Economic Research on the Middle East and North Africa: A View of the State of the Art

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A comprehensive view of economic research might begin with the calculations used by the Achaemenids and Egyptians in their construction projects and finish with the models used to predict elasticities of demand for crude oil in the year 2000. But the task of this paper is broader than a thorough review of the past research because the focus is on future research criteria and priorities.

The paper will first discuss research published in the past fifteen years and will categorize the work in three groups: historical, macro and country studies; sectoral, micro and topical, e.g., finance; and international and interdisciplinary. Then, guided by the results of a questionnaire, future research will be discussed. Finally a word will be said about the problems and responsibilities of the producers and consumers of research.

1/ This project was initiated while the author was a Research Fellow, The Woodrow Wilson School, Princeton University. It was funded by a grant from the Ford Foundation to the Middle East Studies Association (MESA). Carl Dahlman, Jose Abiseid, and Fatima el Taleeb provided able assistance. The author would also like to thank the correspondents who guided the initial steps of this project, the respondents to the questionnaire, and the participation at the meetings at the Center for the Advanced Study of the Behavioral Sciences.

This paper has the impossible objective of discussing past and future research for an audience that includes undergraduates and graduate students, representatives of funding agencies and economists already knowledgeable about the region. The paper may therefore bore some readers and not give sufficient detail for others. If it serves to elicit future articles for these specialized audiences, then a major goal of the project will have been achieved.

Part I: INTRODUCTION

The Discipline

Development is a field of economics that traces its history back to Adam Smith's Wealth of Nations and his concern for economic growth. Since the end of the second world war research published in this area has increasingly focused on the developing countries, but not to the exclusion of the developed countries. Furthermore, development economics, in its attempt to explain why some countries grow and develop and some do not, draws on all the fields of economic inquiry ranging from econometrics to agriculture. While growth has been a major preoccupation of development economists, other issues have received increasing attention in the past 10 years.1/ How efficiently is growth being achieved? Who benefits from the growth? The initial answers to these questions suggest that the proportions of capital and labor, often based on imported technology, are inefficient, and do not appear to be getting less so. Also we find that not only is the gap between the lowest and upper income groups widening in many countries, but the poor are getting poorer. Finally, there is renewed concern for understanding individual economic behavior for issues including the determinants of fertility, labor productivity and satisfaction, and rural savings.

Is development economics based on universal theories and policies that will vary only in degree across regions and countries? Is the topic of the economic development of the Middle East seen as a legitimate one by development economists? The models of Middle Eastern economic phenomena do not

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1/ For a review of the equity issue see Chenery, Duloy, and Jolly.

differ in kind from models for Latin America. The results from the application of data to the models may differ among countries, but that will be due to different resource structures or economic maturities. As we learn more about the function and structure of the poor economies we may find that regional- or country-specific models will be required.

If development theory and policies are not regionally specific, is it valid to have economists who are specialists in the Middle Eastern region? Not only is it legitimate to have these specialists, but it is important so that our understanding of both the better and lesser known economies of the region may be maximized in the shortest time. Only through the work of these specialists, and those working in other regions in the world, will it be possible to broaden and deepen our understanding of both general development models and the topic of comparative economic systems.

Some topics in development economics like micro, sectoral, and commodity studies have benefited from the knowledge of the physical and social sciences. Communications theory has been as essential in understanding farmer innovation processes as engineering has been for understanding the physical efficiency of phosphate mining. And one of the more promising areas for future economic research is in further collaboration with physical health and other social sciences. If collaborative work is to progress, it is a useful digression to know how economists are perceived by their colleagues.

Through informal discussion several perceptions of development economists did emerge.2/ Most important was the observation about the inadequate

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2/ This is a sufficiently important subject that a more formal study would be useful. It could be broadened to include the consumer of economic research.

and often harmful results of economic planning, even in countries that had strong weights attached to their equity objectives. Some anthropologists felt that when they were involved in action-oriented research the objective was to soften the harmful effects of the planned change and social engineering of the economists. The villagers and the nomads have suffered at the benefit of the urban populations. Another perception was that economists were concerned with material, not human values, in their efforts. In their desire to maximize the rates of economic growth, economists ignored the effects that building a capital-intensive shoe industry would have on the lives of shoe artisans who would be thrown out of work. A final perception was that economists were action-oriented without having a sufficient understanding of what actions to take and how, as well as not knowing enough about the effects that these actions would have on people. While some of the opions reflect neither the diversity within economics about the questions that are raised, nor the present trends, they should give pause for reflection.

The Region

Since this essay is about the study of economic phenomenon in the Middle East and North Africa, it is useful to describe briefly the economically important characteristics of that region to distinguish it from other major geographical regions. Social, political, and geographic factors as well as economic will be considered.

Four geographic features dominate an economic characterization of the region: the rivers and sea coasts along which most of the population lives; the deserts and semi-arid plateaus which have the lowest man/land ratios in the world; a major mineral resource, oil; and the geo-strategic importance of a landmass lying astride the most efficient land and water routes between Europe and Asia (more important for early development than for the present), including

the possession of war water ports that have been coveted by Central Asian powers. The combination of these economically important geographic factors distinguishes the region from other regions of the world.

Socially few other areas of the world enjoy the homogenity of the Middle East. A single language, Arabic, is spoken by a majority of the more than 200 million inhabitants, although there are differences between local dialects. And countries, like Turkey, Iran, Israel, and Afghanistan, which do not share Arabic, have a single language which most of the population speaks. Relative language homogenity is an important economic factor that the Middle East shares with no other poor region in the world. Even Latin America, apparently Spanish and Portuguese speaking, still has many tribal languages spoken by large proportions of the population.

The structure of Middle Eastern society both within and across national frontiers also shows remarkable similarity. Patrilineal family structure, tribal and village organization, land holding practices and urban class structure, while showing some variance, tend to be more similar than different for those social groups between Gibralta and the Khyber Pass. Most groups share common cultural and historical experiences based on Islamic and Ottoman influences.

Political factors have interacted with economic processes to contribute to the uniqueness of the Middle Eastern economic structure. First, since most of the countries in the area were part of the Ottoman Empire for periods extending up to 500 years, the political/administrative structure of those countries enjoyed substantial similarity when the Empire dissolved. Second, the post-Ottoman colonial experience of the countries was quite different than the more intensive experience of India or Senegal. Iraq, Syria, and Lebanon had a protectorate government which lasted only between the two world wars.

While in the eastern Arab countries some army officers went to St. Cloud and Sandhurst and the sons of the bourgeoisie to the LSE and the Sorbonne, a growing number of the future elite attended Ain Chems, American University of Beirut, or Aleppo College. Arabs of North Africa until recently have tended to go to France for Higher education. The effect of both the rigid educational specifications which success in the colonial administration and society required, and the role models provided by the massive number of expatriates from civil servants to taxi drivers which were the rule in many non-Middle Eastern colonies were much less strong in most of the Middle East. Algeria would be one of the exceptions. One could speculate that this colonial experience which was less intense than in other regions of the world might be reflected in how the Middle Easterners are beginning to deal with the issue of economic dependence on the rich countries, and the relative success they have had in organizing the oil producers compared to the attempts of other ex-colonial countries to organize their commodities. It could of course be wholly due to the leverage of a product with a high elasticity of demand low elasticity of substitution. The colonial experience should also affect the extent to which trade relations were quickly expanded beyond the original colonial partners.

Third, the Soviet-Western competition for influence in the areas encouraged sizable unearned transfers and concessionary loans for the area. Much of this foreign assitance contributed to escalating the arms race between Arab states as well as with Israel. While the Soviet-Western conflict dates to the 1920s, it was not until after the second world war that the United States organized the Central Treaty Organization (CENTO) to link the states from Turkey to Pakistan in common defense against the Soviet Union.

At the ideological level the Soviet-Western confrontation was reflected in domestic debate on economic models for development. For the first ten years

or so after 1945 a major political issue was whether a country should have a capitalistic or socialistic economy. By the time that Nasser, Kassem, and the Baath party had come to power the issue became whether or not Arab socialism was different, or could be different, from the socialism of the Communist countries. To oversimplify the debate, the right argued that the concept of private ownership of the means of production and distribution was compatible with Arab socialism, while the left argued that it was not. As the left gained ascendency over the right in some countries, they imported the Eastern European models of public control of production and centralized authority.

