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THE REGION (ECWA RESOLUTION 119(X)):

ROLE OF THE JOINT VENTURES IN PROMOTING ECONOMIC  
CO-OPERATION AND INTEGRATION IN WESTERN ASIA

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## INTRODUCTION\*

One of the most interesting institutional developments in the world economy during the last decade has been the proliferation and rapid growth of multinational joint ventures of developing countries (DCMJVs). This report reviews the experience of inter-Arab multinational joint ventures (IAMJVs) from the perspective of evaluating their shortcomings as well as accomplishments. On the basis of this evaluation certain policy recommendations are given, with a view to helping IAMJVs better realize their potential advantages both with respect to the achievement of their economic development and regional co-operation objectives.

Among the advantages that are usually attributed to DCMJVs are their ability: (a) to reap economies of scale and scope; (b) to share risks and raise the allocative efficiency of investment; (c) to stimulate resource mobility and take advantage of resource complementarity; (d) to take advantage of more intimate knowledge of the region's consumers and their preferences than can be had by transnational corporations (TNCs); (e) to internalize the benefits of learning-by-doing; (f) to co-ordinate the expansion of productive capacities with market growth; (g) to facilitate the development of technology that is more appropriate for the conditions of developing countries; (h) to avoid any institutional limitations on the growth of firms that might arise in the case of family firms; (i) to reduce the cost of transactions among the relevant agents relative both to markets and to other types of firms; (j) to be more politically feasible than alternative forms of economic co-operation among countries of a given region; (k) to achieve food security and other secondary goals; and, (l) to create grass-roots pressures for other and higher forms of co-operation among countries of the region, thereby ensuring the long-run viability of regional co-operation, even in the face of upheavals in political relations among countries of the region.

Whereas most of the above expectations of the benefits of DCMJVs have been derived from studies of the experience in Asia and Latin America, the Arab experience has been virtually ignored in the literature on the subject. The virtual neglect of the Arab experience is surprising and unfortunate in view of the fact that in general IAMJVs seem to have proliferated to an even greater degree than have other DCMJVs. At the present time

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\* This paper is based on a study entitled "Inter-Arab Joint Ventures in Western Asia: an analysis of their actual and potential contributions to development and regional co-operation" (E/ECWA/DPD/84/12).

Arab joint ventures, including both purely inter-Arab multinational joint ventures (MJVs) and those Arab MJVs which also involve other parties, i.e. Arab international MJVs (AIMJVs), would appear to number approximately 1,000 and have assets of something like \$40 billion.

Despite the various problems that IAMJVs have experienced, it is precisely because IAMJVs would still seem to offer so very much potential as a means of bringing about a badly needed bottoms-up, grass-roots approach to economic development and economic co-operation in Western Asia that so much attention is given to learning as much as possible from their current shortcomings and experience.

#### I. DIFFERENCES BETWEEN INTER-ARAB AND DEVELOPING COUNTRY MULTINATIONAL JOINT VENTURES: SOME IMPLICATIONS

In comparison with DCMJVs in other regions, IAMJVs are: (a) less concentrated in manufacturing activities; (b) more concentrated in banking and financial services; (c) more of the holding-company form; (d) especially in terms of the share of capital more likely to be government-owned; (e) less likely to be majority-owned by the host country; (f) less likely to have adapted technology in the direction of smaller scale and greater labour intensity; (g) more likely to have engaged in agricultural activities; and (h) less able to take advantage of low cost labour and management.

Eventually, the opportunities for the relatively easy financial and service sector investments in Western Asia will diminish; indeed, there are already signs that such opportunities are rapidly drying up in several countries of the region. This will have the effect of making the industrial sector relatively more important in future IAMJV investments than it has been to date. Hence, eventually, the pattern of IAMJV investments is likely to resemble more closely those of the DCMJVs in Latin America and East Asia than has been the case to date.

So, too, the technological advantages and managerial experience factors of the more industrially experienced countries of the region will eventually begin to play a larger role in decisions to form IAMJVs than they have so far. The rapidity and degree to which these rather predictable changes will be accomplished among countries in Western Asia will depend, however, rather critically on the degree to which Western Asians are actively involved in management, technology choice, technological adaptation and transfer. The longer western Asians remain in the background as rather passive financial partners in "turn-key" projects in which foreign technicians, engineers and managers make the important decisions and take advantage of the learning-by-doing benefits of experience in investment and pro-

duction, the more these achievements are likely to be postponed to the future.

The more these processes of technological control, adaptation, design and management pass into elements of the population indigenous to the region the more likely it is that the individuals or groups receiving the learning and experience benefits will break off to form private ventures of their own. In the long run, therefore, a shift to a private sector orientation of IAMJV activity may be expected. This may also be expected to occur as the importance of oil revenues in the financing of investment declines. This process could also be accelerated by setting up financial institutions which would provide long-term credit on relatively favourable terms to private investors on a competitive basis.

## II. SOME ACHIEVEMENTS OF INTER-ARAB MULTINATIONAL JOINT VENTURES

As mentioned above, IAMJVs have grown in terms of both number and value of investments more rapidly than DCMJVs in other regions of developing countries. This, in itself, is a remarkable achievement. Both geographically and functionally, moreover, the scope of IAMJV investments and activities has also been most impressive. IAMJVs currently operate in all Arab countries and in virtually all sectors of economic activity. It should be noted also that IAMJVs of many different forms - bilateral, multilateral, private, public, and mixed - have been successfully initiated.

Some IAMJVs have been extremely successful in the achievement of at least some of their objectives. For example, many IAMJVs, especially those in the banking and insurance sectors, have been very profitable. Others, such as the Arab Shipbuilding and Repair Yard (ASRY) located in Bahrain, have received considerable recognition for the ambitiousness and effectiveness of their training programmes. The Arab Mining Company, headquartered in Amman, Jordan, can take pride in the fact that it has managed to undertake several important projects in the least developed Arab countries, such as Democratic Yemen, Yemen, Mauritania and the Sudan. The Arab Investment Company, headquartered in Riyadh, Saudi Arabia, can take credit for having generated enough project activity to justify the establishment of regional offices such as those in Jordan, Egypt, the Sudan and Tunisia. The Jordanian-Syrian Industrial Company has succeeded in accomplishing all stages in the development of several important industrial projects in a short period of time.

The various Organization of Arab Petroleum Exporting Countries (OAPEC) companies deserve considerable credit for their success in developing both the upstream and downstream activ-

ities from petroleum, thereby substantially decreasing the dependence and concentration of Arab oil exporting countries on crude oil exporting. The Arab Petroleum Investment Corporation (APICORP) has made very considerable progress in identifying petroleum-related investment opportunities and in developing a regional pool of consultancy services for such industries.

Some of the bank and investment company IAMJVs, such as the Arab Banking Corporation, and the Gulf International Bank, have established themselves among the giants of the industry in the world. Several have pioneered in bringing to the region new financial instruments, such as certificates of deposit (CDs) and syndicated loans, and providing the region with new services, such as credit cards, and interest-bearing demand deposits. Many have also demonstrated their ability to attract deposits from other parts of the world.

