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Development Policy

PRC - Employment Creation, Small Entrp. Dev.

1976 (April - Nov.)

W[illegible]D BANK / INTERNATIONAL FINANCE CORPO[illegible]ON

OFFICE MEMORANDUM

TO: Mr. David Gordon, Director, DFCD

DATE: November 5, 1976

FROM: Ian Little and Mark Leiserson, ECD

SUBJECT: Comments on Draft Paper on Employment and Small Enterprise Development

1. At the Staff Level Review of an earlier draft of this paper one of the principal criticisms made was the unsatisfactory manner in which direct employment creation was emphasized as providing the primary rationale for the promotion of small enterprise development. Although this draft is improved in this respect it is still marked by some confusion deriving from a failure to establish a clear perspective of the way in which employment considerations enter into the central issue of the allocation of investment resources between and among large and small enterprises. The introduction to the paper makes the clear statement that the crux of the employment problem in LDC's is the expansion of real demand for lesser skilled labor relative to supply, in order to achieve an increase in real wages and labor incomes. Despite this, however, there recurs a frequent emphasis on the objective of "job creation" in the allocation of investment with no recognition that policies focused on such an objective may in fact conflict with efforts to raise the real earnings of the poor, now and in the future. The addition of the qualifying adjectives "productive" or "remunerative" to the employment objective is of little help since it tends to empty the employment criterion of operational meaning (how productive must the employment be?) and evades the relevant questions of how investment should be allocated.

2. The paper at the outset and subsequently at various places throughout the text invokes a "labor absorption" model of development and poverty reduction. From this is derived the objective of raising labor intensity, and the inference that since small scale enterprises are more labor intensive than large scale enterprises there should be more lending to small scale enterprises. Unfortunately, the non-sequitur in this line of argument makes it a poor foundation for the policy and program recommendations of the paper. The general averages relied upon do not show that, for given products, SSE is more labor intensive. One can think of many cases where larger scale activities might well save capital without reducing labor per unit of output--e.g., large vs. small shirt makers. More lending for SSE's may in many cases tend to reduce their labor intensity, rather than enable them to expand either into new markets (exports) or to get a larger share of the markets at the expense of more capital intensive operators. It perhaps needs stressing that to determine which are the most promising areas for labor-intensive small-scale enterprise expansion requires much more research.

3. Moreover, the "labor absorption" model is too crude as a framework for guidelines on sectoral allocation of investment resources. In particular it obscures the central issue of the relation between present and future, between short-term and longer-term employment and income opportunities. In so doing it tends toward an emphasis on "labor intensity" as a separate investment criteria which is inconsistent with the general framework of economic and project analysis being developed in the Bank.

This point has also been repeatedly made in connection with the capital/labor ratio guideline proposed by the Urban Project Department. It is to be noted that this paper appears implicitly to propose the proportion of SSE in DFC lending as a measure of their poverty performance. This would be an even more remote and unreliable measure of 'poverty-linkage' than the former. The paper does not address itself at all to the problem of how DFCs and other intermediaries can be taught and induced to find sub-projects which have high social yields (often but by no means always because they are labor intensive). One would have thought that some discussion of this central issue should precede a recommendation of greatly increased lending to DFCs. In particular, the suggestion that DFCs should extend lending to SSEs at the same usually subsidized rate of interest as applied to large firms, would hinder rather than promote the search for labor intensity.

4. The paper does offer another, more convincing argument for support of SSEs in pointing to the institutional and market bias against SSEs. (One should note, however, that in South Korea and Taiwan these biases seem to be as strong as anywhere and little has been done to counteract them---far more has been done in India. Small businesses have, nevertheless, mushroomed and grown fast despite high curb-market lending rates and little institutional support.) The paper does not address in any major way the problems of removing such biases. The main thrust is to try to give small business as much access to subsidized credit as large business: this is hardly removing bias, but simply altering the dividing line between the advantaged and disadvantaged, quite possibly worsening the position of the latter. No mention is made of possible undesirable effects, such as a reduction of savings or the actual harm that added support through DFCs for small scale industry might inflict on really small enterprises which are not reachable by this particular "delivery system." Admittedly, the paper makes some suggestions concerning new institutional approaches to the very small--but it must be recognized that these would be small, tentative, and highly uncertain with regard to their success. Rather different detailed recommendations might arise if the central questions the paper sought to answer were how to improve capital markets, what role the DFCs should play in such reforms, and what favorable effects for capital spreading, and efficiency, might result.

5. In summary, while we are on balance in agreement with increased support by the Bank of small scale enterprises, we feel the case could have been made better, and that more caveats are appropriate. More attention could have been given to the problems of developing operational criteria which the DFCs could employ to improve their lending performance in this area. And, finally, the paper could perhaps, have reflected more strongly the extent of our ignorance about the kinds of small enterprise activity it is desirable to promote. It is obviously not possible to consider major revisions in the paper at this late stage if it were

agreed that they might be desirable. However, we think the paper would be improved by judicious cutting and occasional rephrasing to reflect some of the concerns expressed above. We are returning a marked copy of the draft indicating the minimal changes we would urge upon you.

cc: Messrs. Chenery
Karaosmanoglu
Alter
Avramovic
Jaycox
Anderson, D.
Thadani

Messrs. Streeten
Chanmugam
Rowat
Hasan
Renger
Mrs. Sekse
Mr. Hidalgo

IMDL/ML:ao

WORLD NK / INTERNATIONAL FINANCE CORPORATIC

OFFICE MEMORANDUM

TO: Mr. Warren C. Baum
Through J. Chanmugam, Acting Director, DFCD

DATE: December 3, 1976

FROM: Gary L. Hyde, DFCD

SUBJECT: PPPR Questions Concerning the Role of SSE

1. This note conveys quick responses to the six questions raised in Mr. Chenick's November 29 memorandum to Mr. McNamara.

2. The first point is correct, in that the SSE paper makes no attempt to specify country-by-country expansion limits beyond which overall factor efficiency losses would occur. The degree and rapidity of SSE expansion likely to occur as a result of increased World Bank involvement is not so great as to create anxiety over reaching such limits during the next several years.

3. The second point is also correct, as stated in para. 1.07 of the paper's Introduction. We cannot at this time produce a list of specific activities which should be supported in each of the borrowing member countries. With the Bank placing greater emphasis on more and better industrial sector work, however, it should be possible to generate broad country guidelines fairly soon--and then to expand and refine them over a longer time period.

4. The third point is also acknowledged in para. 3 of the Summary and para. 1.06 of the Introduction, but which state that small firms tend to produce goods and services that are physically and/or qualitatively different from those produced by large firms. It is admittedly difficult to obtain reliable data for one-on-one enterprise comparisons, isolating scale effects, etc., but the fact is that such exercises may not be very helpful for the purpose of making general small/large comparisons.

5. The fourth point is not addressed in the paper, but as a generalization it does not seem very likely. Most manufacturing SSEs in the developing countries produce goods that are simpler, less sophisticated, than those produced by large firms. Their transformation of inputs into outputs often involves only a few physical steps, whereas large firms may go through many stages to create a unit of final output. The goods-in-process component of permanent working capital is therefore likely to be low, relative to that of large firms. Most observers also come away impressed with the frugality--albeit forced by circumstances--of small business in terms of raw material stocks and final goods inventories.

6. The fifth point is misdirected, since the paper does not call for the replacement of benefit/cost analysis by a labor-intensity criterion. If a labor-intensive SSE venture does not pass muster in terms of the usual financial and economic measures of merit, it shouldn't be financed.

7. The sixth point is technically valid but limited in practical content. A notable characteristic of most small firms is their payment of low wage rates, and if they were forced tomorrow to pay the same rates as large firms (leaving aside the fact that SSE labor is often not on a par, qualitatively, with that employed in large firms) there would probably be a rash of business failures. But since such factor-price equalization is not likely to

occur in the foreseeable future, one should take advantage of the fact that millions of desperate persons will leap at the chance to work, even for wages that are paltry relative to those earned by organized labor elites. The possibility of improved SSE access to credit leading to greater capital intensity rather than to expanded employment exists, of course, but if shifting of this sort were to take place on an unacceptable scale it would show up clearly and quickly in subproject documentation. We would expect the typical case to involve <u>both</u> employment expansion and some capital deepening, and even if the incremental additions to capital were to exceed those to labor--thereby increasing an enterprise's capital intensity relative to labor--the SSE firm would still be likely to be more labor-intensive than larger firms!

8. All these points were raised in a meeting with DPS on November 19 (the cleared minute is attached for reference), and considered by Mr. Gordon, the principal author of the SSE paper. His conclusion, and mine, was that the best way for the Bank to become truly knowledgeable about small enterprises is to move ahead with an active program of operations. Research can be done as we go along. I am sure that Mr. Gordon would recommend a PRC meeting at the earliest possible date (see para. 4 of the attachment). To the extent that DPS has further questions they can channel them through Mr. Chenery in that forum. We would expect DPS to move promptly to formulate research proposals in the subject areas of concern, should the PRC accept the report's action recommendations.