The issue of land management is an example of the effect of political ideology dictating the models in some countries and is also indicative of the diversity between the socialist countries avowing socialist objectives. Syria and Tunisia grouped small farms into state-managed enterprises, thus turning peasant farmers into wage laborers. In both countries, production suffered. Iraq and Egypt divided large farms among peasants and the landless. In Iraq the farmers were organized into state cooperatives that offered little freedom of action. In Egypt they were given more freedom and the state organized ancillary services. Over the decade of the 1960s Egyptian production and yields showed significant improvement compared to the Iraqi figures. Algeria, with a better historical awareness of both its own conditions and the experience of other Arab countries with the Polish and Yugoslav models, opted for a system of self-management of the ex-colonial farms. In these countries rigorous economic analysis of the local agricultural conditions were not carried out prior to the decisions. Urban politicians, often with military backgrounds, had little awareness of production and marketing problems in their own villages let alone in the socialist countries that were supplying the models for reform.

Economists' advice tended to be based on theory and thirdhand experience of the communist countries, rather than observation of collective models and study of local conditions. Thus, these early decisions on land management were the result of political ideology being applied to economic planning with little adjustment to local conditions.

The oil sector provides an example of the acceptance by these same socialist countries of the model of the foreign-owned capitalist firm. After the failure of the Iranian experience in the early 1950s to nationalize successfully the production and marketing of their oil, an experiment partially foiled by a successful coup aided by the CIA, the countries were unwilling to collar the goose that was laying the golden eggs. It took another 20 years of experience with the multinational corporations and the resulting increase in confidence for the countries to begin to exercise greater control over their most valuable resource.

The final economic factor of political significance is the oil reserves. Their protection for western consumers and shareholders was a major reason for the CENTO treaty of the cold war. The political status quo of these countries became of prime concern to the US government. When the first communist joined the Syrian cabinet in the middle 1950s, he got front page headlines not only in Damascus but also in Dublin and Dubuque. It is not a coincidence that the three countries in the world with the highest per capita aid levels for most of the 1950s and 1960s were all Middle Eastern: Israel, Jordan, and Tunisia. The other strategically important countries in the Middle East were either not far behind in aid transfers or had oil income. When economic arm twisting was insufficient, intervention was. It was either overt like landing the US Marines in Lebanon or covert like the CIA assisted coup in Iran or military espionage

in Syria. And finally, both the Soviet Union and the major western powers used the threat of withholding arms as one more weapon in their political arsenal for maintaining the status quo.

In the above discussion of social, political, and geographic characteristics of economic significance we have already included some of the economic characteristics that make the region different from others in the world, but they will be summarized here.

The export trade, for which the Levant has been known throughout recorded history, has affected the development of the coastal as well as the riverine areas in the eastern countries. Phoenician sailors provisioned Mediterranean cities. Iraqi farmers along the Euphrates began to export wheat to Europe after the opening of the Suez Canal. Commodities produced outside the area were either trans-shipped across the area or, like Argentine beef going to France, merely purchased en route by Lebanese insurers. And by the 1930s oil exports began their growth to present dominance. The export trade remains a major factor in economic growth for the oil countries.

Oil exports have produced a second important economic characteristic of the area. At least 5 major countries,and a larger number of small states, have a regular surplus on their domestic account and a positive balance of payments. Most of the surplus finds a home abroad in investments ranging from London gold certificates to Miami real estate. If organized, this second export could become a source of significant political and economic power.

A third characteristic relates to economic maturity. While oil states have a high per capita income, they have the economic structure of countries with much lower per capita incomes. A large proportion of the population is still in agriculture, and manufacturing provides a small contribution to value-added.

Part II: A VIEW OF PAST RESEARCH

What should be considered research? There are at least four main categories of studies which should be considered under this question. These include Ph.D. dissertations, consultant and other unpublished studies, United Nations and other studies by international agencies, and finally, books and articles. If we consider research to be the course of critical and scientific inquiry, we have a definition which would exclude some works from each of the categories since they are either uncritical or unscientific. If we refine the definition to exclude those works which do not significantly extend the frontiers of knowledge, the field for review becomes notably smaller. If we add the additional criterion of accessibility of the materials, all but the final category of books and articles are left for review.3/ This somewhat arbitrary process does an injustice to some good work. Because of the broader nature of this paper, the purpose is to give an impression of past research rather than a comprehensive review.4/

Historical, Country, and Macroeconomic Research

Research in this category either examines macro data from one point in time, cross-section analysis, or over a specific period, time-series analysis.

3/ Dissertations from U.S. universities are an exception since most of them can be readily obtained through University Microfilms, Ann Arbor, Michigan.

4/ The more comprehensive bibliographies which concentrate on economic sources include Issawi (1968), Bartsch and Bharier, and Landau. Economic Research Institute of the American University of Beirut, Middle East Journal, La Revue Bibliographique du Moyen Orient, School of Oriental and African Studies, and the Department of State. The Development Center of the OECD has reviewed the research institutes and programs of the area, and Berger has revealed the context of area studies. Dissertations on the Middle East have been collected by Selim. Development policy literature which is not region-specific has been reviewed by Healy. See recent issues of the Journal of Economic Literature for review articles on relevant theoretical and empirical topics.

Economic studies that concentrate on pre 20th century periods have required more historical skills in dealing with archival materials and languages than econometric skills. For a review of research on economic history, see Issawi (1968).

A distinction cannot be easily drawn between historical studies of the last 150 years and other macroeconomic work since the latter also provides historical insight. Macroeconomic work is often focused on quantified processes while historical studies frequently go beyond the numbers to analyze the major economic interrelationships as well as to examine the interaction with social and political factors rather than assuming their effects constant. There are two basic questions underlying all of this research: what is the composition of national income and why does the rate of growth of national income vary over time?

The quality of the country studies seems to vary with the size of the country's population: the best of the studies for the Middle East concern Algeria, Egypt, and Turkey while studies for the smaller countries are of lesser quality. Israel is the exception. Obviously the quality of the studies is mainly a function of the researchers' abilities, but the quality and quantity of data are also important. The macro work on Libya is not of the same rigor as on Egypt for the latter reason. Furthermore among the better studies the work on Egypt is often on a par with the best country studies from other areas of the world. This is due in part to the existence of time-series extending into the 19th century and in part to the caliber of economists who have been drawn to the country either because of its historical importance or through consulting on the early development plans. The collection of country studies by Cooper and Alexander presents a recent concise overview.

The econometric work occupies only a small part of the available materials. Some of the more interesting research has been done in the past five years. While there is not space to mention all of this work the research by Blitzec et. al. (Turkey), Evans (Israel), and Tintner and Farghali (Egypt) is representative of the quality and imagination. More routine modelling as part of plan preparations like input output matrices is often summarized in plans or detailed in unpublished papers. Some of the historical and macro studies also make econometric estimations. In Egypt the work of Hansen and Marzouk, Issawi (1963), Landis, O'Brian, and Owen are comparable in analytic rigor to the best country and macro research in Latin America or Asia. For Iran the publications of Amuzegar and Fekrat, Bharier, and Issawi (1971) are significant. For Algeria the research of both Amin and Tiano provide useful insight. The recent work by Pack challenging the idea that capital transfers are at the heart of Israeli expansion exemplifies the solid and imaginative work for Israel. For Turkey the research of Hershdag is exemplary of competent work.

Topical, Sectoral, and Microeconomics

While the theoretical separation of these subject areas is clear, the literature for the Middle East which is virtually all empirical does not enable us to draw the same clear distinctions. While most of the economic research on Middle Eastern topics falls within this category, the research efforts have been unevenly distributed within it. On the basis of the number of publications during the past 15 years, agriculture has had twice as much research as either industry or labor which are next in frequency. Other subjects like public finance, income distribution, education, or transport have received even less attention. Many of these topics are also covered in the country studies.

It is easy to criticize the work of the 1950s from the vantage point of 1973, and the better data, analytic techniques, and computing facilities. In industry, for example, the descriptive and critical works by Langely and Finnie are important. More recent and more rigorous industrial studies are those by Hirsch for Israel, Avramovic for Iran, and de Bernis for Algeria. The U.N.'s study of small scale industry is the first comprehensive piece on a crucial topic. The political implications and economic distortions caused by the multinational firms, both Arab and non-Arab, have been little studied. The work by Viralov and Tanzer are important exceptions.