One IAMJV, the Inter-Arab Investment Guarantee Corporation, represents the first example of a company owned, managed and operated by developing countries for purposes of providing insurance against non-commercial risks on investments in developing countries on a multilateral basis. Moreover, it has managed to obtain the participation in the scheme of all Arab countries.

Several IAMJVs have managed to commence production of items that satisfy basic human needs. Examples would include: (a) the Arab Company for livestock Development (ACOLID) which has initiated dairy, sheep breeding and raising projects, poultry and aquaculture projects in a number of countries; (b) the Arab Company for Drug Industries and Medical Appliances (ACDIMA) which is producing various kinds of medicines for popular consumption; (c) the giant multinationally owned kenana sugar project engaged in all facets of the sugar industry in the Sudan; and (d) various IAMJV-financed housing projects in Egypt, Yemen, Jordan, Morocco and Tunisia.

Thanks in part to the serious, substantial and tangible measures taken by member countries of the Gulf Co-operation Council (GCC), namely, Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates, several IAMJVs in the Gulf, such as the Gulf Petrochemical Industries Company and the Gulf Aluminum Rolling Mill in Bahrain, have been formed so as to reduce the undesirable duplication of productive capacity in several key industries, such as aluminum and petrochemicals.

Numerous examples can also be given of success in other dimensions, such as in the ability to survive very substantial crises in political relations among countries of the region. Among the more prominent examples of this capability are: (a) the Jordanian-Syrian companies; (b) the Suez Mediterranean Pipeline (SUMED), owned in large part by various Arab Gulf

countries; (c) the Arab International Bank (with headquarters in Cairo and branches and activities in various other Arab countries and in which Libya has substantial holdings); and (d) the companies formed by the Federal Union of Arab Republics (Egypt, Libya and the Syrian Arab Republic), such as the Arab Union Reinsurance Company and the Arab Union Organization for Agricultural Development, both of which are located in the Syrian Arab Republic, all of which have managed to survive the Arab boycott of Egypt following Egypt's participation in the Camp David accords. The ability of the Federal Union of Arab Republics companies to survive and even prosper is particularly impressive since the Federal Arab Union itself has long since gone out of existence.

Another facet of success has been the development of several technologically sophisticated IAMJVs which were identified and studied (but to a lesser extent implemented) by the Arab Industrial Investment Company headquartered in Baghdad, Iraq, such as the compressor and electric motor projects in Jordan, the hand tool and foundry projects in Tunisia, and the electric fitting industry in Iraq.

In several important respects, therefore such as their ability to survive abrupt changes in the international political relations among countries, their ability to generate projects, and their ability to undertake relatively large and sophisticated projects, IAMJVs have been remarkably successful. In several other important respects, however, IAMJVs have been less successful than had been expected, especially with respect to commercial profitability, their ability to take advantage of economies of scale and scope, reduced transaction costs, learning-by-doing, and trade and exchange within the region, and to adapt technology to local conditions and satisfy the food security objectives of the countries of the region.

Some of the more fundamental explanations for shortcomings are: (a) misguided investment decisions (induced by excessive emphasis on strategic or prestige considerations as opposed to sound economic analysis, excessive haste in decision-making, insufficient consideration of sweeping effects through the economies of the region and the world of higher or lower oil prices, and insufficient dissemination of information about investment plans of other firms or countries; (b) insufficient insurance against non-commercial risks for host country investors; (c) excessive reliance on turn-key projects in which the potential for learning-by-doing is undermined; (d) inappropriate choice of managers; (e) insufficient separation between ownership and management functions; (f) the misguided imposition of restrictions on intraregional trade which have had the unfortunate effects of lowering the rate of return and frustrated the satisfaction of food security objectives; (g) excessive passivity and insufficient attention to project identification causing a severe

bottle-neck to arise at the level of project identification, pre-feasibility and feasibility studies; (h) excessive turnover of workers, managers and board members; and (i) departures from desirable principles of conduct of IAMJVs, such as the "voluntarism-in-participation" principle, and "flexibility to opt in and opt out" principle which have the effect of increasing the transaction costs involved in creating IAMJVs and in reaching important decisions.

### III. POLICY ISSUES AND RECOMMENDATIONS

On the basis of the various shortcomings in IAMJVs and the factors that seem to have been responsible for them, it is tempting to proceed directly to some policy recommendations. Some obvious examples of the recommendations implicit in the evaluation of the IAMJV experience would be normative propositions such as the following:

(a) IAMJVs should operate less like banks and more like productive enterprises.

(b) Managers should be chosen more on the basis of ability and experience and less on the basis of political or governmental orientation.

(c) Governments should live up to their commitments by: delivering promised social overhead capital investments on time; paying in their capital subscriptions on time; allowing IAMJVs to operate with less political interference; and avoiding unnecessary restrictions on the mobility of labour, capital, management and products within IAMJVs among countries of the region.

(d) The regional development and co-operation perspectives should be more strongly reflected in the decisions and operations of IAMJVs.

(e) IAMJVs should more successfully avoid unnecessary duplication of efforts both among each other and with respect to national enterprises.

(f) Regional organizations should continue to press for more uniform treatment of IAMJVs among countries of the region.

(g) The private sector should be allowed and encouraged to play a greater and more active role in IAMJVs.

(h) The financial resources, scope of insurance coverage and the speed of action of the Inter-Arab Investment Guarantee Corporation (IAIGC) in providing insurance against non-commercial risks to Arab investors should be increased.



(i) An Arab court for settling international disputes involving IAMJVs should be established.

(j) The articles of agreement of IAMJVs should not unnecessarily restrict and limit the flexibility of IAMJVs.

(k) More attention should be given both to the long-term profitability and to the careful study of projects than to the elimination of temporary bottlenecks or the achievement of vague social goals.

(l) Governments participating in IAMJVs should be more consistent and forthright in their policy towards IAMJVs by avoiding competitive investments in national companies in the same spheres of activity as IAMJVs.

(m) Because of the many advantages of IAMJVs and the relatively small portion of the region's resources that have gone into them, Arab countries and citizens should be more willing to invest in IAMJVs.

For the most part such recommendations are well-taken. Indeed, inasmuch as these recommendations (and others like them) have been made by several experts and organizations very close to the IAMJV experience there would seem to be strong support for them.

However, normative propositions such as these are unlikely to be sufficient, in and of themselves, for achieving significant improvements in IAMJV performance. First, such proposals are unlikely to be implemented simply by exhorting the relevant agents, be they individuals, firms, governments, or regional organizations, to undertake them. Rather, actions of this sort would seem likely only after the incentives appropriate for inducing them are established. Secondly, such recommendations unrealistically mask the complexity of the problems involved and the difficult trade-offs among different objectives that are implicit in such actions. Thirdly, such recommendations mistakenly imply that IAMJVs are necessarily desirable in and of themselves. In this way, they may tend to draw attention from the importance of good judgement both with respect to the kinds of activities in which IAMJVs should and should not be involved and with respect to internal means of improving IAMJV performance.