Attachment: November 19 memorandum

cc: Mr. David Gordon, o/r

-GLH/adh

OFFICE MEMORANDUM

TO: Mr. David L. Gordon, Director, DFCD

DATE: November 19, 1976

FROM: Gary L. Hyde, Economic Adviser

SUBJECT: Meeting with Messrs. Burki and Laursen (EPR)

1. We met late yesterday afternoon with Messrs. Burki and Laursen to discuss their draft memorandum concerning the SSE paper (said memo to be sent by Mr. Haq to Mr. McNamara).

2. It is their considered view that the paper does not make a convincing case for the greater emphasis on assistance to SSE advocated in Chapter VI.

3. Their recommendation is to postpone the PRC meeting, which had been expected to take place next week, pending the preparation of a separate Issues Paper. The Issues Paper would be distributed to PRC members, with the SSE paper as background, and a meeting would then be held in due course.

4. We strongly questioned the wisdom of further delay in going to the PRC, voicing doubts that a few more weeks or months would permit anyone to come up with definitive, empirically-based generalizations about SSE factor superiority or inferiority vis-a-vis larger firms. We referred to various passages in the SSE paper which bear on the subject (including para. 17 of the Summary, paras. 1.06-1.08 of the Introduction, paras. 3.07-3.09 of Chapter III, and all of Annex 1), and stressed that our proposals call for continuous examination of industrial and service activities in order to identify those that seem particularly well-suited to the SSE format.

5. Messrs. Burki and Laursen reaffirmed their position, however, and indicated basic doubts concerning the proposition that credit and technical assistance to small enterprise is the right way to tackle urban poverty. They agreed with our comment concerning their ability to produce indisputable evidence in a few weeks or months, and indicated that the Issues Paper would rather be directed toward spelling out why the SSE paper is not persuasive--in part by presenting contrary evidence.

6. You agreed, with great reluctance, to accept their recommendation. They will proceed to draft an Issues Paper, which will be cleared with us prior to PRC distribution.

Cleared by and copy to: Mr. Laursen

cc: Messrs. Baum, Jaycox, and Burki (o/r)

GLH:adh

OFFICE MEMORANDUM

TO: Mr. Robert S. McNamara DATE: November 29, 1976

FROM: Sidney E. Chernick, Acting Director, PP & PR

SUBJECT: Policy Paper on Employment and Small Enterprise Development

1. The policy paper on "Employment and Small-Scale Enterprise (SSE) Development" prepared by the Development Finance Companies Department is attached, together with the minutes of the staff level discussion of an earlier draft.

2. The paper contains a large amount of very useful information, theoretical and empirical, on the subject of SSE-development. Its main recommendation is a greatly expanded emphasis on assisting SSEs on the grounds that (a) past policies and institutions have discriminated against this sector and in favor of larger firms, (b) this sector has been neglected by the Bank, (c) a vigorous SSE sector is believed to be necessary to help create productive employment and to improve incomes for the urban poor at a reasonable cost.

3. I should like to draw your attention to a number of questions that remain regarding the role of SSE:

(i) The paper is inconclusive with regard to the actual scope for an expansion of SSE without incurring a loss in overall factor efficiency.

(ii) The paper does not offer specific operational criteria as to which SSEs should be supported.

(iii) It is not clear that small firms are necessarily more capital-saving for any given product than large firms.

(iv) While on the average the small firms economize in fixed capital, the inclusion of working capital requirements would tend to reduce or might even eliminate this advantage.

(v) While a convenient first approximation, "labor intensity" should not be a separate investment criterion; it ignores the efficiency of all factors of production together, present jobs may be expanded at the expense of future jobs, and it does not consider the distribution of incomes generated. To assess the overall return requires a more comprehensive social cost/benefit analysis.

(vi) Large and small firms co-exist in part because interest rates are low for the former and wage rates (and incomes from self-employment) are low for the latter. Giving small business greater access to credit at reasonable interest rates could increase the capital-intensity of small firms rather than induce them to expand employment.

I suggest that these questions, in particular (ii) and (vi), be further considered in the light of ongoing operational research in the CPS.

4. We would recommend that a PRC review should be held on this paper so as to have an adequate feedback on the direction of policy and further work in this field.

Cleared with and cc: Messrs. Gordon
van der Tak

cc: Messrs. Chenery
Baum
Karaosmanoglu

Attachments

INTERNATIONAL DEVELOPMENT ASSOCIATION | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT | INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

TO: Mr. David L. Gordon, DFC Department DATE: April 14, 1976

FROM: H. Kaneda, ECDER HK

SUBJECT: Comments on Draft Issues Paper, Employment Creation, Small Enterprise Development and the Role of Intermediaries

1. I welcome the draft issues paper for its timely attention on the range of issues it raises in the ways in which the Bank may intervene in small-scale enterprise development. I am aware of the fact that the scope of this draft is limited by the fact that the specific institutional instrument of intervention being advocated is the financial intermediaries and DFC's in particular. Nonetheless, I think it important to raise at least two basic, but essentially interrelated, questions at this time in order that we may focus more sharply on the possible Bank intervention alternatives and also that we may improve upon the draft's analytical framework for small-scale enterprise development.

Pitfalls in the Analytical Framework-

2. I think it unfortunate, although quite understandable, that we cast the major questions at issue in terms mainly of the two familiar factors of production, labor and capital, and also, with regards to the size of operation, in terms of the dichotomy of large/medium scale on one hand and small-scale on the other. Even if we are initially well aware of this being undertaken for the sake of simplicity, what starts out as a convenient simplifying procedure will soon tend to become a rigid framework within which analyses get confined and the richer results that may be obtained otherwise will be foreclosed. The draft suffers from this common phenomenon. Let me illustrate some as follows.

3. One very important premise of the paper is that small enterprises are less "capital-intensive" than large ones in terms of capital-labor ratio. Aside from the enormous variance one often observes in such a ratio among "small-scale enterprises" (depending on the way capital is measured, the hours and the number of shifts of work, the degree of capacity utilization, etc.), one cannot escape from the problem of defining the factor capital as well as the size in the context of such a statement. The problem of course is more than just semantic, as there are physical capital assets (buildings, land development and auxiliary facilities such as utilities, transportation, etc., as well as more familiar production equipment) and also human capital that are often neglected in the conventional factor intensity calculations. That smaller enterprises have less capital per worker than larger ones is usually true, if production equipment alone is taken into account. It is no longer true, however, if buildings, land, and auxiliary facilities are taken into account and if one begins subdividing the small enterprises by size further into finer categories. This empirical observation has important policy implications.

4. If one were to proceed with the hypothesis adopted in the draft that the smaller enterprises are less capital-intensive than the larger, one would favor fostering small enterprises for the sake of the maximum employment creation per unit investment. But, then, soon it is realized that some forms of intervention is necessary for this to be achieved. Usual methods of intervention are such as "credit provision to small enterprises", "provision of sites and services", and "extension and technical assistance". By the time the amounts of capital in its various forms (including those provided in intervention) are added together and the total resource use per unit of output is computed, one may find that small enterprises fostered in this way may very well require more capital and labor per unit of output. Of course, this means that this particular method is a rather costly means of employment creation.

5. It has been known of course since some decades ago that this type of simple-minded factor-intensity rule for investment allocation is deficient. And yet, a variety of sins have been committed in the name of other investment criteria that favored investments in larger units. The draft issues paper as well as many other recent pieces performs invaluable service in emphasizing the need to allocate resources to directly benefit the hitherto neglected group of low-income, often less-than-fully-employed, people. As the draft paper points out, however, the conventional intervention via credit provision and/or other input provision schemes (as pointed out in the paragraph above) are more costly by virtue of the fact that there are many small units (and the attendant higher costs of credit administration, difficulties of securing collaterals, higher risks, etc.). In order to overcome some of these difficulties new institutions and organizations (notably "cooperatives" and "associations") are invented/fostered/imposed. If these institutions are not financially costly, then often are in terms of their intensive demand for scarce human resources inputs. Thus, a project that is successful in the pilot stage often turns out to be a failure when expanded to a larger scale, as the human capital is thinned out and improvisation/innovation becomes sluggish with the bureaucratization of the relevant institution/organization. (In this respect, it is very similar to the experience of rural development projects.) The point is that although it can be done by way of "institution building" the management/organization problems cannot be skirted around.

6. One often neglected aspect of small scale enterprises is the importance of "external economies". By virtue of the fact that they are small most small enterprises are prevented from exploiting internal economies of scale. But, they know (by experience) that there are external economies to be exploited in certain locations (often smaller urban centers in contrast to large metropolises). Often artisans, craftsmen, small traders, etc. are pushed out of their traditional locations as they are beaten in competition with the products of their urban counterparts (much larger, better equipped, in capital and machinery, better protected by the government) and those of foreign suppliers. They move to (and congregate in certain streets of) small local urban areas to profit from exploitation of external economies, which may very well be in the forms of: (a) Access to inputs, especially imported components, components that need a greater

degree of integration of production for efficient production, and components for which "local, social division of labor" can develop in small urban areas; (b) Access to skilled, semi-skilled workers in the trade; and (c) Being able to keep abreast of the markets (of both inputs and outputs) and the technical knowledge in the trade. There are many examples of this in history and in currently developing areas of the world.