While several of the above authors have dealt with oil questions, this topic requires separate discussion. The oil research also has implications ranging from the micro to the international and thus defies easy classification. Examples of the better, broader works include Schurr and Homan, Issawi and Yeganeh, and Kamal Sayegh. More rigorous analyses are found in the work of Adelman, Leeman, Meyer, Penrose, and Stauffer (19).

As development objectives have begun to shift from economic growth to employment and income distribution for a larger number of countries, the literature on labor as a factor of production increases in importance. While labor research traditionally focused on productivity, wages, and training, it has now broadened to include mobility (internal and external), trade unions, manpower planning, and social security. There is a growing awareness that, in contrast to rich countries, the blue collar and grey collar workers are an economic elite when compared to the large percentage of the population whose earnings are lower and less stable. Critical examinations of a range of labor problems are found in the research by Bartch, Nagi, and the U.A.R. Institute of

National Planning (1966). The work by Beling and Salah-Beye are examples of trade union research. The increasingly important topic of worker management has received little attention outside of Algeria and Israel. An example of this work for Algeria is Clegg's study, and for Israel the work by Schregle. More analysis of manpower within an industry needs to be done to complement the work by Badre and Siksek on oil and Simmons on shoes. Rural employment has received little attention, but two pieces of research raise many of the questions which need further work. They are the publications by Warriner (1970) and the U.A.R. Institute of National Planning (1968). The behavior of entrepreneurs, while ignored by recent economists, is central to the growth process. Yusif Sayegh's excellent research on the Lebanon raises important questions for future work. Finally we come to the question of labor mobility. While there is little on the economics of internal migration, Trebous examines emigration and related training questions.

Increasing agricultural yields have long been considered a crucial factor in growth and development of the Middle Eastern countries. And with the increased interest in spreading the effects of investment to the low income groups this objective has become even more important. Unlike the other sectors and topics, agricultural research and problems have been carefully reviewed by Taylor for the Eastern countries and Phillips for the Western. They concluded in 1966 and 1968 that, similar to other developing regions of the world, the main research has been of a descriptive rather than an analytic nature.

The Taylor and Phillips reviews isolate a number of priority policy issues and unanswered questions. These issues include water resource development, farm mechanization, land reform and consolidation, agricultural credit, planning and administration, and farm management including private and collective.

The major lacunae in the literature are farm management and farm level production function work, and modelling of the optimization of social welfare from the rural investment package. Exceptions to these lacunae are the farm management studies in Israel by Mundlak (1964b) and in Lebanon by Ward et. al. Robinson and Karpat have begun the exploration of the socioeconomic impact of mechanization at the village level. Gabriel and Klat have examined the inefficiency of scattered land holdings. While the little use of institutional agricultural credit is identified in the work of Sadaka, Loomis, and Taylor, further work needs to explore to what extent this is due to supply or demand factors. The effectiveness of agricultural planning and administrative mechanisms depend on tools ranging from supply and demand projection series comparable to the research by Asfour for Saudi Arabia, Palmer for Turkey, and Mundlak (1964a) for Israel, to the evaluation research by Gittinger and Simmons (1965 and 1971). Nomadic pastoralism and cattle raising received some interesting analysis by Malhouk, Stauffer, and Zghal but these studies only begin to explore important policy questions.

We have mentioned some of the better pieces of research on country studies, agriculture, industry,and labor to give the reader an impression of the state of the art. These topics include more than 80 percent of the published materials in the economics of the Middle East. Other topics that are important but we will not discuss include finance, income distribution, transport, construction, education, and health.

International and Interdisciplinary

International research includes regional integration, trade, aid, and multinational firms. Studies of the international trade in Middle Eastern goods and services are usually part of global studies for which the Middle East

is only one region. Examples include major exports like money, cotton, oil, and skilled manpower as well as the full range of imports. Both the country and oil studies mentioned above devote major efforts to these subjects. While some work has been published on regional integration, it has been mainly political in orientation and content. Significant rigorous work remains to be done.

Aid has received more attention, although some of the basic questions have not been carefully examined. These include the capacity of the countries and the sectors within them to absorb the aid, and the distortions that foreign aid may have caused, for example a contribution to a bias towards capital intensity or rural-urban migration. The work by el Naggar Amuyegah and Kayemian are examples of a comprehensive treatment for Egypt and Iran. Laufer has reviewed the impact of Israeli assistance on the African and Latin American countries.

Multinational corporations have received attention in the micro studies by Finnie and Meyer, but little work has been done on their impact within the wider context of an industry and the economy. To what extent do capital-intensive and foreign controlled firms work against the national objectives of employment creation and economic independence? Should agricultural land be sold or leased to produce cash crops for export while the landed peasantry becomes agricultural laborers? This is a high priority research topic.

Some economists might argue that to have ignored some of the above subjects and then used valuable space to discuss interdisciplinary work might well approach blasphemy. It is this author's contention that it is the purists who are in error. The problems of development do not respect the boundaries between disciplines. That the guidelines for the integration of the theories and tools of disciplines are so primitive is an important reason why our

understanding of development processes are often naive. The psychology of consumer behavior is still treated as a constant in the estimates of consumption functions. While interdisciplinary work has some support, mainly from Chicago inspired disciples, it has received much less effort, money, or journal space than is needed. The work of George Katona defined some of the issues.

Better economic and interdisciplinary research, for example, might help explain why some countries have had impressive rates of growth in national income, but little development measured by significantly improved incomes of the lowest income groups or social services available to that group. The addition of social class and behavioral variables would help explain why the sons and daughters of upper income groups tend to get more years of schooling than low income groups and why some farmers adopt innovations more rapidly than others. These questions are evidence of the need for joining social and political analysis to the economic and technical processes. Hinderink and Keray-belik suggest in their recent study of Turkish rural life that the more we learn about the political relationships between the rural elites and the peasants through the production and marketing relationships, the better we will understand why the poor remain poor. At the national level Cohn and Jacobs examine similar forces for Turkey and Iran. At the sectoral and firm level the work by Samir Khalaf explores important questions relative to industrial efficiency. Using different methods, Pierre Bourdieu has done similar work for Algeria.

Part III: FUTURE RESEARCH TOPICS

It is presumptuous to think that one individual could develop a definitive list of priority research subjects in economics. Assume there are two types of research, empirical and theoretical, and that they are not mutually

exclusive. Then empirical research can be divided into that which either (1) meets the immediate needs of decision makers or (2) researchers feel is important. Identifying the needs of the decision maker is a complicated process, and yet that crucial link must be made if economic research is going to improve its social utility. These qualifications should reassure the reader of the tentative nature of the results presented below.

In January 1972 a letter was sent to several economists eliciting their reactions to some research topics that might be prominent in the next ten years. Their replies were used as a basis for a draft questionnaire which was prepared in November 1972. This was then sent to a wider group for their comment. Their suggestions were incorporated into the final version of the questionnaire which is attached as Appendix 5. Copies were mailed to more than 70 economists and development specialists whose names were obtained from the list of MESA fellows, the Society for International Development, and contributors to the literature. Only 17 responded. Even discounting those questionnaires that may never have reached their destination, this was a disappointing though not unusual return. The replies of those who did take the trouble to fill them out are all the more valuable. The opinions of 17 are that many times more useful than the opinions of one.

The largest proportion of respondents was affiliated with institutions in North America and Europe, while 25 percent were in the Middle East. Sixty-five percent of the 17 gave a university affiliation, 24 percent government and 12 percent public or private firms.

Language competence was extensive. Fifty-eight percent said that they had ability in both Middle Eastern and European languages while only 36 percent did not have a research knowledge of a Middle Eastern language.

The respondents tended to receive their BA in Europe or the Middle East - only 12 percent had American BAs - and to obtain their higher degrees in the US (53 percent) and Europe (29 percent). See Appendix Table 1 for the data.

The questionnaire asked about areas in which the respondents had published, were presently doing research, or had done consulting work. While they are quite distinct activities, the responses to the questions were aggregated because their composite experience would be more important than any of the individual activities in suggesting research topics. The largest number of replies related to planning activities, and second was a category of general economics. Agricultural, oil, and finance were the next. At the bottom were transport and communications, business, health, education and construction. (See Appendix Table 2.)