Therefore, rather than stopping at or even emphasizing such propositions, this section will first consider the limitations as well as advantages of IAMJVs in relation to other forms of economic organization, by emphasizing that, like other organizational forms, IAMJVs should be thought of as means of attaining given goals, not as ends in themselves. Moreover, they should

be thought of not as a pure form or organization but rather as a mixture of several different organizational forms.

Secondly, a number of important policy issues arising from the IAMJV experience are reviewed, one at a time. In each case, attention is given both to the benefits and costs of alternative means of dealing with these issues and to the necessary trade-offs among objectives that are implicit in each.

A. Benefits and costs of IAMJVs vis-a-vis other organizational forms

The experience with IAMJVs serves to underscore two points. First, it should demonstrate that IAMJVs are extremely heterogeneous in character. Secondly, it should indicate that not all IAMJVs are likely to be successful. As a result, it would be wise to conclude that IAMJVs are not cures for all economic maladies; there always exist alternative organizational forms; indeed in many cases the alternatives to MJVs are clearly superior. It is important, therefore, that the pros and cons of such alternatives should always be considered before recommending that an MJV be formed and, once formed, that it take a certain specific form.

There are basically three different types of economic organization: peer groups, hierarchies and markets. These pure forms can be defined as follows: (1) Peer groups are organizations in which the members collaborate with one another but with neither hierarchy in organization nor markets. Each member of the peer group is treated as being on an equal footing with any other member of the group. Peer group members work together co-operatively in achieving one or more joint products. (2) Hierarchies, however, are organizations in which members work together in the production of one or more joint products but are distinguished from peer groups in that persons at lower levels of the hierarchy are supervised and have their activities co-ordinated with one another by persons higher up in the hierarchy. (3) Finally, markets are institutions wherein different individuals or organizations exchange goods and services with one another. Sometimes the markets involve mutual exchanges, i.e. those of the barter type; otherwise, and more commonly, they involve separate one-way exchanges for money, i.e. goods and services are bought or sold for money, not for other goods and services directly.

Where do IAMJVs fit in? Like virtually any other real world form of organized productive activity, IAMJVs represents a mixture of all three pure forms. IAMJVs, like their developed country counterparts (TNCs), are likely to participate in the market, buying commodity factor inputs and selling one or more commodity outputs. So too, to the extent that there are several owners, all of whom are on roughly equal footing with one another.

er, who share assets, information and profits, they are like peer groups. However, to the extent that they have different divisions and also supervisory hierarchical layers within and between divisions, and are vertically integrated they are hierarchies. In general, it is the difficulties that markets and peer groups have in accomplishing the required amount of co-ordination and quality control at acceptable low levels of transaction costs that justifies the MJV form. In practice, therefore, IAMJVs are likely to be closer to the hierarchy pure form than to the market or peer group pure forms.

Each proposal to form a joint venture should be evaluated rather carefully from the point of view of the advantages and disadvantages of the hierarchy-oriented MJV form in relation to those of the other basic organizational forms. Only after such an evaluation can it be determined whether or not the MJV form is likely to be beneficial and, if so, the desirable mix of market, peer group and hierarchy in the MJV in that particular circumstance.

When there are economies of scale and scope, as in many manufacturing activities, the optimal size of organization might well be sufficiently large to make family enterprises impractical. Therefore, the peer group character of the organization is likely to be suppressed or at least supplemented by hierarchy in order to co-ordinate and supervise workers so as to reduce the amount of shirking and free riding to acceptable levels. Depending on the nature of the product, the character of its demand, the proximity of the market to the locus of production, and the difficulty of ensuring quality and timely delivery, the optimal form may involve more-or less participation in the market and, accordingly, fewer or more levels of vertical integration.

Among the economic conditions which stand out as relevant in explaining the relatively greater importance of IAMJVs in Western Asia are the economies of scale and scope, and the complexity of production technology which characterize the energy- and capital- intensive industries in which the oil-exporting countries have their comparative advantage. Clearly these characteristics tend to underscore the importance of hierarchy and markets. At the same time, however, the importance of ensuring sufficiently large markets makes it imperative that the enterprises pay serious attention to the problems of quality control, transaction costs, and incentives in deciding the optimal amount of vertical integration, and hence of hierarchy, relative to dependence on the market. Furthermore, the small size of national and even regional markets for many products make it important to take advantage of international markets wherever possible. The relative scarcity of technical and/or managerial personnel in western Asia as a whole makes it important that duplication of effort and unnecessary levels of hierarchy should

be scrupulously avoided wherever possible. Advantage should be taken of any economies of scale and scope and specialization in technical services whenever that is possible.

In summary, there is no sure and universal answer to the question of whether an IAMJV organization is desirable. It all depends on the circumstances. Even if the IAMJV organization should be found suitable, the appropriate mix of market, peer group and hierarchy in the IAMJV would necessarily depend on the specific circumstances. It is proposed, therefore, that the above-mentioned existing shortcomings of IAMJVs can be advantageously examined in the light of institutional considerations. Specifically, attention is given to institutional and other changes which would allow more of the advantages of IAMJVs to be realized with as little as possible of the disadvantages by adjusting the mix of market, peer group and hierarchy.

## B. Policy issues

In the absence of any cure-all, universal recommendations that are anything more than a set of objectives (like those listed above), what is proposed here is to discuss the pros and cons of different strategies for dealing with the problems confronting IAMJVs. It is hoped that an appreciation for the various trade-offs involved will assist the appropriate decision-makers to improve the future performance of IAMJVs by choosing strategies which will in the future yield better trade-offs among the various objectives. The reader is reminded of the fact that, since the most important IAMJVs have been those of the public sector, the issues raised here pertain primarily to public enterprise IAMJVs. Different issues would be relevant to private-sector IAMJVs.

### 1. Breadth of membership by country

The most important principle to be adopted with respect to the choice of countries for membership or participation is that such membership should be voluntary. Voluntarism is advisable because it reduces transaction costs.

Aside from that, the basic issue arising, with respect to breadth of membership by country is that of balancing what are, on the one hand, the risk-spreading, capital-accumulating and factor-endowment-complementing benefits of greater breadth, with the transaction costs-disadvantages of greater breadth of membership on the other hand. Frequently, the former tend to be overestimated relative to the latter. Naturally, however, the relative importance of these factors will vary from product to product and country to country, making it important to judge each specific case on its own merits.

For capital- and energy-intensive industries like petrochemicals, the risk-spreading and capital-accumulation benefits are likely to be more important than the factor-endowment-complementing effects of broader participation. These have to be balanced against the transaction-cost disadvantages. The point at which the marginal advantage of wider country participation would equal the marginal disadvantage of greater breadth is likely to coincide with the relatively complete coverage of the relevant countries. The six countries of the GCC, possibly supplemented by Iraq as in the seven-nation Gulf Organization for Industrial Consulting (GOIC), are likely to constitute the optimal grouping. In certain other cases, it might even be desirable to include some of the similar oil-exporting countries of North Africa such as Libya and Algeria. Indeed, this is close to the membership of the OAPC-sponsored IAMJVs.