Merits of Small Scale Enterprises

7. I shall not belabor a variety of points that can be made on the relative merits of small scale enterprises depending on specific constellation of product and factor/resource endowment, the developmental phase of markets, communication/transportation networks, technology and entrepreneurship and other factors. I shall, however, call your attention to the following set of propositions derived from a study of small-scale industry I conducted with my colleague in the Pakistan Punjab.*

> This growth industry, concentrated in various centers around the Punjab region, attracted our attention because of three important considerations: (1) It is a clear and specific example of industrial/agricultural interaction; that is, agricultural growth has generated demand for output of the domestic manufacturing sector, and contrariwise, the supply of agricultural inputs has been the sine qua non of the "Green Revolution" in West Pakistan. (2) The industry is truly small scale and has been a vehicle marshaling indigenous "minor" savings/investible funds, for the development of entrepreneurial and managerial talent, for training of skilled and semi-skilled labor, and for application of new (for Pakistan) technology. (3) The development of the industry occurred spontaneously, with no subsidies, no tax concessions, no special credit arrangements, no technical assistance or even recognition by official agencies.

One of the most important merits of the small-scale industry in the Punjab (both in Pakistan and in India) as we perceived it, and I think relevant to the problems at issue here, lies in the marshaling/utilization of indigenous, personal (or family) savings that would otherwise have remained idle, or perhaps would have been "wasted" in litigations, ceremonies, or feasts.

8. The relevance of the preceding paragraph is obvious. It is worthwhile to consider, at the time of credit provision, or for that matter when we attempt to foster small-scale enterprise by direct infusion of resources, whether we may just be substituting for some resources that would otherwise have been mobilized, rather than complementing them.

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* "Links to the Green Revolution: A Study of Small-scale Agriculturally Related Industry in the Pakistan Punjab," EDCC (Jan. 1955), pp. 249-275, with F. C. Child.

Furthermore, once we accept the proposition that small-scale enterprises utilize the "idle" hoards of individuals and families and that the opportunity costs of such hoards are lower than investible funds elsewhere, it follows that apparent inefficiency in the resource use by the smaller of small-scale enterprises is not a sufficient condition for discouraging theif development. In the same token, however, it follows that so long as the development of small enterprises requires the provision of credits (that displace the indigenous savings), factory sites and infrastructure specifically for that purpose, and so long as production facilities in the industrial sites are not operated at capacity, this particular approach to industrialization and employment creation would be a costly one indeed.

9. One minor technical point that may be helpful in improving the draft has to do with the statistical analyses in Annex 1. For instance, Graph #1 shows the correlation coefficient to be 0.7 whereas in the text discussion R^2 is said to be .7. Which is true? Similar confusion is repeated over and over again in all the regression analyses. Of course, if the correlation coefficient (R) is .7 then the coefficient of determination (R^2, unadjusted for the degrees of freedom, I presume) has to be .49, which says that only 49 percent of the variations in the dependent variable is "explained" by the variations in the independent variable chosen (on the basis of the statistical hypotheses assumed). Whether this is a "surprisingly good fit" or not depends on what one means by the phrase.

10. This set of comments is already too long. I would have liked to comment on some of the alternatives to the specific institutional instrument (DFC's) that you have chosen. That the draft itself ponders this aspect of the problem is quite clear. And, as I mentioned in the beginning, the scope of the draft is limited by that which the authors chose. Nonetheless, it seems worthwhile to ponder more seriously the question whether or not DFC's are a good institutional instrument to go about fostering small-scale enterprises relative to other avenues open to the Bank's possible intervention in this matter.

cc: Messrs. Loeschner
Burki
Anderson, D
Barry, N.
Bhatt
Leiserson
Little, I
Webb
Stoutjesdijk
Baum
Christoffersen
Goderez
Maeda
Steele, D.
Thadani
Weiss, C.

OFFICE MEMORANDUM

TO: Mr. Ravi Gulhati, ECDDR

DATE: April 14, 1976

FROM: Donald B. Keesing, ECDND DBK

SUBJECT: DFC Issues Paper on "Employment Creation, Small Enterprise Development, and the Role of Intermediaries"

1. Apart from remediable flaws this is in my opinion an excellent piece of work, doing great credit to the DFC Department. The paper is boldly imaginative, yet rich in specifics, illustrative evidence and thoughtful qualification.

2. Throughout most of the paper, with the exceptions noted below, I find myself either provisionally persuaded or else in strong agreement with what is said. On the whole I like the thrust of the paper, particularly the action program.

3. It seems to me there is an opportunity and challenge for our Department here, because a vigorous SSE program along the lines suggested would create pressures for related research in three or four of our Divisions. Bank DFC specialists would need help in evaluating what is being learned. The Public and Private Finance Division, among others, could potentially play a major role in systematically exploring the lessons and problems of DFC lending for SSE development.

4. One weakness in the paper deserves criticism: conflicts between the objectives of employment and output are not acknowledged, addressed or resolved. Small enterprises generate more employment than large enterprises, for a given investment: this means that capital/labor ratios are lower in SSE. But what about output/labor and output/capital ratios? As the paper says on page 9, studies show that "small firms in contemporary developing countries use less capital per man, produce very much less value-added per man, and pay lower wages per man, than large firms." Where output per worker is much lower, the result can be that capital/output ratios are higher (and yields from a given investment lower) in SSE; in this case, both labor and capital requirements per unit of output will be higher in SSE than in large enterprises. This would be generally true, in fact, using technology that "turns back the clock." In 1900, as the paper says, today's industrial countries had mostly SSE; in those days they had no employment problem! The same was true a fortiori in today's developing countries.

5. I have argued elsewhere that describing today's problems of poverty and unequal distribution as due to a lack of "productive employment" is deceptive and basically incorrect. Without going into that again, let me point out that labeling SSE employment "productive" does not solve the problem. Any country, by choosing low productivity methods and turning the clock back far enough, could achieve full employment. The difficult

/2...

trick is to get high output per worker and still achieve full employment. SSE development may be an important means toward this end, since small enterprises do play a huge role in the advanced industrial countries. But to an important extent, the main argument for SSE presented in the paper is misleading and spurious. The central problem is not only ducked; it may have been overlooked. A big, low productivity SSE sector alongside a small, high productivity sector spells income inequality and low output per head. Does the Bank want its lending program to perpetuate economic backwardness? This becomes a danger if the yardstick for our SSE program is to be employment creation. As Mr. Little would say, "that is Neanderthal economics."

6. Scattered references to DPS (e.g., on pages xii, 48 and 64) suggest a reliance on us for research, but propose that our research be intimately related to the practical experience and problems of the SSE program as it unfolds. I would favor making this one strand in our research, but I don't think it should be our main focus.

7. Another contribution that we can make is not discussed, but it should be. Its omission is intimately linked to the lack of any output/ productivity/ efficiency dimensions in the paper as it stands. This is the need to study the spectrum of sizes and types of organization of enterprise, activity by activity, to see what types and sizes of enterprises make most sense, exactly how and in what circumstances large and small enterprises are complementary, and what types of SSE development are called for by market demand, not simply as a means of creating employment, but in order to deliver modernization and efficiency in balance with other objectives such as equitable distribution and employment and eradication of poverty. As a complement to this we should study what sorts of technology and technology policies make sense. If I understand correctly what Messrs. Westphal and Leiserson are proposing, they plan to undertake research along these lines. Such research would be highly complementary with the SSE program proposed by the DFC Department. The fact that their paper does not adequately reflect (and they may not fully grasp) the output/productivity/ efficiency dimensions of their subject seems to me a compelling argument for our doing research that will bring the issues and answers into focus.

DBKeesing:pj

cc: Mr. Avramovic
Mr. Little
Mr. Shepherd
ECD Division Chiefs

OFFICE MEMORANDUM

TO: Ravi Gulhati, Director, ECDDR

DATE: April 14, 1976

FROM: V. V. Bhatt, Chief, ECDPF

SUBJECT: Comments on the paper - Employment Creation Small Enterprise Development and the Role of Intermediaries

1. I agree with the following points made in the paper:

(i) Government policies by and large have discriminated against small enterprises;

(ii) The financial institutions are not oriented towards the provision of financial and technical services to this sector.

(iii) World Bank should try to reorient LDC policies towards correcting these biases in the policy framework through tailoring its lending program in favor of financial intermediaries that can provide effectively and at reasonable cost financial and technical assistance to small enterprises.

2. I, however, do not agree with the following propositions:

(a) All small enterprises are labour-intensive;
and (b) Small enterprise development would necessarily redistribute incomes and assets in favour of the poor.

