terms of how these programs would serve the Palestinian society on the short run, as well as on the long run. It must be clear that such programs must match up with the Palestinian national agenda in the first place, and not with the agenda of the donors or other parties concerned to fulfill their political goals or to serve their agendas, locally, regionally or internationally.

6.3) Transparency in Spending: Research projects funded by outside donors must take into consideration the transparency factor when allocating the budgets for the projects. How the money is spent and when and where to spend the money of the concerned projects should be subjected to a group of standards provided by a committee, which have the mandate and ability to observe and track the money spent and where it ends.

6.4) Research Pro National Interests or Pro Normalization?: As the region is presently witnessing a process for potential peace between the Palestinians and Israelis under the US' umbrella (a peace process that is a continuation of the "pseudo" peace process that took place over the last 15 years without reaching any positive results to the Palestinian people), a lot of projects are presently available and will be available in the future, with the goal of normalization with the State of Israel and its various institutions. It is important to emphasize here that reaching peace and liberty for the Palestinian people must be an upper and foremost priority for the decision makers and everyone concerned. Certainly peace should not be at any price. The principles for just peace between the Israelis and the Palestinians have been defined by the PLO. These principles have been

also accepted by most of the Palestinians within the OPT and in Diaspora. The principles include: 1) The establishment of a Palestinian State on all of the Palestinian territories (the Gaza Strip and the West Bank, including East Jerusalem) occupied by Israel in June 1967; 2) East Jerusalem is the capital of the Palestinian State; 3) Dismantling all of the Israeli settlements and the Israeli Segregation Wall and all other walls and barriers, which all are illegally built on Occupied Palestinian lands and in violation of the International Law, the Fourth Geneva Convention, and the Human Rights' norms and standards; 4) Full sovereignty of the Palestinian State and full freedom of movement of the Palestinian people within the Palestinian State and abroad; 5) Full control of all of the water resources and other natural resources; 6) Full control of the borders of the Palestinian State and all entries to the State (including land, water and air entries); and 7) A just solution for the problem of the Palestinian refugees, based on the United Nations' resolution 194 (issued on December 11, 1948) and other related UN resolutions. In view of this, it is believed that the Palestinian institutions need to develop a "Code of Conduct" based on these principles before signing any research projects with other institutions and organizations, which aim at normalization with the State of Israel, only for the sake of normalization at any price.

6.5) *Relevance*: The research-funding mechanism should be relevant, in the sense that it should provide capacity building, such as training, corresponding with the needs of the projects, the needs of the institutions, the needs of the Palestinian society, and the needs of the market. In the end, it should lead to a system that is demand-driven. Relevance, thus, is ensured through a system of monitoring, in the form of surveys of the research institutions concerned.

6.6) *Flexibility*: In order to ensure a research-funding mechanism that truly contributes to national interests and national development program (i.e. a mechanism that is demand-driven), it is necessary to create a funding mechanism that is flexible, and has a high rate of participation of all of the concerned stakeholders. Finding a flexible funding mechanism is important, because of the unstable political situation facing the Palestinian people in the OPT. This means that the mechanism must be capable of quickly adapting itself to the ever changing demands of the Palestinian society, especially in the lack of any political horizon, regarding a just solution for the Palestine Question.

6.7) *Effectiveness and Efficiency*: As funding resources for research are scarce, effectiveness and efficiency are highly important factors when considering a long-term funding strategy and funding mechanisms. The effectiveness of the mechanism, with respect to the extent to which the research outputs correspond, especially in terms of quality of the research conducted and to what is intended to produce, should be ensured through comprehensive and continuous monitoring of the funding strategy and mechanisms. The efficiency of the funding strategy, or the relationship between inputs and outputs, should be constantly improved, by making a

better use of the existing mechanisms of funding, and by integrating various possible means of funding. So, both approaches (effectiveness and efficiency) go hand-in-hand in improving the funding process and the way research should be done.

6.8) Sustainability: A successful funding strategy for research, which is (as discussed above) transparent, relevant, flexible, effective and efficient, should be and will be sustainable, as long as sufficient financial resources are available. This means that the parties concerned should always consider permanent resources of funding for research and, alternatively, renewable funding resources. So, these funding resources should include the idea of creating a "National Science Fund (NSF)", as proposed by the Palestine Academy for Science and Technology (PAST), with the support and efficient contributions of governmental, nongovernmental, academic and private institutions. They should also include funds that come from international organizations, with the goal of enabling the Palestinians under the Israeli Occupation to establish sustainable development programs, aiming towards improving their lives. Another source of research funding should be through encouraging and supporting research projects, which can, in turn, generate profits. Grants and donations, with the aim of supporting research, are another option to be considered for financing research and development programs in the OPT.

6.9) Accessibility: Although the research-funding strategy is a demand-driven, it is realized that the strategy should have a responsibility towards the less-fortune institutions that express a great interest in conducting research. Such a funding strategy should also consider, through the affiliated institutions, the groups in the society which need urgent research. In addition, a preference in research funding at universities should be given, in particular, to certain groups of students who wish to pursue their postgraduate studies, including students with disabilities, female students, and poor students.

Conclusions

Education and research are the mirror reflecting the degree of development and progress of nations. It is noteworthy to mention that the gap in progress between the Arab countries and the developed countries is somewhere between 100 and 150 years. This can be attributed, to a certain extent, to the lack of research and development programs in the Arab world.

One of the main reasons behind the backwardness and the lack of progress and development in the Arab world, despite all the wealth and natural resources which the Arab countries enjoy, is the lack of interest in doing research. This can be attributed to the lack of plans, policies and strategies for encouraging and supporting research by the decision makers in the Arab countries. Adding to this is the low level of education across the Arab world, based on the fact that approximately 1/3 (roughly one

hundred millions) of the Arab population in the Arab world cannot read or write. This is despite the fact that many Arab countries can fund huge programs of education and research, if the regimes in those countries have the will to do so. It is well known that a very small fraction of the GDP in the Arab countries goes to research and development programs.

Regarding the Palestinian society in the Occupied Palestinian Territories (OPT), the research activities at the institutions concerned are much less than what it should be. This is due to several factors, including those related to the Israeli Occupation on the one hand, and those related to internal causes, on the other. However, to achieve a satisfactory level of doing good-quality research in the OPT, a long-term strategy needs to be developed, in which many issues should be taken into account. One of these issues is the creation of a funding strategy based on several factors, including (among others) interest, seriousness, commitment, transparency, effectiveness, efficiency, flexibility, accessibility, research priorities and, above all, the national agenda of the Palestinian people.

3.2 Attendant Open Discussion, Community Oriented research:

This discussion was open to all attendance to participate freely with their ideas and recommendations. The audience focused their suggestions and recommendations to consider in order to develop research in Palestine.

Suggestions from graduate students were also made. The suggestions and recommendations are summarized at the end of this section (below).