In certain cases, such as those where the markets of such countries within the region are of insufficient size to support plants of the size required to take advantage of economies of scale and scope, and where markets are subject to excessively high transaction costs, more attention might well be given to the possibility of allowing for the participation in such joint ventures of companies that can provide the access to such markets. If co-operation with developed countries or their companies (INCs) should be deemed either infeasible or uneconomical, it would seem natural that attention in the choice of AIMJV partners should be directed to other developing countries or their MJVs. In order both to provide the consuming countries with the incentive that such products be profitably priced and to spread the risk among more countries, however, it would seem preferable that such countries buy their way in. This does not, of course, preclude the possibility that such countries could be granted the necessary credits to facilitate such participation.

The inclusion of consuming countries, however, should not be allowed to further complicate or mask the importance of ensuring the participation of the other potential producing countries. Universal participation of the potential producing countries is likely to be more difficult to achieve the greater is the competition among countries for attracting such industries. The transaction costs of obtaining agreements among such countries, therefore, are likely to be quite substantial.

In the case of labour- or skill-intensive industries it is the factor-endowment-complementing benefits of greater breadth that need to be weighted against the higher transaction costs of greater breadth. In those labour- or skill-intensive industries in which economies of scale and scope are not important, factor endowment complementarity can be accomplished either with the participation of relatively few countries or through the labour market. As a result, the optimal number of countries involved

could be reduced to two or three, basically one or more investing parties and a host consuming country.

## 2. Size of capital subscriptions

Once the optimal breadth of membership (by country) is determined, the next questions that arise are: "How large should the capital subscriptions be?" and "In what way (if any) should they be allowed to vary by participant?". Note that the voluntarism principle would suggest flexibility and hence variation in the amount of capital to be subscribed from party to party. However, what might be called the "business before politics" principle would suggest that, when different countries are involved, and especially in public sector-oriented IAMJVs, the risk associated with relatively large amounts of paid-in capital tends to induce more business-like and less politically motivated behaviour on the part of investors. This principle would commend relatively large minimal capital subscriptions among relatively few countries.

Another factor to be considered in selecting the size of capital subscriptions, and which would act to decrease the required amounts of capital for participation is that, by and large, and for at least the first several years of operation, IAMJVs have experienced very considerable under utilization of their subscribed capital and have made very little use of capital markets for raising capital. In most cases, moreover, the financial returns that such IAMJVs have been able to earn on their surplus capital have been extremely low. In order to earn higher rates of return, this has led many IAMJVs to establish their own finance departments or even separate financial enterprises. In this way, the layers of hierarchy and their associated transaction costs have been increased unnecessarily and the advantages of economies of scale, scope and specialization in finance that would arise if the market for finance, were relied upon more heavily have been unnecessarily sacrificed. Quite naturally, the result has been to put even more demands on the already scarce supply of skilled people than would otherwise have been the case.

Why have the required capital subscriptions been so high if in practice most IAMJVs have been unable to utilize such funds for several years? The explanation would seem to be due to imperfections in the capital market and the importance within the region of personal connections in gaining access to capital. As a result, project organizers seem to feel that their access to such finance is sufficiently uncertain that it is beneficial to seek large amounts when they can get them, rather than settling for smaller initial subscriptions but then having to go back repeatedly for additional subscriptions.

While not wishing to belittle the relevance and importance of the advantage of larger subscriptions of capital relative in the voluntarism and other advantages of smaller minimal levels of subscribed capital, two additional and unfortunate consequences of the underutilization of capital resulting from large subscriptions should be appreciated. First, the underutilization of capital has tended to insulate IAMJVs excessively from competitive rates of return on capital markets. If they were forced to raise more of their capital in capital markets, they would be forced to attach greater importance to earning higher rates of return so as to more than cover their borrowing costs. Secondly, by not having to go back for more investment funds, investors lose one of the major instruments at their disposal, the threat of withholding funds as a negative reward for poor performance and the provision of more funds as a reward for satisfactory performance.

Overall, therefore, in most cases it would seem desirable to initiate IAMJVs with somewhat smaller amounts of subscribed capital, thereby forcing IAMJVs to take greater advantage of capital markets both within and outside the region in satisfying their capital requirements, and to put more pressure on management to demonstrate profitable performance as the basis for attaining the additional subscriptions from their shareholders.

Another aspect of the size-of-subscription issue is variation among members. The voluntarism and factor-endowment-complementarity principles would seem to emphasize the desirability of flexibility and hence of variation from country to country in the subscribed amounts. Where IAMJV activities give rise to external benefits or costs that accrue primarily to the host country, it may be reasonable to allow or even require the host country to subscribe to a relatively high percentage of the capital. However, if externalities are unimportant and the host country is capital-scarce, a relatively small share of the subscribed capital for the host country may be justified.

### 3. Concentration of shareholding within countries

Implicit in the discussion of the previous section was the notion that only one or at most a few subscribers of capital are relevant or appropriate in any given participating country. This is what prompts the concern for access to key individual and justifies the single large subscription approach relative to the practice of smaller but repeated subscriptions. While this may have been the pattern to date where the subscribers have often been the governments themselves, this certainly need not be the situation in the future. Indeed, a strong case could be made that more of an effort should be given to broadening the ownership base in IAMJVs so as to encourage more firms and individuals to participate. The broadening of the base is highly

desirable as one of the primary means for providing grass-roots support for IAMJVs and the various other forms of regional co-operation. A necessary condition for being able to do so, however, is profitability.

4. Competition with national and private firms within the region

One of the main arguments for IAMJVs is their ability to take advantage of economies of scale and scope and of co-ordination between market and capacity expansion. The presumption is that these advantages of IAMJVs would preclude investments by private firms, and especially by participating governments, in the same kinds of economic activities as the IAMJVs and which would directly compete with them. The fact of the matter, however, has been that existing national firms and/or the potential threat of establishing national firms in competition with the IAMJVs have frequently made it difficult for IAMJVs to be formed. Even if formed, moreover, the existence of the IAMJVs has not prevented subsequent investments in national or private companies in the same lines of economic activity. Rather painful examples of the latter occurrences include: (a) the decision by Dubai to build its own dry dock and ship repair yard after the location of the DAPEC Arab Shipbuilding and Repair Yard (ASKY) project had already been decided in favour of Bahrain; and (b) the rapid build-up of national oil tanker fleets by countries participating in the Arab Maritime Petroleum Transport Company (AMPTC). This is certainly one of the most important problems facing IAMJVs. What strategies exist for dealing with it.

One such strategy is what might be called the "hardline" approach of explicitly prohibiting such competition as a condition of participation in the IAMJV. A notable example of this approach is the Arab Industrial Investment Company (AIIC).

Just how successful this strategy is likely to be remains to be seen. Certainly the presence of an explicit and clear prohibition of competition raises the cost to any potential violator. But this does not necessarily imply that it does so to such an extent as to entirely prevent competitive entries from appearing in member countries. Can such a prohibition really be enforced? By what procedure would the guilty parties be penalized? How would they be penalized? Do participating governments have the power to exclude private investments in the designated sectors? Forever? Even if the "hard line" approach might work for a company like the AIIC, whose participants are, thus far at least, governments, it is difficult to see how this approach could be applied to private sector IAMJVs or even to mixed (private-public) IAMJVs. Notably, the AIIC itself has decided not to rely solely on the prohibition of competitive entries.