Some studies made in India indicate that capital intensity (Fixed plus working capital as proportion to labour force) is not necessarily lower in small enterprises; the paper takes only fixed capital/labour as an index of capital intensity. Again, the small entrepreneurs in the modern sector in their origin belong to the upper five percent of income and wealth bracket.

3. The real question, then, is that of identifying such small enterprises which are labour-intensive and which can help the poor. There is no requisite institutional framework which has specialised in this task in the LDCs.

4. Further, after such project ideas are identified, the real task is to inquire: What specific organisational and technology changes would make the potential projects viable. There are traditional small industries that are potentially viable provided they are an integral part of a larger organisational set-up -- with the functions of procurement of materials and marketing of products. Some substitute for the putting out system is essential for their growth.

Again, some small production units can be potentially viable provided their technology is upgraded. There has to be a design engineering set up which concentrates on this problem.

Further, there is the question of relevant information on technological possibilities -- this requires search or research; for one must know what questions to ask to those who may have this information or even to search the possessors of such information.

I do not believe that the type of technical assistance envisaged -- even the nature of Technology Referral Service -- is adequate for this purpose.

5. Credit is a problem; but the basic problem of small enterprise promotion is much more complex than is made out in this paper. In particular, small enterprise promotion would require:

(a) Identification of Project Ideas
(b) Upgrading of traditional technology
(c) Search for relevant modern techniques
(d) Entrepreneur training programs
(e) Coordination of agencies dealing with a to d with financial institutions/agencies purveying credit on terms and conditions tailored to the requirements of small enterprises and performing effective good monitoring function.

Without these, mere establishment of credit/technical service provision institutions may create further distortions in the economic/financial structure.

WORLD BANK / INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

TO: Mr. Robert S. McNamara DATE: November 29, 1976

FROM: Sidney E. Chernick, Acting Director, PP & PR

SUBJECT: Policy Paper on Employment and Small Enterprise Development

1. The policy paper on "Employment and Small-Scale Enterprise (SSE) Development" prepared by the Development Finance Companies Department is attached, together with the minutes of the staff level discussion of an earlier draft.

2. The paper contains a large amount of very useful information, theoretical and empirical, on the subject of SSE-development. Its main recommendation is a greatly expanded emphasis on assisting SSEs on the grounds that (a) past policies and institutions have discriminated against this sector and in favor of larger firms, (b) this sector has been neglected by the Bank, (c) a vigorous SSE sector is believed to be necessary to help create productive employment and to improve incomes for the urban poor at a reasonable cost.

3. I should like to draw your attention to a number of questions that remain regarding the role of SSE:

(i) The paper is inconclusive with regard to the actual scope for an expansion of SSE without incurring a loss in overall factor efficiency.

(ii) The paper does not offer specific operational criteria as to which SSEs should be supported.

(iii) It is not clear that small firms are necessarily more capital-saving for any given product than large firms.

(iv) While on the average the small firms economize in fixed capital, the inclusion of working capital requirements would tend to reduce or might even eliminate this advantage.

(v) While a convenient first approximation, "labor intensity" should not be a separate investment criterion; it ignores the efficiency of all factors of production together, present jobs may be expanded at the expense of future jobs, and it does not consider the distribution of incomes generated. To assess the overall return requires a more comprehensive social cost/benefit analysis.

(vi) Large and small firms co-exist in part because interest rates are low for the former and wage rates (and incomes from self-employment) are low for the latter. Giving small business greater access to credit at reasonable interest rates could increase the capital-intensity of small firms rather than induce them to expand employment.

I suggest that these questions, in particular (ii) and (vi), be further considered in the light of ongoing operational research in the CPS.

4. We would recommend that a PRC review should be held on this paper so as to have an adequate feedback on the direction of policy and further work in this field.

Cleared with and cc: Messrs. Gordon
van der Tak

cc: Messrs. Chenery
Baum
Karaosmanoglu

Attachments

DRAFT
JCEnglish:mk'
April 14, 1976

TO: Mr. R. Gulhati

FROM: Douglas Keare, Anna Sant'Anna and John English

SUBJECT: Preliminary Points on the DFC Issues Paper

1. The paper contains a great deal of material and covers a very wide range of issues related to the development of small scale enterprises. However, the result appears in many respects to be too broad in scope and to be somewhat diffuse as a result.

2. The case for assisting small enterprises appears to be argued on too broad a level, and tends to lead to the conclusion that emphasis on SSE will solve almost all problems, e.g., in particular para. (vi) in the Summary. The body of the text is not very illuminating in supporting this summary paragraph and many of the points are legitimately areas for research rather than arguments which support SSE developments.

3. For example, the use of national or regional intermediary organizations, which will inevitably have limited staffing, will mean that these institutions will only be able to serve existing entrepreneurs. While some efforts may be made through cooperative, handicraft organizations etc., these will be essentially peripheral, in terms of lending and likely impact. Especially in more rural environments, lending to existing entrepreneurs will mean that principal benefits will be obtained by those already better off in the community. This is not to argue that such efforts should not be supported, but to note that "interpersonal and interregional income inequalities" may well not be reduced. Effectively, in these situations we are likely to be operating in a manner which we have been trying to move away from in agricultural projects, i.e., supporting larger-scale enterpreneurs. Given the difficulties of establishing finance and support

systems, this is inevitable, but it would be better to bring this out front rather than pretend otherwise.

4. The principal goal of the paper is not really clear. Is it to be a paper for management decision as to scope and composition of lending for SSE; to indicate to staff involved in SSE work issues and directions which might be explored in formulating projects (or subprojects); or to provide a background to the President's letter to DFCs "explaining the Bank's new emphasis"? It does not seem to fill any of these needs.

5. Some sort of structural element seems to be needed, e.g., a country typology, which could form the basis of a discussion of types of approaches which might be considered in different country groups.

6. Similarly, many of the ideas presented would not themselves form the core of an SSE project. Combining a number of them would result in a diffuse project with major management problems. Could a division of some sort be made between (a) scope and organization of DFC SSE projects, and (b) the scope and organization of SSE components in rural, urban and other non-DFC projects.

7. This type of approach, narrowing objectives and providing a typology or structure, might lead to some ordering of priorities for the Action Program. For example, the 12 topics for Study or Guidelines provide a formidable agenda for work. Some guidance is needed on where to start. Presumably Item (22), analyzing what types of incentives for SSE have high potential pay-off, is a higher priority than Item (24), investigating the "curb-market".

8. On more specific points, the summary does not always provide a very good reflection of the text, e.g., para. (xviii) refers to "organized municipal and rural services". In the main text this appears actually to be contracting services, e.g., contract ploughing, spraying, refuse collection. Similarly, para. (vi) is not really elaborated upon but is essentially repeated in para. 2.23 where it is clearly a minor addition to the main argument.

9. Similarly, some of the examples appear not to be well chosen. For example, although the Nicaragua S & S project contained credit for SSEs, the cutoff point was very high. As a result, the bulk of SSEs existing before the earthquake were not covered and many have never been able to get back into business.

10. While we agree with the general point that projects should not have to wait upon sector work, this point may have been slightly overdone. The paper points out the frequent symbiotic relationship between large and small enterprises. Are, in fact, those constraints which hinder the development of SSEs predominantly those which can be overcome by project approaches through intermediaries? Projects will only benefit directly a very small proportion of enterprises. In many circumstances a much greater impact might be made through appropriate policy changes. To what extent are we willing to make these conditions of lending?

11. In principle, we have no real difficulty with the housing ideas. However, the implied approach seems to be through S & L type institutions and we would query whether in fact these could serve as a nucleus for financing housing construction for the bottom 40 percent. They certainly don't in most developed countries. Consideration is being given in some current urban projects to the proposed elements, e.g, Pakistan and Zambia.

EMPLOYMENT CREATION AND SMALL SCALE ENTERPRISE DEVELOPMENT

November 30, 1976

Development Finance Companies
Department

EMPLOYMENT CREATION AND SMALL SCALE

ENTERPRISE DEVELOPMENT

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SUMMARY

1. In most developing countries only a fraction of the annual additions to the labor force can be employed productively in agriculture, and the meager availability of capital severely limits the number of new non-farm jobs that can be created so long as investment costs per job continue at levels typically associated with modern industry. An effective development policy should therefore seek to increase the demand for labor as an input in production processes, relative to capital, to the extent compatible with overall economic efficiency.

2. A number of general studies, supplemented by specific case studies, suggest that the efficient substitution of labor for capital is possible over a broad spectrum of manufacturing activities. In many LDCs, unfortunately, the tendency has been to prefer capital-intensive procedures as a result of the prestige and promotion of advanced-country technologies, ignorance of alternatives, high-income-consumer preferences for import-equivalent goods, difficulties in dealing with large numbers of inexperienced workers, and government policies that tend to favor capital use. These same influences affect non-manufacturing activities as well.