The questionnaire asked for the respondents opinion about the economic literature. Several took this to include literature that dealt with other than the Middle East. It asked them to list "the best literature (books and articles) on the topics in which you have a research interest," and asked them to be as specific as possible. There was space for 3 topics and 3 references for each topic. Two of the 17 did not list any literature. Eleven listed references for only one topic, and 9 listed references for all three possibilities. It is likely that this question, which was on the first page of the questionnaire, discouraged many of the recipients from completing it.

The topics that received the most comments were planning and finance. Oil, agriculture, and trade were close behind. Topics least mentioned were transport and communications, construction,industry, econometric methods, and business.

Criteria for the selection of research topics

The respondents were asked to rank in order of importance 4 criteria that might be used in selecting research projects. The criteria included:

(1) Researchability: which included either (a) or (b) or both:

(a) Data exist or can be collected at a reasonable cost

(b) The models can be developed at reasonable cost

(2) Extend the frontiers of knowledge

(3) Satisfy policy needs

(4) Low opportunity costs of research project, i.e., under $15,000.

Respondents were also given an opportunity to suggest additional criteria, but none took the opportunity.

While the small number of respondents does not permit a strong generalization about preference for different criteria, some tendencies do emerge from Table 1 below. From the 'Total' column we see that "researchability" was considered to be most important by 7 of the respondents and least important by only 2. "Satisfy policy needs" had 6 votes for the most important criterion. Four respondents felt that "extending the frontiers of knowledge" was most important while 5 felt it was the least important criterion. Most felt that low cost research should not be a factor -n selecting research projects.

The figures in columns 1 and 2 suggest that the responses for individuals living in the region and those outside are consistent. A larger proportion of outsiders felt that the criterion of satisfying policy needs was more important than the insiders.

Table 1: RESEARCH CRITERIA AND THE ADDRESS OF RESPONDENT
(n responses)

		North America & Europe (1)	Middle East (2)	Total (3)
Researchability is:				
least important	(1)	2	0	0
↓	(2)	2	2	4
	(3)	2	0	2
most important	(4)	3	4	7
To extend frontiers of knowledge is:				
least important	(1)	3	2	5
↓	(2)	3	1	4
	(3)	2	1	3
most important	(4)	2	2	4
To satisfy policy needs is:				
least important	(1)	2	2	4
↓	(2)	2	0	2
	(3)	2	2	4
most important	(4)	4	2	6
Low opportunity costs of research are:				
least important	(1)	0	3	3
↓	(2)	4	1	5
	(3)	2	1	3
most important	(4)	1	1	2

Priority Topics for Economic Research

Given the nature of the questionnaire process, it would be quite easy to bias the results. To reduce this possibility as much as possible, a letter and then a draft of the questionnaire was sent out to get as wide a set of suggestions as possible. Furthermore, some bias would be introduced by the order in which the priority topics appeared in the questionnaire. Finally, we tried to get around the restrictions of a closed ended questionnaire by encouraging individuals to list additional subjects that they felt should have priority.5/

The results in Table 2 show that research on industrialization and trade should have highest priority for future research. Next in importance are the topics of education and manpower, urban migration, and the politics of economic decisions. Subjects that got the lowest priority included public health, village level studies, nomadic pastoralism, and the economics of small states. The reader should also see the suggestive subjects within each topic in Table 3. These subjects should not be considered as limiting the important sub-topics.

Respondents were asked to assign highest priority to no more than 3 topics, high priority to not more than 2 topics and low priority to not more than 2 topics. The rank order was determined by the greatest frequency of "highest" rankings. For example, the subject of industrialization got 8 votes whilst trade got 5. "None" category could be rank ordered between the low and high category. It is interesting to note that no topics received a large number of low priority rankings. Slightly different priorities emerge if the high and highest are summed, or if the low and none are summed.

5/ The additional subjects were mainly in the area of employment, economic history, and agriculture. These can be obtained by writing the author.

Table 2: PRIORITY TOPICS FOR RESEARCH
(n responses)

	Ranking				
	None (0)	Low (1)	High (2)	Highest (3)	Rank Order
Industrialization	5	0	3	8	1
Trade	7	2	3	5	2
Politics of Economic Decisions	9	2	2	3	3
Education and Manpower	12	1	1	3	3
Urban migration	9	2	2	3	3
Economic History	8	3	4	2	4
Oil and Mining	11	1	3	2	4
Intermediate Technology	10	1	4	2	4
Employment and Unemployment	11	1	3	2	4
Income Distribution	11	0	4	2	4
Public Finance	10	3	1	2	4
Economic Planning	9	3	1	2	4
Agriculture	9	2	3	1	5
The Institutional Management Factor	11	0	3	1	5
Development Objectives	11	1	2	1	5
Public Health	13	3	0	0	6
Village Level	12	3	1	0	6
Nomadic Pastoralism	13	2	0	0	6
The Economics of Small States	13	3	0	0	6

Table 3: SUB-TOPICS AS LISTED IN THE QUESTIONNAIRE

1. Economic History

   a) Role of institutions in economic development
   b) Comparative studies: e.g., Egypt/Iran, Algeria/Syria, Turkey/Iraq
   c) Long-run production functions: construction and labor input to discover past sources of growth and economy

2. Oil and Mining

   a) Development and growth prospects of oil economies
   b) Welfare impact of oil production
   c) Forward linkages for the hard minerals

3. Industrialization

   a) The economic impact of the multinational firms: oil, manufacturing, and finance
   b) The effects of industrialization on growth and development
   c) Backward and forward linkages of intermediate products
   d) The impact of economic integration on particular industries
   e) Specific industries: internal efficiency including management, labor, and organization
   f) Technological change: the factors constraining efficient industrialization

4. Intermediate Technology

   a) The research and development expenditures of governments and firms on technology
   b) The incentives and obstacles to regional industrial development
   c) Alternative production functions for labor absorption

5. Trade: International and Intra-regional

   a) The effects of protection
   b) Trade relations between Middle Eastern countries
   c) Administrative obstacles to improved trade
   e) The Arab common market

6. Education and Manpower

   a) Evaluation of the internal and external efficiency of educational expenditures in 1950s and 1960s
   b) The links between schooling and worker productivity
   c) Employment generation through investment in education
   d) The oversupply of secondary, technical, and university graduates
   e) The determination of the demand for critical skills: policy models

Table 3: (continued)

7. Employment and Unemployment

   a) Public works programs
   b) Investment alternatives to create jobs

8. Public Health

   a) Private and social rate of return to investment in family planning
   b) Cost-benefit estimates for alternative delivery systems

9. Urban Migration and Emigration

   a) Rural migrants in the service sector: are there gains in productivity?
   b) The economics of urbanization
   c) Optimum transport systems
   d) Social costs of interregional migration
   e) The costs and benefits of emigration

10. Agriculture

   a) The efficiency of small versus large farms
   b) Optimum research and delivery systems for agricultural information
   c) The backward and forward linkage effects of investment in alternative commodities
   d) The political constraints to increasing income and outputs of peasants and nomads

11. Village Level

   a) Optimal allocations at the village level
   b) Is there a common model?
   c) Political economy of village decisions
   d) Non-monetary cost-benefits to village life
   e) The economics of self-help

12. Nomadic Pastoralism

   a) Contribution to value added
   b) Interdependencies with farm and town
   c) Is there a common model?
   d) The economics of settlement
   e) Marketing efficiency under state and private control

13. The Institutional/Management Factor

   a) The effects of institutional reforms
   b) Management as the missing factor
   c) The economics of "institution building"

Table 3: (continued)

14. Politics of Economic Decisions

    a) Implementation at the local level
    b) Top down versus bottom up planning

15. The Economics of Small States

    a) What are the special problems?
    b) Is there a common model?

16. Income Distribution

    a) The fallacy of the trickle down effect from high rates of economic growth
    b) The contribution of investment in education
    c) The role of public finance mechanisms

17. Public Finance

    a) The impact of the Middle Eastern capital markets on Middle Eastern development
    b) The equity of present systems of taxation
    c) Foreign exchange as a constraint to development
    d) The impact of development banks

18. Development Objectives

    a) Westernization/industrialization reconsidered
    b) How are objectives established, and for whom?