A second strategy is to encourage mergers of national or private firms into the IAMJVs. One special version of this strategy is to build the IAMJV on the basis of an existing and relatively strong national enterprise. This strategy offers the advantages of making start-up immediate, reducing very considerably the requirements of skilled personnel, and taking maximum advantage of experience. A fairly successful example of this strategy is that of the United Arab Shipping Company established in 1975 in Kuwait by Bahrain, Iraq, Kuwait, Qatar, Saudi Arabia and the United Arab Emirates. This company was built upon the existing Kuwait Shipping Line which already had ships, offices, personnel and experience. Although the creation of this IAMJV has not prevented national lines from developing, the scale of such lines has been rather limited and there is considerable evidence that at least several of the participating countries continue to grant preferences to the company in carrying freight for the public sector. AIC is also practising a variant on this strategy by encouraging existing companies in competing or related fields to become shareholders in projects it establishes.

A third strategy is, of course, to avoid fields in which for technical or other reasons competition is likely and the potential for conflict among countries over the location of projects is likely to be keenest. Such a strategy, of course, can be more easily stated than applied. While it may be easy to determine the existence of competition, how can the potential for entry and competition be determined? OAPEC has identified several projects which were under discussion by OAPEC as regional projects at times at which competing national projects neither existed nor were being seriously considered. Subsequently, and as a direct result of OAPEC interest in the projects, the projects were undertaken by individual member countries as national projects, thereby undermining the viability of and hence pre-empting the development of the proposed regional project.

Three other factors that can help to discourage competition with IAMJVs on the part of national projects should be mentioned.

One such factor is operational success and especially profitability. If any IAMJV in a certain sector is unsuccessful and unprofitable but the industry or product line in which it is engaged is otherwise sufficiently attractive that other enterprises are attracted to enter and to compete, there is obviously little incentive for such an entrant to want to join or merge with the existing unsuccessful and unprofitable IAMJV. However, if the IAMJV is successful, there is likely to be more of an incentive to join with it, either by buying into it or in developing a separate joint venture relationship with it so as to

learn from its success and experience. The generation of profits in the IAMJV itself, moreover, gives it both the wherewithal to consider the expansion of its activities and the ability to buy its actual or potential competitors out. Hence, greater profitability on the part of a particular IAMJV, other things being equal, is likely to make it more likely that any given actual or potential entrant would buy into, be bought out by, or otherwise collaborate with the IAMJV.

A second factor tending to lessen the competition from national enterprises of countries participating in IAMJVs is continuity on the board of directors of such companies. It is primarily the board members who have the knowledge of both IAMJV projects and the potentially competitive projects within their own countries. Even if prohibitive clauses exist in their charters as in the AIIC case, the initiative for any action to enforce that prohibition or alternatively simply to discourage competitive entries from a particular participating country would almost have to come by way of that country's member(s) on the board of directors. Since the taking of such an action in his (her) home country is likely to impose some cost, be it economic, political or just psychic. The individual is more likely to be willing to pay that cost and to initiate the required action the greater is his (her) loyalty to the IAMJV. Loyalty is likely to be affected by continuity-in-service as well as by profitability and other demonstration of success by management. New members who may be unconvinced as to the quality of management and who may have little loyalty to the enterprise are much less likely to initiate any unpopular actions at home to defend the interest of the IAMJV.

A third factor is the exchange of shares. While the strategy mentioned above, like that of the AIIC, of encouraging existing firms to join as shareholders in the establishment of new projects is undoubtedly a useful one, the principle involved could well be applied also in situations where the project has already been established. Mergers of separate, already existing companies, however, may not be capable of being implemented unless there exist mechanism for exchanging shares.

##### 5. Breadth of scope of activity

The advantages of breadth of scope are: (a) that it may allow package deals to be worked out whereby different countries would concentrate in different lines of activity; (b) that, whether or not worked out in the form of a package deal, the different specialized activities could then be brought together within an overall vertically integrated structure; (c) that in this way inter-industry linkages and externalities could be internalized as much as possible; and (d) that breadth of scope implies diversification, which both reduces risk and is a desirable objective in itself.

basic alternatives or extremes, there are, of course, several intermediate possibilities. For example, the projects could be spun-off as subsidiary companies with their own management and organization, but with whole, majority or minority ownership retained by the parent company. Alternatively such projects could be spun-off as joint ventures with other existing or new enterprises. Moreover, the degree of spin-off or ownership participation could be varied over time, e.g. by retaining ownership and control for a time, but then, after interested owners and managers are identified, gradually relinquishing control and ownership.

Naturally, the appropriate policy is likely to vary with the circumstances. For example, in projects in which there are important external benefits and costs which are likely to accrue almost entirely to the host country, as in the case of many mining projects (because of the importance of both the governmentally supplied infrastructure to such projects and the project-supplied infrastructure and outputs to other projects in the country), a spin-off policy such as that practised by the Arab Mining Company would seem desirable. Nevertheless, to the extent that there are sizeable learning-by-doing benefits to be gained from project design, implementation and start-up activities, it might be desirable to delay spin-off until after the projects are implemented and operations are commenced. Another case in which spin-off may be desirable is in cases where there exist local resources capable of carrying out all aspects of the project, i.e. from engineering and design to management and marketing, so that capital, skilled labour and other resources from other countries of the region are unnecessary.

However, where the marketing problem would seem to be formidable as it is at present for many actual or potential IAMJV activities in Western Asia, and where the solution to the marketing problem would seem to lie in vertical integration among different plants in different locations, retention of at least a majority share in the ownership and hence of a critical minimum of indirect control over management of each stage or level in the integrated firm may be essential.

Considerable disappointment has been experienced as to how little in the way of the benefits of their experience, learning-by-doing and intercompany co-ordination could be derived once such companies had been spun-off, even if a sizeable (but minority) shareholding interest was retained by the parent company. Still another important factor favouring retention as opposed to spin-off is that retention may offer opportunities for saving, at least to some extent, on skilled management and project overhead. Spin-off initiates what is often a costly and time-consuming process of recruitment, organization and the search for office space.

However, the disadvantages of breadth of scope (and hence the advantages of narrowness of scope) in IAMJV activities would seem to be that breadth and diversification: (a) tend to reduce the possibilities for repetition and hence of enjoying the benefits of learning-by-doing; (b) prolong the heavy dependence of the region in general on extra-regional expertise in project identification, design, evaluation, management and technological development and hence on "turn-key" projects; (c) encourage a policy of engaging in activities primarily as a means of pre-empting entry by others, even though such investments may not be economical; (d) encourage investments in prestigious and technologically sophisticated activities which may not be well suited to the region; and (e) encourage investments in activities with limited markets in the region, the marketing of which then poses a serious problem for the IAMJVs involved.