3. Small scale enterprise (SSE), comprising (a) small but relatively modern manufacturing industry, (b) organized non-manufacturing activities such as construction, transportation, and trading, and (c) traditional or "informal" activities, is generally labor-intensive compared to larger organizations. Small manufacturing firms clearly generate more direct and probably generate more indirect jobs per unit of invested capital, on the average, and service activities usually exhibit even lower capital costs. Such generalities cannot be pushed too far, since reliable data for making rigorous comparisons on an enterprise level and for an identical product are very scarce. Small firms tend to produce goods and services that are physically and/or qualitatively different from those produced by larger firms. The observation that SSE is generally labor-intensive is nonetheless well grounded in fact, and in many activities where the optimal size of production unit or sales outlet is small the most efficient form of business organization is the small firm.

4. SSE provides productive outlets for the talents and energies of enterprising, independent people, many of whom are not well suited to work in large organizations. Small firms often flourish by serving limited or specialized markets that are not attractive to large companies. They provide a seedbed for entrepreneurial talent and a testing-place for new industries, thereby supplying dynamism and contributing to competition within the economy. They enhance community stability, have less adverse impact on the physical environment than do large factories, stimulate personal savings, promote agro-industrial linkages and improve rural welfare, and generally raise the level of popular participation in economic activity. In many countries small firms furnish parts and sub-assemblies to large firms at considerably lower unit costs than would prevail if the latter were to absorb the function. All things considered, there is definitely a role for SSE in most economic systems, just as there is for medium- and large-scale business organizations.

5. Small enterprises have weaknesses, of course, some of which can be overcome by the intense personal commitment of their owner-managers but others of which are hard to correct without outside help. Specialized management is rare in SSE, and one person is usually responsible for production, administration, finance, marketing, and numerous other functions which would normally be distributed over several persons in a large firm. Apart from inherent weaknesses, moreover, small firms face a number of artificial disadvantages, relative to larger firms, in most countries. The better managed firms find market niches and generate surprising amounts of investment resources for themselves, but often lack access to institutional credit and government facilities. The numerous artisan and informal activities depend on middlemen and moneylenders for supply and marketing services as well as for credit; these services are very costly and often restrictive. Infrastructure facilities are often deficient, and public programs for the provision of technical and marketing assistance rarely reach the small firm.

6. It follows from the preceding discussion that in addition to "getting the prices right," by removing or reducing pervasive factor-price distortions which cause business in general to favor capital-intensive products and processes, special efforts are in order to help small firms overcome their weaknesses and exploit their natural advantages. Such efforts include, inter alia,

(a) directing institutional procurement to SSE, or at least making it easier to compete therefor;

(b) encouraging sub-contracting by large firms to small firms;

(c) developing industrial estates, especially those which stress linkages among large and small firms, and providing joint services and technical assistance to homogeneous SSEs;

(d) broadening the lending coverage of conventional Development Finance Companies (DFCs) to include construction, transportation, trade, repair facilities, personal services, and other activities;

(e) providing working capital, which often is needed as much or more than fixed-asset financing; and

(f) devising alternative means of loan security that are acceptable to lenders and feasible for borrowers.

7. The ability of most DFCs to influence client firms' choice of technology is limited, but they may usefully attempt to

(a) identify, and assist clients to exploit, opportunities for sub-contracting;

(b) give explicit weight to labor intensity in subproject appraisals, and discourage unnecessary capital intensity;

(c) facilitate access to knowledge of alternative technologies; and

(d) finance the adaptation of technology to local conditions.

8. Despite increasing interest and investigation in many countries, solid and up-to-date information on technology alternatives is not always readily accessible. It is recommended that the Bank sponsor, on a trial basis, a clearinghouse for such information, linking Bank-assisted DFCs with international technical data and research resources. National agencies for technology information and adaptation also deserve support.

9. Apart from DFCs, other entities which may be used to assist SSE include:

(a) commercial banks, which normally have wide contacts and fairly simple loan procedures but which also tend to be very cautious and conventional in outlook;

(b) investment companies, which can provide essential seed capital;

(c) mass-oriented intermediaries such as workers' banks, credit unions, savings and loan institutions, etc.;

(d) cooperatives, which are hard to organize and maintain but which offer great potential as channels for credits, guarantees, collections, delivery of technical assistance, joint procurement and marketing, etc.;

(e) middlemen and moneylenders, pending the evolution of effective institutional alternatives; and

(f) institutions involved in integrated programs of urban and rural development, incorporating SSE credit and technical assistance.

10. The savings potential of SSE deserves special emphasis, and should be encouraged in all programs affecting this sector. Attractive deposit interest rates and other incentives to save should be featured in popular credit programs.

11. The delivery of finance to SSE needs to be coordinated with the provision of technical assistance, and in view of the diversity of SSE needs, the design of delivery systems should vary according to circumstances. Artisans and informal sector people are especially hard to service, unless there is a concentration of very similar activities. In many situations the need is to devise institutional delivery systems which simulate the positive aspects of the middleman/moneylender system, while avoiding the more exploitative features.

12. It generally costs more per unit of assistance delivered and credit extended to SSE than is the case with larger businesses. The credit risk may accordingly have to be underwritten, at least for a time, by partial government guarantees. The cost of such guarantees, and of general technical assistance, ought to be distinguished from the cost of money, and either counted as promotional expense to be paid by government or passed on to the SSE beneficiaries. The interest rate to SSE clients should not be less than that charged to larger clients, and should be significantly positive in real terms. In view of their relative lack of sophistication about such matters, SSE clients should be permitted to pay a fee and let government carry foreign-exchange risks.

13. Bank/IDA commitments for DFC projects during FY1972-76 totalled about $2200 million; only about $100 million of this amount was explicitly for SSE, almost all since 1973, but other DFC and some industrial estate projects also assisted small firms to an amount estimated at $80 million more. For the future, it is recommended that substantially greater emphasis be given to SSE, and that appropriate technology choices be encouraged for every scale of operation.

14. The Bank's country economic and industrial sector work should stress the importance of correcting policies which tend to encourage undue capital intensity in investment and to inhibit SSE development. It is proposed that the President write to DFC managers and their governments, expressing the Bank's concern for employment/appropriate technology/SSE development, informing them of the proposed Technology Referral Service, soliciting constructive suggestions, and emphasizing the importance of a favorable policy environment.

15. Tentative lending targets for FY1977-81 are suggested which would

(a) boost the dollar value of SSE lending (defined as lending to firms classified as "small" in their respective country, subject to a maximum fixed asset limitation of $250,000 in 1976 prices) from an estimated $115 million in 1977 to $330 million in 1981, an increase from 15 to 30 percent of total DFC commitments;

(b) initiate at least ten experimental projects in the informal sector, for at least $50 million, involving new types of intermediaries or approaches and an average cost per job below $1,000;

(c) initiate at least eight industrial estate projects with provision for SSE, lending at least $60 million; and

(d) seek to direct at least a third of total DFC lending into subprojects the benefits of which will accrue to the urban poverty target group, as defined by and in accordance with the guidelines and country parameters currently under preparation in the Bank.

16. Assistance to SSE may require some adjustments in Bank lending policies, including

(a) greater flexibility in financing local currency costs;

(b) more liberal financing of working capital;

(c) drastically simplified criteria and procedures for subproject appraisal; and

(d) the passing on of Bank/IDA funds to DFCs and other intermediaries at lower than normal interest rates, on occasion, while maintaining significantly positive real rates to final borrowers.

New types of intermediaries (some already being explored) will be used.

17. Although increased Bank assistance to SSE is expected to lead to significant benefits in terms of broadening employment and income opportunities among the urban poor, the magnitude of the problem is so great that our impact will be quite modest. The Bank's ability to give timely and penetrating policy advice may well be of much greater importance. The conclusion of this paper, nonetheless, is that the Bank can and should proceed without delay to give support to SSE in the developing member countries. The basic rationale behind this conclusion is that SSE plays a major role in providing employment and income to the urban poor, and that past neglect and policy bias need to be corrected in order to give small enterprises greater opportunity vis-a-vis large firms. The paper provides some evidence that this support for SSE, involving the provision of credit and technical assistance, need not entail unacceptable costs in terms of overall factor efficiency provided that reasonable care is taken in the selection of activities. Although this evidence cannot be described as conclusive, it seems adequate to warrant moving ahead with an active "learning-by-doing" SSE program.

I. INTRODUCTION

1.01 Most developing countries are characterized by a rapidly growing population and labor force. While much of this labor force will continue to be absorbed in traditional agricultural pursuits, it is clear that an increasing amount of labor will have to be employed in non-farm occupations --roughly two out of every three job seekers over the next twenty-five years. Some of these jobs may be found in villages and small towns, closely linked to developments in agriculture. A growing number, however, will have to be found in the larger towns and cities.

1.02 Absorption of this inevitable labor force growth into productive employment is one of the principal challenges of development in the remaining decades of this century. Most new entrants into the labor force will be poor and unskilled, coming from rural areas and city slums. Their number and lack of skills mean that in all but a few countries the process of absorption will take place under conditions in which real urban wage rates for the great majority are unlikely to show substantial increases until the pressures of population growth and migration on the supply of labor subside.