19. Economic Planning

    a) Realistic tools and implementation
    b) Examples of bottom up planning

How do these results compare with the interests of the respondents? The most frequently mentioned areas of research and consulting from Table 1 were, in descending order of frequency, planning, general, agriculture, oil, and finance. The topics they picked for research in descending order were industrialization, trade, the politics of economic decisions, education and manpower, and urban migration. We may surmise that the respondents were not slaves to their experiences.

The major surprise was the lack of interest in the topics of income distribution, although no one gave it a low rating, and the three rural topics: agriculture, nomadic pastoralism, and village level. It is the rural poor who have missed the development benefits in most of the countries. Perhaps it is a reflection of the fact that of the 17 respondents only two were agricultural economists. Alternatively, perhaps it is a question of out of sight, out of mind for the city dwellers.

Analysis of Research Priorities

It was considered that this essay had three objectives:

(a) Setting standards for distinguishing new or problem solving contributions from routine continuations of established traditions.

(b) Directing new scholars towards a questioning of the received scholarly traditions.

(c) Recommending to funding agencies, both governmental and private, as well as centers and research institutes, what their priorities and criteria might be. These guidelines were provided by the MESA committee and repeated in the covering letter for the questionnaire.

(a) Setting the standards

It is clear from a review of past work and the available tools that the nature of the future economic research should be more analytic than in the past. This is not a criticism of past research because the descriptive studies form a useful foundation for more rigorous work. In future work the question why, rather than what, should dominate. Theories of causality should be tested. Analytic tools developed by economic theory during the past 100 years, and given quantitative shape in the past 20 years should be increasingly used in the Middle East as they have been in the other regions of the world.

Methods of model building and testing are taught in most university economics departments and should be applied in understanding the problems of the Middle East. Using these techniques would take the literature a quantum jump toward both the research frontiers and meeting policy needs. The danger is that models and hypotheses based on the economic processes in the rich countries will be tested without adaptation to the conditions of the poor. The responsibility for seeing that the research is well designed to meet either basic or policy research needs rests both with the funding agency and researcher, as well as the research and policy community in the Middle Eastern country. As obvious as this sounds, this process has been honored in the breech in the past. A mechanism for operationalizing this responsibility is suggested below.

In short, the standards exist for guiding future economic research. They range from neo-Marxian theory to Bayesian statistics. The major problem is deciding which methods are most applicable to increase our understanding of the question for research.

(b) Questioning of the scholarly tradition

This dimension of our view of the state of the art is mainly covered in the comments above on analytic work and the types suggested below. It should

be noted that imaginative application of the state of the art to the economic realities of different types of poverty and the extremes of resource endowment in the Middle East could substantially refine those western conceived theories.

(c) What the criteria and priorities should be

Based on the sample of respondents, the important criteria are those of policy orientation and researchability. Given the resources available and the nature of area studies, these would appear to be the logical criteria. Furthermore, if social science is going to have a social utility, then it is in the application of its knowledge to the problems of people.

Priority topics were suggested by the respondents and appear in Table 2. It is important to use this data in concordance with the sub-headings for each topic found in Table 3. Of course, a strong case could be made for working on the low priority topics if the research design met policy needs.

Personal Views

Several personal biases about future research might be shared with the reader.

(1) What are the implicit or explicit research objectives, and what should they be? Social science research has the twin objectives of the advance of knowledge and the advance of the welfare of people. While these two objectives are shared by the physical and health sciences, research for welfare occupies a less prestigious place in the hierarchy of social scientists. It occupies a smaller proportion of articles in the better journals and thus attracts fewer good students. In medicine and law the welfare dimensions of the research are a high priority. This may be a function of the relative immaturity of economics. To speed up the maturation process requires incentives

to assist welfare research and complement the criteria of journal editors and tenure committees. If development economics is going to continue to increase in legitimacy, it should increase the importance of the welfare objective in the research.

(2) If the research is going to focus on welfare questions, then the priorities have to arise from the problems of the people, both rich and poor, rather than be imposed on them by researchers who have often had little contact with those problems. In short, this essay could be seen as the blind leading the blind, researchers talking to one another about their best guesses as to the problems that need research. Some of the researchers may be right because they are close enough to some segments of the population, like villages, or unemployed or small businessmen, to understand the needs. Health research priorities are set in part by focusing on those diseases which kill the largest proportion of the population. Economic research could well focus on that population which is benefiting least from development efforts, and begin by surveying their needs as the poor see them. There has been sufficient rhetoric about bottom up planning. It is now time to push aside the easily accessible statistical tables and ascertain the facts from the villages and bidonvilles.

(3) What type of economic research should be encouraged about the region for the next ten years or so? What research would both heighten our understanding of the uniqueness and universality of Middle Eastern growth and development, and contribute to improving the field of development economics? First, even though the data have improved recently, the quality and extent of the data available for most countires in the region now, and for the future, are insufficient to use with most of the econometric techniques that graduate training teaches. Second, the type of hypotheses that many researchers are interested in testing do not even have data. Third, accurate macro analysis

and policy work require a much better understanding of micro phenomenon than we now have. As Henry Bruton has suggested: "The heart of the growth process is so easily shrouded by aggregation." (Bruton, v.) Given these three observations, micro research offers several advantages for improving both theoretical and policy knowledge. First, micro analysis facilitates using experimental techniques. Parameters can be changed and the effect more accurately understood than with cross-sectional or historical time-series data. Second, micro analyses permit the collection of data to test more elaborate models of economic behavior. No longer is it necessary to assume constant variables that significantly affect results. Psychological research provides measures useful for refining economic models. Agricultural and educational production functions are logical applications for these refinements.

(4) Returns to scale exist in research as in other production processes. They need to be encouraged by concentrating economic research on several countries of the area selected for their (a) representativeness of either the structure of area economies, e.g., oil or non-oil, small or large populations; or area economic problems; and (b) the nature of the research climate, e.g., the local research capacity and freedom of access to data. The second criterion is the limiting one. From preliminary investigations it would seem that only in Iran, Lebanon, Israel, Kuwait, and Tunisia does the research climate approach minimum standards. Research on special subjects would be an exception.

By concentrating efforts in several countries, insights quickly deepen as study builds upon previous study. As this pyramid of new knowledge mounts, additional scholars are attracted to it because of this foundation. The quality research which has resulted from the pyramid of analyses based on the Ottoman archives is analogous. It is difficult to make a case for repeating

similar research in each country. The economic structures and function will not vary that much. For example, several studies on educational and agricultural production functions should be sufficient to suggest patterns across countries.

Part IV: ISSUES RELATED TO FUTURE RESEARCH

Coincident in suggesting topics that should receive future priority are the related issues that require discussion. It is one thing to suggest research priorities and quite another to get the research done and then to assure that the results of policy research reach decision makers.

Should time and money be spent on a thorough review of the economic literature of the region on a topical or other basis? Researchers are already provided with sufficient bibliographical assistance (see Appendix 4) to locate references they need. And the better books, articles, and dissertations have made initial appraisals of sections of the literature. It would be useful for the several economic journals of the region to begin to publish abstracts with the articles. These abstracts could be later collected into an annotated bibliography and used by other retrieval systems.

Should there be an effort made to produce good country studies on all of the countries in the region? Assume that there are two types of country studies, those that mainly deal with the present and for certain questions go back not more than 20 years, and other country studies that cover longer time periods. The decision on this latter type of study should be left to the economic historians. The contemporary studies face a different problem. Because of the absence of sufficient data mentioned in the preceding section,[6/] it is

6/ The International Monetary Fund and the specialized agencies of the United Nations have regularly published macro data. The World Bank has decided to revive its policy of publishing country studies. For the Middle East, for example, studies on Tunisia and Iran are expected for publication in 1974 and 1975.

probably too early to expect that many good economists would be attracted to do country studies. Furthermore, if country studies are to be both broad in scope and as analytic as possible, they require considerable skill and judgment with a number of tools. Finally, most economists who are recent graduates of doctoral programs tend to be more interested in narrower topics than country studies, which may reflect a weakness in their training.7/ Thus, recent country studies would have a low priority. As much as this may limit our understanding of the functioning of the economy, this is probably the correct priority given the importance of other topics.