Naturally, the importance of the problems associated with greater breadth of scope varies from case to case. For example, when the markets are in developed countries and can be entered successfully strictly on the basis of price competition as in the case of many minerals, and there are many commonalities in experience over a broad range of expertise as would seem to be the case in mining engineering, the broad scope of a company like the Arab Mining Company may be very desirable. However, there are certainly other situations, e.g. in which the national markets within the region are sufficiently large to take advantage of any scale economies, or scale economies are sufficiently unimportant, that the alternative strategy of concentrating on one rather specific activity, but then replicating plants designed to produce such commodities in several countries of the region, may be warranted. This is because it is in this way that the learning-by-doing benefits of IAMJV activity and the ability to adapt technology to local conditions may be maximized.

#### 6. Project implementation: spin-off versus ownership

Another important issue, and one which is frequently closely related to the preceding two issues, concerns the manner in which IAMJV projects are implemented. At present, there seems to be little rationale for the policies adopted. As a result, the policies vary widely not only between firms but even within firms from one project to another.

The basic alternatives would seem to be the following: (a) for the IAMJV to implement all projects developed by the company, i.e. to retain full control of such projects by retaining ownership and full authority for managing the project subsequent to the project's implementation; and (b) for the IAMJV to spin-off the project as a separate company with its own separate ownership, management and organization. In between these two

## 7. Training programmes

The training of persons indigenous to the region has frequent been an important objective of IAMJVs. At the same time, however, policies and practices with respect to training have sometimes given rise to disputes among investing countries and have acted as a heavy burden on the profitability of IAMJVs. If on-the-job training is beneficial, and Arabization of the labour force is desirable, as it would seem to be at least most of the time, it should be possible to develop a strategy for ensuring that the benefits of such training can be retained by the enterprises so as to compensate them more completely for the costs of such training.

One strategy is to make the signing of long-term employment contracts a condition for such training. In this way the enterprise should be able to retain workers for long enough to make their investments in training beneficial. Another approach, and perhaps one to be more seriously considered in the IAMJV context, is to introduce a greater degree of gradation in wages and salaries according to the quantity of on-the-job training and experience. In such a system, entry wages might well be considerably lower during training but then considerably higher after training, thereby offering the trained worker more of an inducement to remain in the organization which trained him rather than to move to a higher paying position in another enterprise which has not had to pay for the training.

If neither of these strategies should be found sufficient for making the training programme pay its own way, it is likely to imply either that the training programme needs to be redesigned so as to be more cost-effective or that it is not warranted in the first place. It could be that the salary structure that would result from such a restructuring would turn out to be somewhat less attractive to government civil servants, thereby causing less of a brain drain from governmental agencies. Perhaps it implies that starting salaries in IAMJVs are too high.

## 8. The potential for conflict between ownership and management: the role of management incentives

The potential for conflict between ownership and management is universal and perennial. It is an inevitable problem that arises from the economies of scale and of scope which give rise to the large size of modern industrial enterprises. In practice, however, there are methods for preventing such conflicts or at least of lowering their extent and magnitude to acceptable levels.

Among the most important such methods are the following: (a) retention by ownership of management functions; (b) denying job security to management and retaining management only on the

basis of good performance; and (c) providing good managers with ownership shares and salary incentives so that owners and managers share (at least partially) the same objective of profit maximization.

These different means of resolving or reducing ownership-management conflict are not always equally beneficial in terms of results and efficiency. Unfortunately, there would seem to be ample evidence that IAMJVs have tended to deal with the problem in the least beneficial way, namely by constraining the freedom of management to manage, and retaining substantial managerial powers for the owners (as represented by their board of directors). Quite frequently (and quite predictably) the result has been inflexibility, excessive delay in decision-making, lack of innovation and insufficient willingness to bear risk. This tendency has been further exacerbated by the fact that the owners of public-sector IAMJVs have for the most part been governments (as opposed to public enterprises). General assemblies of the owners have, as a result, almost invariably appointed boards of director from their own ranks (thereby representing their governments). The top managers, too, have often been recruited directly from government. Hence, the problem of separation between owners and managers has been resolved in the unfortunate way that governments and their representatives have played very large roles in management as well as in ownership.

There is little evidence that IAMJVs have gone very far in the use of the other methods for resolving such potential conflicts, i.e. through the use of incentives of various sorts.

Interviews carried out of the IAMJVs themselves, of government officials and of representatives of regional organizations have revealed several instances of doubt that the top managers were selected from government positions more because of their political connections, diplomatic experience and loyalty to the incumbent political leadership than because of their managerial ability. The large salary gap between such positions in IAMJVs relative to those in government exacerbates any such tendency, since the potential for eventual appointment at high IAMJV salaries can be considered as a reward to loyalty of service in government. The reciting of the several harmful effects of this practice is hardly likely to do much to correct it. One might suggest, however, that, were IAMJVs to give more emphasis to incentives in the remuneration of their managers, they might well tend to reduce this practice. For example, were they to lower managerial salaries to levels only equal to or even below those of experienced, high-level government officials, but then to supplement these with substantial incentives for profitable performance in the form of financial or stock bonuses, how many such government officials would accept such positions? One would expect a considerable reduction in the pressures exerted

by board members and governments to "push" the appointment of "loyal" government officials into such jobs. A major benefit of the greater use of incentive payments is that a very desirable cost-reducing self-selection process would tend to come into play, wherein those who would earnestly apply for such jobs would be those with the greater confidence in their ability to generate profits. Risk-averse civil servants and diplomats would not be likely to apply for such jobs.

With the use of appropriate incentives, there is no reason why owners should fear and unnecessarily limit the powers of managers. With flexibility, managers can be more innovative and faster to respond to changing market opportunities. If they are not able to generate profits or other tangible benefits within a reasonable period of time, they should be let go in favour of those who can. If no such managers can be found, the wisdom for undertaking the IAMJV in the first place should be questioned. With incentives in operation there is no reason for owners to guard their power over managers by infringing on their ability to act decisively and freely.

#### 9. Exchange of shares

Most IAMJVs have in their charters provisions that owners can sell their shares in the equity of these companies, at least under certain conditions (such as the approval of their boards of directors and in many cases when the sale is to nationals or enterprises of the same country). As desirable as the feature is, its operationalism is greatly restricted by the absence of capital markets in countries of the region or other institutional mechanisms whereby these equity shares can be traded.

Without a means of effecting the exchange of shares, IAMJVs will remain unable to realize one of their greatest potential advantages, namely their flexibility. Specifically, IAMJVs become much more attractive to investors if they make it relatively easy for them to invest in and disinvest from the enterprise.

Another important advantage of a capital market wherein IAMJV shares could be exchanged is that such a market would also offer the opportunity for new issues of shares to be floated. This would give the managers of successful IAMJVs greater assurance that they could raise capital directly without having to rely so heavily on the good graces of the members of their boards of directors with the highest officials in their governments. Since quite a few countries of the region already have stock exchanges and financial markets, the ability to market shares in IAMJVs, at least those shares belonging to nationals and sold to other nationals, would require little in the way of new instructions. All that would be required for such countries would be a willingness (translated into the appropriate law or

regulation where relevant) that nationally-owned shares in IAMJVs could be traded in such exchanges.