1.03 The prospect of stable real wage rates does not necessarily imply stagnant real incomes; the transfer of labor from agricultural activities to higher-productivity non-farm activities, together with opportunities for increased participation of the population in the labor force, will result in some increases in average income per head. The lot of the poor in both rural and urban areas who have only unskilled labor to offer, however,

can only improve substantially when the demand for labor, relative to supply, begins to exert upward pressure on wages. In some countries this is probably a decade or so away; for reasons it could be a much longer process.

1.04 This paper examines the potential role of the Bank Group in assisting LDCs to expand the demand for urban labor. In most LDCs the scarcity of capital is a major constraint, so that in varying degrees depending on specific factor endowments, emphasis should be placed on utilizing capital as widely and efficiently as possible in order to expand the demand for labor[1/]. It appears that small-scale enterprises (SSEs) often generate more jobs per unit of investment than do larger firms, which suggests that SSE development can be an important component of the attack on poverty. The small entrepreneurs themselves may not be poor,[2/] although their relative prosperity is often precarious, but they provide livelihoods for many others in need.

1.05 These considerations have led the Bank (a) to investigate the potential for job creation and other benefits from enterprises of different sizes and degrees of capital intensity; and (b) to seek means to assist, financially and otherwise, those at the lower end of both scales. The latter purpose cannot be accomplished by direct loans from the Bank, given the smallness and dispersion of the targeted beneficiaries, so it is necessary to work through appropriately organized and oriented intermediary institutions in the LDCs. Thus the principal focus of this paper is on the use of intermediaries

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1/ All subsequent discussion relates to LDCs in which capital and foreign exchange are scarce, and unskilled labor is in ample supply.

2/ In the informal sector (see paras. 3.01 and 3.02), however, entrepreneurs are usually workers and often are poor.

1.06 It should be recognized that references in this paper to broad tendencies and characteristics are not meant to be taken as necessarily applicable to every specific urban activity. Thus the observation that SSEs use less capital per worker than do large enterprises, on the average, is not offered as a universal truth; some SSEs are doubtless more capital intensive than their larger cousins. It is also likely that some SSEs use capital less efficiently than their larger counterparts. But after allowing for data problems and the fact that small firms tend to produce goods and services that are physically and/or qualitatively different from those produced by larger firms, it still seems clear that SSEs generally tend to create more jobs per unit of capital investment. They also get less output per worker, pay lower wage rates, have more intimate contact with the urban poor, and seem to get more output per unit of capital.

1.07 The conclusion to be drawn from these observations is not that SSEs ought to be promoted indiscriminately throughout the developing world. The point is rather that employment and income opportunities for the urban poor can be improved, through the provision of coordinated credit and technical assistance, without facing unacceptable costs in terms of overall factor efficiency. Some activities are natural candidates for assistance, in that they serve limited markets (because of product perishability, high unit transportation costs, custom design, etc.) and/or are not subject to significant economies of scale in production. Our knowledge is not adequate to permit an enumeration of such lines of endeavor, but in time it should be possible to identify a growing number that because of country-specific circumstances have exceptional promise in terms of ability to produce desired goods or services at competitive unit cost, to create useful job opportunities, and to survive.

1.08 The provision of assistance to selected SSEs is merely the means to an end, since the goal is the creation of greater demand for human labor. In most of the developing countries the indispensable "ticket" needed to share in the national income, for the vast majority of persons, is a job. And in view of the enormous existing and future supply of raw urban labor in those countries, simple arithmetic indicates very clearly that unless the supply of investment capital can be spread more widely than in the past, unemployment and underemployment will persist or worsen. Hence, the Bank should encourage and assist the developing member countries to change national policies and procedures which discriminate against labor and favor the excessive use of capital in productive activities. Helping them to deliver credit and technical assistance to small firms is one approach to the problem; others, including the provision of timely and penetrating policy advice, may well be of greater importance.

II. EFFICIENT RESOURCE UTILIZATION FOR CREATING EMPLOYMENT

2.01 In LDC urban areas, manufacturing employment is generally growing much more slowly than manufacturing output. Capital/labor ratios for new industrial projects in LDCs frequently involve capital costs per job of $15,000 or more, and entail high foreign exchange requirements. In very few LDCs would the availability of capital suffice, at such cost, to absorb more than a small fraction of the increment to the labor force.[1/] Public policy must, therefore, aim at stimulating the creation of new jobs at much lower average capital cost, both in manufacturing and in other urban occupations.

A. Manufacturing Sector

2.02 This low-cost job creation need not imply a reduction of overall economic efficiency-- i.e., of lower total output relative to the combined capital and labor inputs, appropriately valued. Econometric studies for a wide range of countries indicate, with few exceptions, "that efficient factor substitutability is possible".[2/] From engineering and process analysis studies, available for a limited number of industries, "factor substitutability does seem to be quite possible, and the differences in factor ratios can be quite substantial" -- e.g., efficient alternatives in rice milling/marketing ranging from $65,000 to $700 investment per worker, and in cotton textiles from $21,500 to $6,600 (even much lower in other calculations).[3/] Labor-intensive alternatives are not invariably to be preferred -- quality standards, economies of scale, and management or skilled labor requirements may sometimes tilt the balance toward

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1/ The Urban Projects Department has estimated roughly, for a number of countries, what average cost per job is implied by the country's capital constraints and the size of its employment problem. Examples, based on preliminary, unadjusted data, are: India $500; Chile $4,800 and Malaysia $3,100.

2/ Lawrence J. White, Appropriate Factor Proportions for Manufacturing in Less Developed Countries: A Survey of the Evidence. (Discussion paper No. 64, Princeton, 1976), p.13. See also David Morawetz, "Employment Implications of Industrialization in Developing Countries", Economic Journal, Vol 84, pp. 499-500.

3/ Ibid, p. 19.

more capital-intensive options -- but "in virtually all cases, at realistic opportunity-cost wage and interest rates for LDCs, labor intensive or intermediate alternatives are economically sensible."[1/]

2.03 Supplementing country- or industry-wide analyses, there is extensive documentation of specific examples of efficient substitution of labor for capital, such as the importation of used equipment at a fraction of original cost; running machines at faster speeds or for longer hours than is normal in advanced countries, the more frequent breakdowns offset by low wages for repair crews; intensive manning of machines to compensate for their lower reliability; continuous patching and improvised repairs, notably evident in vehicles as well as industrial equipment in many LDCs; etc. Such expedients not only economize capital but over time act to expand the pool of practical mechanical skills. Often a mix of advanced and simpler intermediate technologies is appropriate -- some production processes requiring a high level of mechanization and quality control, other peripheral aspects (e.g., materials handling) remaining labor-intensive, so long as the latter do not constrain output or capacity utilization in the former. The conceivable adaptations and innovations are as varied as the range of industrial products, processes, market segments and consumer demands, and their viability is strongly affected by specific country circumstances and policies.[2/] Adjustments need to be worked out on the ground, insofar as possible -- by local technical, financial or commercial entities, or individual entrepreneurs and mechanics -- but such local initiatives could benefit from more efficient international interchange of technological information (see para 4.20).

2.04 Despite the widespread evidence that efficient technological

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1/ Ibid, p.22.

2/ A systematic effort to develop, and apply commercially, appropriate technologies in the electronics industry is conducted in the Pilot Plant of N.V. Philips at Utrecht. The components and production processes of various electronic goods are analyzed in relation to differing country factor proportions, component producing potentials and markets, to find the optimal technological mix. Based on these findings, overseas plants have been set up in some 20 countries, and their techniques, local content, product mix, etc., can be progressively upgraded. The Pilot Plant's original purpose was not to create more jobs in LDCs, but to devise commercially viable patterns of local production, replacing imports, despite the small production runs anticipated.

options exist, their documented importance in the economic history of Japan, Korea, Taiwan, and elsewhere, and the many specific examples of successful application, a combination of mutually reinforcing influences, often leads industrialists in LDCs to make choices that are more capital-intensive than is appropriate to their countries' factor endowments. Among the reasons for this misdirection are (a) the prestige of Western technology and the hesitancy of LDC entrepreneurs, officials and financial institutions to take chances on "inferior" or untried alternatives; (b) the lack of knowledge of such alternatives; (c) the selling, by expatriate consultants and suppliers, of the technologies and equipment that they know; (d) the tying of most aid to imported capital goods; (e) favorable tariff and tax treatment, exchange rates and credit conditions accorded to imported capital goods in many countries; (f) low-interest credit and fiscal incentives provided for industrial investment in general; (g) high levels of protection for the products of "modern" industry in the domestic market; (h) the desire to minimize problems of labor management; (i) unduly high wage differentials for protected workers in the modern sector (often reinforced by minimum wage laws and prohibition of lay-offs) relative to the rest of the labor force; and (j) consumer preferences among the higher income groups in LDCs (who frequently have disproportionate influence on the market) for import-equivalent goods.