Why are there so few economists working on the Middle East compared to other regions in the world? The quality and quantity of economic research on sub-Saharan Africa, a region with about the same total population as the Middle East and North Africa is significantly higher than that of the Middle East. For North American scholars there has been more funding available for other regions of the world. That Arabic is so important in the economic affairs of the region compared to the importance of English in India or East Africa is another reason. The use of French economic publications in the Middle Eastern countries is as extensive as the use of English. Finally, and most important, is that the quality and quantity of data available for most of the countries in the region is inferior to the quality of the data and analytic studies available for countries like India and Mexico. It is in countries like these that economists turn to test their models.

If the data are so poor for some of the countries, is it worthwhile considering a program which would encourage the collection and organization of

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7/ See the publications of the Yale Growth Center which reflect a successful effort to have Ph.D. candidates write country studies.

data at both the country and regional levels? This topic is sufficiently important that it should be explored more carefully than can be done here. Several points should suffice. The quality and quantity of data is improving every year, but most of it does not get into the research libraries either in the concerned country or outside. "Published" data often appear in very limited editions and are soon out of print. The collection of unpublished data requires visiting the firms and government ministries, and if a researcher arrives a month too early or too late the limited edition is no longer available. A study in progress may be little known or copies unavailable. In fact, governments have even had to recommission studies either because the memories of their ministries are too short or their information systems so unorganized.

Because of the cost of organizing published and unpublished data, one cannot be optimistic that realistic solutions can be found that would significantly reduce the researchers time and expense spent locating data. Given this declaimer, there are several suggestions. First, a study should be commissioned to explore the many facets to the collection and use of such data. This would include a survey of the major North American and European collections of data. Second, representatives of these data collections, both multilateral agencies and universities, as well as economists with an interest in the region, should meet to discuss the results of the survey of the data. Duplication of effort should be reduced. Third, ways of collaboration should be explored that might include distributing the responsibility for collecting and cataloguing the data from one or two countries to a major university research center. As information retrieval systems become more efficient and less costly the data can be more efficiently stored and used than is now possible. But it first has to be collected.

A separate issue is posed by the storage of economic data on magnetic tape for computer reading. The type of data range from population and industrial census to sample survey data of consumers and firms. The census data, for example, have a significantly improved utility if they are available to social scientists on tape rather than in printed tables since the tape format permits the manipulation of the individual observations according to the needs of hypothesis testing rather than the usual demographic needs. Survey data are usually collected to test a limited number of hypotheses, but can often be reanalyzed to test other hypotheses or serve as background data in the preparation for other studies. That both survey and census data are not easily available to researchers is the greatest single waste of resources spent in the production of information. A major reason that the information is not more fully used or made available is that the individuals who are responsible for collecting it have neither an understanding of its value for reanalysis nor the responsibility for seeing that it is made more accessible. Another reason is the lack of an organization to make it available.[8/] Until economic data on the Middle East are better organized and made available to researchers, including non-economists, particularly survey and census data, graduate students and senior researchers will continue to look elsewhere to test their hypotheses. A major project to organize the economic data for Latin America is already underway.[9/]

8/ The Roper Center, Williamstown, Mass. and the Survey Research Center, Ann Arbor, Michigan, are examples of organizations which collect and distribute data tapes of American information.

9/ The Brookings Institution in collaboration with Latin American research centers started a major project for data collection and analysis several years ago.

Are incentives missing which are needed to improve the quality of research on the Middle East? A full answer to this question would require a survey of the state of economic research incentives in the other regions of the world. However, two pertinent observations can be made. First, at a time when research funds for universities are declining funding agencies have increased leverage with the funds that remain. Second, as agencies have concentrated their funding a limited number of centers for Middle Eastern studies in North America, it is consistent to consider trying to establish within certain of these centers a strong economics section. The importance of interaction with other development economists, predetermines that these centers should be established at universities that already have strong sections on development economics in their economics departments. Another incentive to improve the quality of research would be the establishment of collaborative relations with the economic research sections of universities in the region. A basic element in this program of collaboration would be an exchange of scholars and information. This exchange should include graduate students who tend to gravitate towards professors with secure sources of graduate research funds and these are not professors interested in the Middle East. Thus, the concentration of funding efforts, plus the establishment of strong collaborative relations with researchers and their institutions in the region are indicative of incentives which would improve the regional research.

Are the intellectual and social responsibilities of economists doing research on a developing country's regional topics any different from the responsibilities of researchers working on the developed countries or economic theory? This question has many ramifications, many of which have been explored elsewhere. Furthermore, it is a question, like religion, that has important personel dimensions. Several examples may illustrate the dilemmas concerning

intellectual and social responsibilities. A recent Arab Ph.D. whose thesis was on price theory is asked by the Planning Commission of an Arab country to study the efficiency of small farms. Does he neglect his interest in price theory and put all his energies into understanding farm efficiency? Or does he trade off one interest with the other in some proportion? What are his intellectual responsibilities? One could argue that his social responsibility lay with farm efficiency since his findings there could more immediately affect the welfare of the farmers as well as the consumers.

Researchers who live in the region more often feel the responsibility to engage in research with a social welfare impact than those living outside the region. Extremes in poverty, inequality, and misallocation confront them daily. Funds for doing research are usually tied to planning activities. There are also forces which tend to encourage researchers to work on topics that are in vogue in the developed countries, some of which may be more relevant than others for the developing countries. These forces include past training, criteria for publishing in the more prestigious journals, and the criteria for promotion and tenure. These distortions are the basis for the allegation of auto-colonialism levelled at some local researchers.

Researchers who live outside the region do not have the same sanctions as those who live inside. The absence of some sanctions may lead to abuses of research practices. These include the unauthorized use of data, the excessive amounts of time required of already overworked officials, and the failure to send copies of the finished work for either comment or cataloguing. Backed by funding beyond levels afforded by local researchers and by the reputations of prestigious institutions, foreigners often have access to data that are denied local researchers. These abuses form the basis for the valid charge of academic

imperialism that is levelled at visiting scholars. Unless foreign researchers become more aware of these abuses, they risk having the welcome mat removed.

What are the supply and demand conditions for researchers? The Middle East has not suffered from rapidly inflating costs of hiring economists that we see in some Latin American countries. If the cost of their services does increase due to demands for consulting, evaluation, and planning, then few, if any, will be available for research at present salaries. Also there is the wastage among economists who are trained in research techniques but who have received neither the additional funding nor apprentice possibilities to further develop their techniques. When they return from their Ph.D., they are given a full teaching load or a new five-year plan to write and there ends their research career. Some prefer it that way, but others, who are motivated and gifted for research work need an environment in which to work. Important attempts to provide this environment are being made at the Economic Research Institute at the American University of Beruit, the Institute of National Planning in Cairo, and the Center for Economic and Social Research at the University of Tunis. Either through government or private contracts, and direct budgetary support, researchers are provided with partial or full funding.

Could better coordination improve the quality and utility of future research? There are at least 3 basic problems. First, economic research in many of the countries has a modest reputation among policy makers either because its analytic level is low ("Aren't they stating the obvious?") or because the policy implications do not exist or not drawn. Second, researchers from foreign universities, mainly Ph.D. students, often do not have a clear idea of their topic when they arrive in the region, let alone a knowledge of who locally is working on what. They work quietly for 6 months to 2 years either disturbing as few people as possible,or bothering too many already harried officials, before

returning to their university. Furthermore, their topics may be more oriented to their professors' interests, or what would be attractive for the Ph.D. job market in the United States rather than the needs of the country. This is a major reason why some of the Ph.D. research seems either irrelevant or repetitive. Third, many organizations are also sponsoring research. In agriculture alone there are more than 50 for the Middle East. For these several reasons, there is a significant need for joint effort by the producers and consumers of economic research to first identify problems where research can make a contribution and then coordinate the required efforts. Because this coordination function is now lacking in most of the countries, a tremendous amount of research is done which does not reach the potential consumers. They then may repeat the same work.

One mechanism to facilitate the coordination might be a committee of research advisors attached to the office of the planning minister or prime minister. Members could be the representatives from the various ministries, universities, and the private sector. The committee would have two major objectives: to assist researchers in their search for relevant topics and other information, and to assess and publish the national research needs. These two functions should no longer be the sole responsibility, often by default, of foreign agencies and researchers. The committee could establish research priorities and guidelines to promote more efficient research, to avoid incidents which might jeopardize the research, to maintain a file of ongoing research projects, and to ensure that copies of the final product are distributed to the interested parties.