It might be highly desirable that, at least under certain conditions, the shares of IAMJVs belonging to other nationalities could also be traded since this would be much more easily accomplished than setting up special IAMJV stock exchanges in countries without any kind of securities market. Another advantage of third party participation in the exchange of IAMJV shares is that it would allow enterprises - either potentially competitive ones or complementary ones that are in different stages of a vertically- integrated industry - to buy into or sell out to IAMJVs.

What in the long is likely to be the most important reason for developing markets for IAMJV shares is that only in this way is a broader network of IAMJV supporters likely to be built up. Where shares markets exist, the ownership of shares usually trickles down to middle and working class citizens. Without such a mechanism, there is little reason to see how such groups are likely to be interested in pressing governments, regional organizations and so on to do whatever they feel is necessary to allow IAMJVs to prosper and grow.

Once again, it should be emphasized that all the effort in the world to provide an institutional mechanism wherein IAMJV shares could be exchanged would not be likely to be successful if the IAMJVs are not profitable.

Finally, it is important to stress that the development of a market for IAMJV shares need not be inimical to the existence of national planning. In Egypt, for example, the Planning Ministry must still grant permission to individual enterprises to make new investments before they can go to the shares market to raise the capital to finance such investments.

#### 10. Government intervention and location

The choice of location of a home office or production plant is one of the most important decisions that any enterprise can make. If this decision turns out to be a poor one, there may be little that can subsequently be done to correct the mistake or even to mitigate its harmful effects. It is also a decision over which there is likely to be very substantial political influence and lobbying effort by relevant interest groups.

In view of the importance of locational decisions to the subsequent profitability and performance of the enterprise, one can understand why from the perspective of the enterprise's financial health it would be desirable for the enterprise to be free to make its own decision about location, presumably on the basis of long-run profitability. At the same time, because the



vast majority of the benefits of the project (especially when profits are not large and therefore are not very important), such as employment, backward and forward linkages, learning-by-doing, balance of payments, are likely to accrue to the host country, it is understandable that investing partners have come to regard the granting of facilities by the host country, typically in the form of land and buildings, as a necessary condition for any project to go forward on an IAMJV basis. Unfortunately, this mechanism for generating positive investment decisions in IAMJV projects has had the effect that locational decisions have in many instance become entirely removed from the economic calculus.

If land comes free to the project in any case, the accepted project location may well be that with the most generous grant of land from the host country. As a result, the economizing function of prices with respect to location and land does not operate. This has contributed to the concentration of IAMJV economic activity, within countries, in capital cities and, among countries, within the more developed ones with the best infrastructure. The resource allocation function would be much better served were host countries to make an extra financial commitment to the other investing countries but then to require the project to purchase or rent the land and buildings required at regular (unsubsidized) prices or rental rates. In this way IAMJVs would be able to take into consideration in their locational decisions the different scarcity values or opportunity costs of alternative locations. Other things being equal, this would have the effect of providing certain financial incentives for locating in less developed regions within countries and less developed countries among countries.

The contribution of subsidized inputs by host countries to IAMJVs, however, is only one of many mechanisms whereby governments can affect the existence, location and profitability of IAMJVs. Since most IAMJVs enjoy exemptions from tariffs on imports and most kinds of taxes, at least for several years, the relevant factors are likely to be protection in the form of tariffs and quotas, labour policy, profit repatriation and other elements of the investment climate. An important consideration relating to the investment climate as it affects location and other factors is worth mentioning, namely the disequilibrating aspects. This is because there is nothing more favourable to the creation of a positive investment climate than the presence of transnationals and MJVs of various kinds. Success in attracting such firms helps to maintain a political economic environment favourable to a positive investment climate. Past failure in attracting such enterprises, however, sets a bad precedent, raises the risk of such investments by any potential new investor, and may also give rise to "sour grapes" attitudes on the part of officials and citizens of the host country, further contributing to an inhospitable environment. As noted above,

the distribution of IAMJV investments among countries of the region is unequal.

With respect to the distribution of benefits and costs of protection among host and investing partner countries, it may be said that the relative importance of the effects of protection is proportional to that of the host country's market in total production of the IAMJV. If the host country's market constitutes a significant part of the total demand for the IAMJV production, the higher market price resulting from the tax on imports (or tariff-equivalent in the case of quotas) should allow the IAMJV to operate more profitably, thereby benefitting the investing partners relative to the host country. Within the host country, the introduction of protective measures would redistribute benefits away from consumers to the IAMJV (and other local producers) and, in the case of any tariff revenues raised by the tariffs on any remaining imports, also to the host government. Hence, the granting of protection to the IAMJV by the host country government could constitute an inducement for location in that country that would substitute for the need to grant free land or special monetary transfers to the IAMJV partners.

Aside from these distributional effects, the trade-offs to be considered in an overall evaluation of the desirability of protective tariffs involve, on the one hand, the benefits arising from either: (a) any extra learning-by-doing benefits that would not accrue without the protection (presumably because of lower levels of IAMJV and regional production), or (b) any net external benefits of local production both to the host country and to its investing partners, e.g. through forward and backward linkages; and, on the other hand, the costs arising from either: (a) intermediate goods, (the increased prices of which are likely to discriminate against domestic using industries) or (b) consumer goods of basic necessity (the distributional effects may well be sufficiently important and undesirable), the granting of domestic protection to IAMJVs by the host country may well be socially undesirable. Quite frequently, the trade-offs of protection may take the form of greater profitability in the short run versus higher costs in the long run arising from the decreased incentives to be competitive internationally and hence slower rates of technological change and lower degrees of x-efficiency(1).

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(1) Without the pressure of competition, managers are unlikely to make (hard), unpopular - but - necessary decisions to fire in capable workers, to make them work harder, or to introduce unpopular work rules, etc. Such sources of inefficiency are generally referred to as losses in x-efficiency.

### C. Suggested new areas for inter-Arab multinational joint ventures

The purpose of this brief action is to call attention to some specific kinds of activities into which existing IAMJVs should move or alternatively for which new IAMJVs might be created. By calling attention to these new areas, it is not to be inferred that there are not also numerous additional possibilities for IAMJVs in agriculture, mining and the sectors of manufacturing and services in which IAMJVs have been dominant.

#### 1. Capital goods and engineering industries

Two of the biggest failures of existing IAMJVs have been the inability to take advantage of learning-by-doing and to modify technology so as to be more appropriate to the conditions of the developing countries in general and western Asia in particular. Several different reasons have already been given for these failures. An important reason for this failure is that IAMJV activities have been concentrated on the wrong areas, specifically in those with relatively low rates of learning-by-doing.

Because the capital goods industries have (a) very considerable potential for learning-by-doing and (b) relatively high elasticities of substitution in production, IAMJVs could take advantage of learning-by-doing to a much greater extent without going beyond the limits of the resources at their disposal by concentrating on the capital goods industries to a greater extent than they have to date.