B. Non-Manufacturing Sectors

2.05 The discussion so far has related mainly to manufacturing industry. But appropriate technology can be no less significant in other sectors -- in civil works and building construction, in transport and other services, in agricultural processing and cultivation. The range of differences in capital intensity in some of these activities is comparable to that in manufacturing, and they account in the aggregate for a much greater share of jobs in most LDCs.

2.06 The indirect effects of industrial investment and output on employment may often be more significant than the direct ones (see Annex I, para 14). In Mainland China, it is reported, "despite the relatively labor-intensive character of the small rural industries /as compared with modern urban plants/, their direct labor-absorbing impact has been small." Their main employment contribution is to permit the intensification of agriculture "by releasing countless individuals (mostly women) from the arduous tasks of hand grinding and milling", and to counteract the diminishing returns to labor-intensive cultivation by providing modern types of inputs complementary with labor.[1/]

2.07 One means of fostering the creation of more urban (or non-farm) jobs per unit of capital invested is through encouraging development of small

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1/ Carl Riskin, Intermediate Technology in China's Rural Industries (mimeo, 1976), pp. 9 and 10.

scale enterprise (SSE) which is generally more labor-intensive than larger units. This is the topic of Chapter III.

III. SMALL SCALE ENTERPRISE DEVELOPMENT: ADVANTAGES AND PROBLEMS

3.01 SSEs comprise a wide variety of undertakings, which may be categorized in diverse ways in light of different countries' pattern and stage of development, and their governments' policy aims and administrative set-up. The Georgia Institute of Technology[1/] has found at least 50 different definitions used in 75 countries. Definitions may relate to capital (with top limits ranging from about $25,000 to $2 million) or employment (maxima from 15 to 500) or both, or to other criteria. Some countries have no official SSE definition; others use two or more for different purposes. As a working definition for this paper, SSE includes all enterprises classed as "small" in their countries, subject to an upper limit of $250,000 (in 1976 prices) for fixed assets excluding land,[2/] before any proposed expansion project. No lower limit is set; SSE in this paper encompasses sole proprietorships, family businesses, small shops with a handful of workers, cottage industries, artisans, etc.

3.02 Within this mixed bag it will be useful, for the purpose of clarity, to distinguish three SSE categories, which themselves are quite broad and varied:

(a) small manufacturing companies of relatively modern character (SSI);

(b) organized non-manufacturing enterprises--e.g. firms engaged in construction, repair, transportation, and trading activities; and

(c) enterprises that are not organized or conducted in a "modern"

1/ An International Compilation of Small Scale Industry Definitions, Atlanta, 1975.

2/ In practice, well over three-fourths of the "small" enterprises so defined have fixed assets below $100,000 and employment below 50. We have chosen the fixed-asset limit to underscore the scarcity of capital relative to labor. "Land" is excluded bedause its valuation is even more difficult than that of other fixed assets.

manner--traditional artisans, petty traders and transporters, etc.--essentially corresponding to the "informal" sector.

while the subsequent discussion and proposals relate mainly to SSE in urban areas, they also apply in substantial part to rural non-farm activities.

A. Efficiency of SSE in Capital and Labor Utilization

3.03 A meaningful comparison of the capital/labor ratios of small and large enterprises can be made only for the first (manufacturing) category above. Although the data are incomplete and not always comparable, they strongly suggest that investment cost per job tends to increase with increasing scale, whether measured in terms of assets or number of workers (Table 1). A more detailed discussion is contained in Annex I.

Table 1
Fixed Assets/Direct Employment in Manufacturing in Selected Countries

Size of Enterprise	India a/ (1965)	Colombia b/ (1974)	Philippines c/ (1970)
Small	$278	$3,000	$1,020
Medium	$557		$2,850
Large	$2,450 ($5,000)	$13,400	$8,000

a/ Data from Annual Survey of Industries, 1965, and (in parentheses) ICICI publication Financial Performance of Companies, 1973/74, p.23

b/ Banco de la Republica, El Mercado de Capitales en Colombia, Bogota, 1974. Other estimates of the cost/job in Colombian medium/large enterprises, quoted in the Bank's 1972 OED report on Colombia, range as high as $15,000 - 22,000.

c/ ILO, Sharing in Development, 1974.

3.04 These figures relate to the firm as a whole, usually the result of a succession of expansion and improvement projects. The cost/job ratios are about three times higher for improvement investments, because as a company grows and prospers it "upgrades" its production technology and becomes more "modern" and capital-intensive. Some of the later investments may be designed explicitly to replace labor, and others to break bottlenecks and raise output without greatly increasing the work force. Hence, project-related (rather than company-related) cost/job ratios for the Bank's DFC sub-borrowers are often much higher than those in Table 1. The numbers above do not reflect 1976 costs; small firms would now require perhaps $1,000 - 3,000 investment per job, and medium to large companies perhaps $5,000 - 20,000. But the correlation between capital intensity and size of firm remains consistent at different price levels and stages of development.

3.05 If it is correct that SSEs tend to employ more direct labor per unit of capital invested, is there ground for assuming that their <u>total</u> (direct and indirect) effect on the demand for labor is superior? Large enterprises often have far-reaching linkages, on both input and output sides, with other producers and service enterprises, giving rise to employment opportunities exceeding any direct job creation. The Bank's Colombia Special Study estimated indirect employment effects at roughly half of the direct employment, but considered only related industrial employment, leaving aside service jobs that might be equally or more numerous. This limited analysis found wide variations among 28 individual projects, however, concluding that indirect employment effects were negative in 13 and that <u>total</u> net employment was negative in 5 of them. Estimation of indirect job creation is enormously comples, requiring comprehensive and reliable input/output data which are not available in most LDCs.

3.06 There is some basis, nevertheless, for the hypothesis that SSIs generally have greater indirect domestic employment effects also, due in part to the greater propensity of large firms to import both capital goods and raw materials. Small firms generally require a much lower proportion of imports than large firms, and the substitution propensity of larger companies--in terms of imports, of replacing traditional products of driving out smaller firms--is evident in the economic history of many countries, including LDCs.

3.07 A basic question is whether this characteristic of SSI, in terms of lower capital cost per job, carries over into other measures of factor use. Although fully reliable data are hard to come by, the available statistics seem to indicate that generally as firm size increases: (a) capital investment per worker rises, (b) value added per worker rises, (c) the wage rate rises, and (d) value added per unit of capital falls. (See Annex 1.)[1/] Evidence from a number of developing countries reinforces this point, viz., that ". . . small enterprises with a lower level of investment per worker tend to achieve a higher productivity of capital than do the larger, more capital-intensive enterprises."[2/]

3.08 This observation bears investigating, at the level of the firm and across different industries, to throw light on elements such as management specialization and production economies of scale and relate them to total factor efficiency. There are vast differences in technological requirements for the production of goods, and the range of choice with respect to plant scale and capital intensity is very wide. Total factor productivity is a

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1/ Table 3 in Annex 1 shows a break in the trend for the very smallest Japanese firms, possibly reflecting capital indivisibility and hence its underutilization below a certain minimum scale of operation.

2/ Small Scale Industry in Latin America, United Nations (1969), p.56.

function of labor, capital, scale, and management skill. Some goods can be produced at reasonable unit cost on the basis of very small quantities, while others require sizeable production runs. Characteristics such as size, weight, handling requirements, and perishability may constrain marketing possibilities to a limited area, moreover, and prevent high-volume production even when scale economies might be feasible. Research can help to identify industrial activities that are natural candidates for SSEs.[1/]

3.09 More important than manufacturing industry, as sources of urban employment, are a wide range of service occupations. It is estimated that services engage three times as many gainfully employed persons as manufacturing. Many of them serve industry directly; almost all depend ultimately on industrial (or other) goods production to sustain them. It appears that the ratio between manufacturing and service jobs is relatively constant, over a wide range of urban economies and variations in the level or capital intensity of industrialization (see Annex 1, paras. 18 and 19). The creation of additional jobs in manufacturing at low capital cost per worker may therefore be expected to have a multiplier effect, creating further service jobs at even lower cost.

B. Other SSE Attributes

3.10 Finally, there are other well-known arguments, difficult to quantify, favoring the support of small enterprises. They include the role of SSE as "breeding grounds" for entrepreneurial development, as generators of savings, as sources of stability and coherence to communities, as means for reducing inequalities of income distribution between regions and economic groups and as

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1/ For example, a recent series of monographs analyzes a number of sub-sectors --textiles, garments, wood and leather products, ceramics, optics, toys and electrical goods, each broken down by major product categories--to assess their potential for development in Africa, to be exported mainly to European markets. For each product category, investment requirements (physical and human), costs, value added, profitability and markets are compared under European and African conditions, respectively. (Societe d'Etudes et de Developpement Industriel, Activities de Main d'Oeuvre: Transferts Industriels vers les Pays en Voie de Developpement. Geneva, 1976.)

production systems generally involving less adverse environmental impact. Other advantages cited are SSEs' potential to help stem migration to metropolitan areas, to utilize agriculture/agribusiness/industrial linkages to increase rural labor productivity and income, and to involve people at the lowest income scale in employment, ownership, and decision-making through cooperative and other community-based projects. Establishment of outlying small-scale production units, to serve markets of limited radius or as sub-contractors to larger industry, may also help significantly to reduce industrial concentration, and correspondingly the mounting cost of municipal services.