In the developed countries whose agencies fund much of the research on the Middle East, steps should be taken to fund the priorities as perceived

by researchers from the area. The Social Science Research Council, for example, has taken the important step of adding Middle Easterners to its review committees.

In conclusion it might be useful to suggest for discussion a strategy for improving the quality and quantity of research on the Middle East and North Africa. The major initiative has to come from the researchers and policy makers in the region. They are close to the problems, and some of the countries have not only the funding potential but also the research manpower. A first step in a research strategy would be to assess possible areas where research could assist decision making. Second, the talent available to do the work should be reviewed including researchers across national boundaries, and students in M.A. and doctoral programs. Third, opportunities for coordination and cooperation should be explored with interested agencies and universities both in and out of the region. And fourth, a mechanism should be established in the university and joined by members of the private and public sectors to assist in coordinating research efforts and to assure that the producers and consumers of research maintained a dialogue. If proper incentives for implementing the strategy could be developed, it could offer a low cost approach to improving the quality and quantity of research.

Table 1: Background Information
(n 17)

Address	n	%
(1) U.S.A. & Canada	10	58.0
(2) Europe	1	5.8
(3) Middle East & N. Africa	6	36.2
(4) Other	0	0.

Affiliation	n	%
(1) International Agency	0	0.
(2) Government	4	23.5
(3) University	11	64.7
(4) Firm (private or public)	2	11.7

B.A.	n	%
(1) Europe	8	47.0
(2) Middle East	7	41.3
(3) U.S.A.	2	11.7

Highest degree	n	%
(1) Europe	5	29.4
(2) Middle East	3	18.
(3) U.S.A.	9	53.

Languages	n	%
(1) Middle Eastern only	0	0
(2) Europeans only	6	36.2
(3) Both (1) & (2)	11	64.

Table 2: Respondents Interest: Subjects On Which Either Published, Consultant, or Presently Working

Subject	P,O,W	Total	%	Rank Order
(1) Planning	21	21	27.6	1
(2) General	11	11	14.4	2
(3) Agriculture	9	9	11.8	3
(4) Oil	7	7	9.2	4
(5) Finance & Banking	7	7	9.2	4
(6) Industry	6	6	7.2	5
(7) Economic Methods	4	4	5.2	6
(8) Labor	4	4	5.2	7
(9) Trade	3	3	3.9	8
(10) Education & Health	2	2	2.7	9
(11) Business	1	1	1.3	10
(12) Transport & Communication	0	0	0	11
(13) Construction	0	0	0	11
Total		76	100.	

Table 3: Opinions About Economic Literature

Subject	Topic A	Topic B	Topic C	Rank Order	Total	%
(1) Finance & Banking	2	2	2	1	6	17.1
(2) Planning	3	2	1	1	6	17.1
(3) Oil	3	2		2	5	14.0
(4) General	2		3	2	5	14.0
(5) Agriculture	1	1	1	3	3	8.5
(6) Trade	1		2	3	3	8.5
(7) Education & Health	1	1		4	2	5.7
(8) Labor		2		4	2	5.7
(9) Industry		1		5	1	2.8
(10) Economic Methods	1			5	1	2.8
(11) Business	1			5	1	2.8
(12) Transport & Communication				6	0	0.
(13) Construction	—	—	—	6	0	0.
Total	15	11	9		35	100.0

ANNEX 4
page 1

BIBLIOGRAPHY

Adelman, Morris A. The World Petroleum Market, (Baltimore: University Press, 1970).

Amin, S. L'economie du Maghreb. 2 vols. (Paris: Editions de Minuit, 1966).

Amuzegar, Jahangir. Technical Assistance in Theory and Practice: the Case of Iran.

Amuzegar, Jahangir and M. Ali Fekrat. Iran: Economic Development Under Dualistic Conditions. (Chicago: University of Chicago Press, 1971).

Arlis, J. P. "Manpower Mobilization and Economic Growth: An Assessment of Moroccan and Tunisian Experience," International Labor Review, Vol. 94, No. 1 (July 1966),p. 121.

Asfour, Edmund, Long term projections of Supply of and Demand for Agricultural Products, (Beirut: AUB, 1965).

Asfour, Edmund Y., Syria: Development and Monetary Policy, (Cambridge: Howard University Press, 1959).

Avramovic, D. "Industrialization of Iran: The Records, the Problems, and the Prospects," Tahqiqate Eqtesadi, Vol. 7, No. 18 (1970), pp.14-17.

Badre, Albert Y. and Simon G. Siksek. Manpower and Oil in Arab Countries. (Beirut: Economic Research Institute, American University of Beirut).

Bartch, William. "The Industrial Labor Force of Iran; Problems of Recruitment, Training, and Productivity," Middle East Journal, Vol. 25, No. 1 (1971). p. 1530.

Bartsck, William and Bhariek, Julian, The Economy of Iran 1940-1970: a Bibliography, Durham: University of Durham, 1971.

Beling, Willard A. Modernization and African Labor: A Tunisian Case Study. (New York: Praeger, 1965).

Berger, M. "Middle Eastern and North African Studies: Development and Needs", Middle East Studies Association Bulletin 1, No. 2, (N15'67) - -18.

Bharier, Julian. Economic Development in Iran, 1900-1970. (New York: Oxford University Press, 1971).

Blitzec, C. et.al. "A Dynamic Five-Sector Model for Turkey, 1967-1982," American Economic Review, Vol. 60, No. 2 (May 1970).

Bourdieu, Pierre. Travail et Travailleurs en Algerie (Paris: Mouton and Co., 1963).

Bruno, Michael, Economic Development Problems of Israel, 1970-1980, RM-5975-FF. Santa Monica, California: Rand Corporation, 1970, (88 p).

Bruton, Henz J. Principles of Development Economics, (Englewood Cliff, N.J. Prentice Hall, 1965).

Clawson, Marion, Hans H. Landsberg and Lyle T. Alexander, The Agricultural Potential of the Middle East, New York: American Elsevier Publ. Co, 1971. (332 p.)

Clegg, Ian. Workers Self-Management in Algeria. (New York: Monthly Review Press, 1972).

Cohn, Edwin J. Turkish Economic, Social and Political Change. (New York: Praeger, 1970).

Cook, M.A. ed. Studies in the Economic History of the Middle East: From the Rise of Islam to the Present Day. (New York: Oxford University Press, 1970).

Cooper and Alexander, eds. Economic Development and Population Growth in the Middle East, (New York: American Elsvier, 1972).

Chenery, Hollis, Duloy, John, Jolly, Richard, The Distribution of Growth: An Approach to Policy. (Washington, D. C.: World Bank drafts, 1973).

de Bernis, Destanne G. "Les Industries Industrialisantes et Les Options Algeriennes," Revue Tiers - Monde, Vol. 12, No. 47, (June 1971).

Department of State, Point Four: Near East and Africa. A Selected Bibliography of studies on economically underdeveloped countries. Ed by U.S. Library Division. New York: Greenwood Press, 1969, (136 p.)

Development Centre, Catalogue of Social and Economic Development Institutes and Programmes: Research, O.E.C.D. Publications 1968 (395 p.)

El-Naggar, Sa'id. Foreign Aid and the Economic Development of the United Arab Republic, Princeton, N. J.: Princeton University Press, 1965, (53 pp).

Evans, N. "An Econometric Model of the Israeli Economy, 1957-1965," Econometrics, Vol. 38, No. 5 (September 1970), p. 624-60.

Faterni, Ali Mohammed. Political Economy of the Middle East.

Finnie, David H. Desert Enterprise. (Cambridge, Mass.: Harvard University Press, 1958).

Foster, Philips W, Research on Agricultural Developments in North Africa, (New York: Agricultural Development Council, 1967).

Gabriel, Abbas, "Consolidation of Agricultural Holdings in Lebanon" (FAO Conference: Salahuddin, Iraq, 1955), CP-11-B.

Gittinger, J. P. "Planning and Agricultural Policy in Iran-Program Effects and Indirect Effects," Economic Development and Cultural Change 16, No. 1 (O'67) 107-18.

Hansen, Bent and Giris A. Marzouk. Development and Economic Policy in the U.A.R. (Egypt). (Amsterdam: North Holland Publishing Company, 1966).