The production of some capital goods, however, would require substantial inputs of skilled labour which may not be available in sufficient supply within the region. In order to compete with capital goods from developed countries, moreover, it would be necessary both to attract considerable new engineering talent and to provide credit in sufficient quantity to be able to compete with capital goods from developed countries which come with substantial amounts of suppliers' credit. Still another requirement for success in capital goods production within the region is the establishment of a strong repair, replacement and maintenance network. It is quite possible that the skill and managerial requirements to satisfy all these conditions simultaneously go beyond the resources available at present within the region. If so, it might be highly desirable to bring some of the successful producers of capital goods from the newly industrializing countries (NICs) into capital goods producing MJVs as in the IAMJVs.

It should also be pointed out that capital goods and engineering industries are prime examples of sectors in which the

Arab market is already of considerable importance in the world market, indicating the vast potential for increased regional production without having to become sufficiently experienced and competitive to compete in international markets. The Arab market in general and the Western Asian market in particular, moreover, have been growing at astonishingly high rates.

While the details as to precisely which capital goods should be initiated on an IAMJV basis, where they should be located, how large they should be and what technology should be utilized are matters that require further investigation. It is clear that industries which have high backward linkages to the mining sector should be located near the mines, e.g. in Saudi Arabia or other Gulf countries, whereas others with more forward linkages should be located near the market. Some of these products can be produced by either capital or labour-intensive techniques whereas others are associated with a single technology.

For these various industries to be competitive with capital goods produced in well-established firms in the industrialized countries, they must be able to provide maintenance and to supply spare parts to their customers in the region on short notice. This may require the creation of a relatively broad umbrella-type IAMJV so as to provide maintenance and to store spare parts throughout the region for a number of different capital goods producers. The umbrella firm might also provide export and other credits so as to help the individual commodity-producing IAMJVs to compete with the foreign companies which almost always have excellent maintenance and repair services and offer attractive packages of supplier's credit. One possibility that might be considered would be for the AIIC to perform this role as the umbrella organization with the individual lines of capital goods produced in firms that might be joint ventures between AIIC and other private or public-sector Arab partners or perhaps even foreign partners when it is deemed that the technological or other contributions of such partners can best be obtained through the equity participation of foreign firms. In most cases where this is deemed to be the case, the selection of experienced producers in other developing countries could well prove to be advantageous.

## 2. Other new areas for IAMJV activities

Closely associated with engineering and capital goods, the production of which requires plentiful quantities of industrial design services, additional candidates for new IAMJVs would seem to be engineering services, contracting and consultancy IAMJVs.

Traditionally these services have been supplied largely by foreign contractors and firms in the case of large and sophisti-

cated works or by small, family-oriented domestic firms in the case of small and relatively unsophisticated projects or activities. Another common characteristic of the way in which such services are supplied is by single-project collaboration between a relatively large domestic firm and one or more foreign companies. While flexibility of such arrangements can be advantageous in reducing the numbers of specializations that any single domestic firm needs to possess and hence also the manpower requirements of domestic firms, there are also rather obvious costs arising from the temporary nature of such arrangements. Joint ownership could well be advantageous in reducing the transaction costs of arriving at such arrangements, and in providing greater incentives both for the transfer of technology among partners and for improved efficiency and competitiveness. As a result, there would seem to be a great deal of scope for the transaction cost-reducing and efficiency-increasing effects of additional IAMJV activities in these sectors. It should be noted that the Latin American experience with MJVs of this sort has been very favourable. These engineering and other service sector MJVs have gone a long way towards reducing the dependence of such countries on foreign TNCs.

While long-run development objectives may justify the encouragement of public-sector centres of science and technology in which basic research is carried out, as far as applied research is concerned, it would seem advantageous to develop these research capabilities within a competitive private enterprise-oriented IAMJV framework. In this way, the incentives would be created for utilizing the available R and D (research and development) and other talents as efficiently as possible.

The protection and the granting of preferences to IAMJVs in these activities can probably be justified on the basis of the extremely high rate of learning-by-doing that takes place in such activities. In any case, the possible advantages of such IAMJVs need to be seriously investigated.

Other promising activities for IAMJVs are border zone development and natural resources development in instances in which the property rights to such resources do not belong to a single agent or even a country. In the former case, the fact that multiplier and other beneficial effects of such development by one country would spill out to other countries leads to a situation in which there is under-investment in such areas. Only by developing such areas on a joint basis as in an IAMJV between the countries sharing the common border or resources can this under-investment bias be overcome. Example of resources with incomplete property rights and similar "spillover" effect possibilities arise from the existence of underground oil fields or lakes or other bodies of water (with fishing or other resource development potential) that transcend political boundaries. In the latter case, the bias may be towards

overutilization, depletion and pollution rather than under-investment. Since there are many common borders and shared bodies of water and pools of petroleum, in principle there is great scope for IAJVs of these types. The practical importance of such, however, would need to be demonstrated in specific instances.

Finally, given the importance of encouraging MJVs to contribute more broadly to socio-economic development, some and indeed greater consideration should be given to extending MJVs into activities that contribute directly or indirectly to the satisfaction of basic needs. Possible candidates might be food-processing industries (where MJVs may offer distinct advantages with regard to homogeneity of style, taste and product standards, seasonal and product complementarity, in addition to the usual advantages of pooling resources, internalizing the benefits of experience and technological transfer, etc.), clothing and apparel industries producing goods specially tailored to local needs, and prefabricated housing, trailers, houseboats and the like that can help to alleviate the serious housing shortages that have arisen from the combination of rapid population growth and the accumulated effects of insufficient investments in housing in the past. Some such activities might well become competitive with the national enterprises of participating countries. In the long run, however, such competition will be highly beneficial.

#### D. Other recommendations

1. Proposals for joint ventures should be evaluated more thoroughly and from a more economic perspective than has generally been the case to date, requiring for acceptance a more explicit demonstration that the MJV form is more desirable than other possible forms of economic organization.
2. Decisions about the breadth of membership and participation by country should be made only after a careful balancing of the benefits of greater breadth in terms of risk-spreading, capital accumulation, and factor endowment complementarity with the transaction cost disadvantages.
3. In view of the general underutilization of the subscribed capital, the required size of initial capital subscriptions should be decreased.
4. Efforts should be made to develop markets or other means of exchanging shares in IAJVs. Not only would this provide for a broadening of the ownership base, but also it would allow liquidity preferences to be satisfied more easily, and raise the overall rate of investments.

5. In order to take the fullest possible advantage of experience and know-how, wherever possible IAMJVs should incorporate successful existing enterprises and should adapt suitable strategies for discouraging wasteful competition from national enterprises in the same lines of economic activity.
6. Salary structures of trainees should be redesigned so as to encourage more trainees to be retained; similarly salary structures of officials should be redesigned so as to provide a lower flat salary but more and larger bonuses for more than satisfactory and outstanding performance.
7. Although it is easy to understand why there exist multiple objectives, especially in public-enterprise MJVs, notably in the context of IAMJVs more emphasis should be placed on the objective of commercial profitability in order to facilitate evaluations, to stimulate the further growth of IAMJVs and to facilitate the development of a capital market or other means of exchanging shares in IAMJVs.