Hershdag, Z.Y. Turkey: The Challenge of Growth (Leiden: Brill, 1968).

Hinderink, Jan and Keray-belik, Mubeccel. Social Stratification as an Obstacle to Development: A Study of Four Turkish Villages. (New York: Praeger, 1970).

Hirsch, Seev. The Export Performance of Six Manufacturing Industries: A Comparative Study of Denmark, Holland and Israel. (New York: Praeger, 1970).

Issawi, Charles, "Economic History of the Middle East to 1914," Bulletin: Middle East Studies Association, Vol. 2, No. 2, May 1968.

Issawi, Charles and Yeganeh, Economies of Middle Eastern Oil (New York: Praeger 1962).

Issawi, Charles. The Economic History of Iran 1800-1914. (Chicago: University of Chicago Press, 1971).

_____ Egypt in Revolution: An Economic Analysis. (New York: Oxford University Press, 1963).

Jacobs, Norman. Sociology of Development: Iran as an Asian Case Study. (New York: Praeger, 1966).

Karpart, Kemal, "Social Effects of Farm Mechanization in the Rest of Villages," Social Research, Vol. XXVII, No. 1, 1960, pp. 83-124.

Katona, George, The Psychological Analysis of Economic Behavior, (New York: McGraw Hill, 1951).

Kazemian, Gholam Ho., Impact of U.S. Technical Aid on the Rural Development of Iran, New York: Gaus, 1968, 129 p.

Khalaf, Nadim G. Economic Implications of the Size of Nations (Leiden: Brill, 1971).

Khalaf, Samir G. "Industrial Conflict in Lebanon," Human Organization, Vol. 24, No. 1 (Spring 1965), p. 25-33.

Klaf, Paul J., Muska Holdings and Land Fragmentation in Syria," Middle East Economic Papers, 1957, pp. 12-41.

Lanfer, Leopold, Israel and the Developing Countries: New Approaches to Cooperation, (New York: Twentieth Century Fund, 1967).

Landis, David S. Bankers and Pashas: International Finance and Economic Imperialism in Egypt. (New York: Harper and Row, 1969).

Leeman, Wayne, The Price of Middle Eastern Oil.

Lambton, A.K.S. The Persian Land Reform 1926-66, New York: Oxford Univ. Press, 1964. (366 p.)

Landau, Jacob M., "Israeli studies on the Middle East," Middle East Journal 19, No. 3, (1965), 354-62.

Langley, Kathleen, M., The Industrialization of Iraq, (Cambridge: Harvard University Press, 1961).

Malhouk, Adnan, "Recent Agricultural Development and Behavior Settlement in Syria," Middle East Journal, Vol. X, No. 2 1956, pp. 167-76.

Meyer, A. J. Middle Eastern Capitalism. (Cambridge, Mass: Harvard University Press, 1959).

Mundlak, Yair. Long Term Projects of Supply and Demand for Agricultural Products in Israel. (Jerusalem: Falk Project, 1964a).

_____. An Economic Analysis of Established Family Farms in Israel 1953-58 (Jerusalem: Falk Project, 1964b).

Nagi, Mostafa H. Labor Force and Employment in Egypt: A Demographic and Socioeconomic Analysis. (New York: Praeger, 1971).

O'Brian, Patrick. The Revolution in Egypt's Economic System: From Private Enterprise to Socialism.(London: Oxford University Press, 1966).

Owen, E.R.J. Cotton and the Egyptian Economy 1820-1914: A Study in Trade and Development.(London, Oxford University Press, 1969).

Pack, Howard. Structural Change and Economic Policy in Israel. (New Haven: Yale University Press, 1971).

Palmer, Edgar Z, Agriculture in Turkey: Long Term Projections of Supply and Demand (Belck, Istanbul: Roberts College, 1966).

Penrose, Edith. The Growth of Firms, Middle East Oil and Other Essays. (London: Frank Cass and Co. 1971).

La Revue bibliographique du Moyen Orient Nov. 1961.

Robinson, Richard, "Tractors in the Village: A Case Study in Turkey," Journal of Farm Economics, Vol. XXXIV, No. 4, 1952, pp. 451-62.

Sadaka, R, C. Loomis, D. Taylor, "A Study of the Problems of Obtaining Credit and Using it Productively on Some Farms with Northern Beqa'a," (Beirut: Faculty of Agricultural Sciences, AUB, 1966).

Salah-Beye, Anisse. "Trade Unions and Social Development in the Maghrel," International Labor Review, Vol. 94, No. 4 (October 1966).

Sayegh, Kamal S. Oil and Arab Regional Development. (New York: Praeger, 1968).

Sayegh, Yusif. Entrepreneurs of the Lebanon. (Cambridge: Harvard University Press).

School of Oriental and Africa Studies, University of London, A Cumulation of a Selected and Annotated Bibliography of Economic Literature on the Arab-Speadking Countries of the Middle East. 1938-1960.

Schregle, J. "Worker's Participation in Management," Industrial Relations, Vol. 9, No. 2 (February 1970), p. 117-23.

Schurr, Sam H. and Paul T. Homan. Middle Eastern Oil and the Western World. (New York: American Elsvier, 1971).

Selim, G. D., "American Doctoral Dissertations on the Arab World, 1883-1968", (Washington: Library of Congress, 1970).

Simmons, John "The Determinants of Earnings: A Socioeconomic Model," (Washington, D. C. The World Bank, 1973).

Simmons, John "Agricultural Development in Iraq", Planning and Management Failure." Middle East Journal 19, No. 2, p. 141.

Stauffer, Thomas, "The Economics of Nomadism", Middle East Journal.

Tanzer, Michael. The Political Economy of International Oil and the Underdeveloped Countries. (Boston: Beacon Press, 1969).

Taylor, Donald C, Research on Agricultural Development in Selected Middle Eastern Countries. (New York: Agricultural Development Council, 1968).

Tiano, A. "Le Maghreb entre les Mythes," L'Economie Nord-Africaine Depuis L'independence. (Paris: Presse Universitaires de France, 1967).

Tintner, G. and S. Farghali. "The Application of Stochastic Programming to the U.A.R. First Five Year Plan," Kylos, Vo. 20, No. 3 (1967).

Trebous, Madeleine. Migration and Development: The Case of Algeria: Manpower Requirements in Algeria and Vocational Training in Europe. (Paris: OECD Development Centre Studies, 1970).

Tuma, Elias H., "Agriculture and Economic Development in the Middle East." M.E.S.A. Bulletin Vol. 5, No. 3 (Oct. 1971) p. 1-20.

Tuma, Elias H, "Agrarian Reform and Urbanization in the Middle East," Middle East Journal, Vol. 24, No. 2, p. 163.

U.A.R. Institute of National Planning. Research Report on Employment Problems in Rural Areas U.A.R.: Report on Methodology, Field Work and Documentation. (Cairo: I.N.P, 1966), p. 258.

U.A.R. Institute of National Planning. Final Report on Employment in Rural Areas U.A.R.(Cairo: I.N.P., 1968).

U.N. Small Scale Industry in Arab Countries of the Middle East. (New York: United Nations Publication, 1970).

Ustunel, B. "Problems of Development Financing: The Turkish Case," Journal of Development Studies, Vol. 3, No. 2 (January 1967), pp. 130-154.

Viralov, A. G. "Foreign and National Capital in the Industry of Morocco," KSINA, 81 (1964), p. 106-22 (In Russian).

Ward, Gordon H. et. al. "Economic Analyses of the Production of Oranges and Bananas in Damour and South Lebanon," (Beirut: Faculty of Agricultural Sciences, AUB, 1965).

Warriner, Doreen, Land Reform in the Middle East, (Oxford: Oxford University Press).

Warriner, Doreen. "Employment and Income Aspects of Recent Agrarian Reforms in the Middle East." International Labor Review, Vol. 101, No. 6 (June 1970), pp. 705-626.

Wirty, Raanan and Avshalom Rokash, Agricultural Development: Planning and Implementation. An Israeli case study (Dordrecht, Reidel Publ Co., 1968).

Yenal, Oktay. Development of the Financial System.(London: Frank Cass and Co, 1967).

Zghal, Abdelkader. Modernization de l'agriculture et Populations Semi-nomades. (The Hague: Mouton and Co., 1967).