C. Problems of SSE Development

3.11 While there is a prima facie case that SSE can operate as efficiently as large enterprises, or more so, for various political and institutional reasons SSEs are often handicapped.

> "While small enterprises pay lower wages, they face very much higher prices for capital than large modern units. It also seems that the small scale sector has been neglected by government policy in most countries. It is typically the characteristic products of large scale industry which have had very high protection, and it is partly this which has enabled them to pay higher wages (also, higher wages enable them to have a more skilled labor force with lower turnover -- so that higher wages do not always imply higher labor costs in terms of efficiency units of labor). The small scale sector's frequent lack of access to subsidized credit, the extremely high interest rates prevailing in 'curb' markets, and greater difficulty of access to licenses and consequent resort to black or grey markets, has probably outweighed the fact that they could evade some taxes and pay lower wages for a labor force which is often of lower quality. Small units operate largely beyond the threshold of government regulation." 1/ --and often of government assistance.

3.12 The specific problems of SSE development must be distinguished as between modern, organized small industries and services (the first two categories defined in para 3.01 above) and the informal sector. The former typically fit into market niches and channels, and have a fairly solid internal management and levels of technology and organization well-adapted to their clientele. Their needs for investment and working capital are met largely from internal cash generation and personal savings rather than institutional sources; their savings propensity is high, But

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1/ Urban Poverty and Employment (IBRD draft, 1976), p. 50.

lack of technical know-how and access to supply and credit facilities inhibits their obtaining a wider market.

3.13 The major share of existing and potential non-agricultural employment in most developing countries, however, is outside the modern industry sector--in repair work, artisan production, market vending, local transportation, handicrafts, custom jobbing, construction, and small-scale processing of primary products. Generally they are handicapped by a small production base and poor purchasing, production and marketing organization. Individually they cannot afford the chunks of capital and specialized personnel needed for design, sales promotion, bulk raw material purchase, etc. Their inability to develop products, expand markets or reap benefits from scale economies in infrastructure keeps them small.

3.14 In the informal sector (and sometimes at the margin of modern sector) most SSEs depend on middlemen/moneylenders for working capital and personal emergencies. These ubiquitous informal intermediaries also help fill certain of the marketing and supply gaps that trouble SSE, but at high cost and sometimes in a manner that restricts upgrading of products or outlets. The middleman offers the needed finance, but only in small amounts and on short term, and locks the SSE into a marketing arrangement by which repayment is deducted from the selling price. If output is unsatisfactory or payments lapse, the middleman can sever the relationship without having made a major financial commitment. While middlemen generally have good market links and information, and are responsive to market trends--often more so than government agencies--they tend to take a short-term view. They are seldom aggressive marketers, but cater to known outlets and are slow to suggest design changes. They rarely lend for fixed investment needs.

market trends--often more so than government agencies--they tend to take a short-term view. They are seldom aggressive marketers, but cater to known outlets and are slow to suggest design changes. They rarely lend for fixed investment needs.

3.15 For many small producers obtaining material inputs poses major problems: poor access to imported and domestic materials; inadequate cash or credit for economical and timely purchases; inferior quality of raw materials and intermediate processing, which reduces the value of finished products; remoteness, which (combined with cash deficiencies) forces artisans to spend disproportionate time fetching small quantities; and great vulnerability to absolute shortages. The middleman is often an unreliable supplier.

3.16 SSEs, especially informal or marginal ones, generally lack access to improved production technologies. For artisans catering to a limited neighborhood market, this may not be important. Their skills and general-purpose machines (if any) can readily adapt to changes wanted by their undemanding clientele. If, however, they attempt to widen their markets a modest technological breakthrough may be necessary--e.g., small cobblers might produce for the general market, even for export, if provided with simple cutting, skiving and stitching machines. The more stringent quality standardization, price and minimum contract requirements of new markets often force small producers to upgrade their skills and/or use more specialized machinery.

3.17 Infrastructure and services available to SSE--power supply, water and sewerage, access roads--often are inferior. For many, especially in the informal sector, this is not a serious present problem. Indeed, their ability to function without such services may help to protect their market niche from

more powerful competitors. But again, these deficiencies will obstruct their growth and transition to a "formal" mode of operation.

Inter-sectoral Linkages

3.18 Large and small enterprises are not mutually exclusive alternatives; they can be mutually supportive, as in Japanese economic development and in the Chinese strategy of "walking on two legs" (Annex 1, para. 7). SSEs may also make for more efficient linkages between industry and the agricultural and other sectors. To take full advantage of these complementarities it will be desirable to mitigate the special handicaps to which SSEs are subject, so that they have reasonable opportunity to function (and for the market to test their efficiency) in those sub-sectors or niches of the economy where they could compete effectively on an equal footing.

IV. INSTITUTIONAL SUPPORT FOR APPROPRIATE TECHNOLOGY AND SSE

A. Governmental Policy and Preferences

4.01 A first, and major, requirement is to remedy the price and incentive distortions cited in para. 2.04 above, which tend to favor capital-intensive technology. The existence and weight of these biases are amply documented in World Bank reports and in the literature of economic development. They stem largely from Western technological concepts, widely advocated and accepted both by development "experts" and by the governmental and business elites in the LDCs during the first two postwar decades. They have come under increasing political and intellectual criticism, but they are deeply ingrained and, moreover, correspond to powerful interests. To redress the balance will require major, sustained efforts to inform and persuade opinion leaders, administrators and businessmen in the LDCs, and to undertake and disseminate solid research on technological alternatives.

4.02 Public policies in many countries give the larger enterprises in manufacturing or other sectors, still other advantages over SSEs. The most common is the supply of institutional credit at artificially low interest rates. Public services -- power, transport, water supply -- that are used much more by large than by small firms also are frequently subsidized; so may be the cost of premises in industrial estates. Skilled workers trained in vocational schools at public expense generally gravitate to large, modern establishments, whereas the artisan usually bears apprentice training costs himself -- perhaps, however, obtaining a superior result. Some element of the advantage for large firms will persist, even if governments try to avoid discriminating, because SSEs will seldom be as capable of dealing with governmental or institutional procedures, gaining access to scarce supplies, developing marketing

contacts, etc. So "getting the prices right" is not sufficient in itself but it is a major first step toward rationality in investment decisions -- by financial intermediaries and even more by private or public sector entrepreneurs.

4.03 Typical industrial development incentives -- customs exemptions, tax holidays, subsidized credit -- principally aid the larger (or at least modern) industries, not the generality of SSEs. Promotional efforts for the latter need to be pinpointed more specifically toward overcoming their handicaps and enhancing their advantages.

4.04 Procurement. SSEs can often compete effectively for supply by public or private agencies of standard items -- e.g., hospital beds, office furniture, school equipment, uniforms and tools. A number of countries systematically direct part of government procurement of such goods to SSE. In India for instance, 192 product-types are reserved for exclusive purchase from small enterprises; in 1973, 21,000 SSE were participating in the "Government Stores Purchase Program" (but total procurement from SSE

amounted to only 6% of total purchase value). In Botswana and Lesotho thriving exporters of garments, sponsored by the local SSE intermediary, got their start through domestic contracts for police and school uniforms.

But for SSEs to benefit from such contracts, some entity needs systematically to call their attention to tender notices, to help them fill out the forms and provide other rechnical assistance, perhaps to intercede with the authorities against unduly restrictive specifications or contract conditions, and to provide finance (including working capital) when needed.

4.05 Subcontracting. In most countries the tendency has been for large, integrated industries to displace to displace small fabricators. However, the latter, while perhaps not financially capable of manufacturing complex final products, could often supply essential components and intermediate goods to large firms, if permitted and assisted to do so. That they do not is the result of several factors: primitive techniques, low quality and lack of capital in the SSE sector; the desire, on the part of larger firms, to control quality, deliveries and prices; advantageous rates of interest and foreign exchange for the large enterprises; and the absence of effective measures to remedy SSE deficiencies and encourage their use. Some countries have avoided or overcome these distortions. In Japan a symbiotic relationship has developed, by which some 60% of the small- and medium-size manufacturing firms are engaged in subcontracting for larger corporate customers.[1/] Korea has had more recent success.

4.06 Promotion of subcontracting is a practical and cost effective means

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1/ See Annex I, Table 1 and Chart. With assistance from the Bank's Tokyo Office, contacts have been established and information is being assembled with a view to assessing how Japanese experience might be useful for other countries.

of delivering technical assistance to SSEs, as well as assuring markets for their output. Examples in Japan, India, and Latin America are extensively documented -- ranging from provision of blueprints (or models for those who cannot read drawings), to design and fabrication of suitable machine fixtures, to advice on appropriate machinery, raw materials, and the application of new processes, to intensive help in technical and managerial problems. Institutional support for subcontracting can provide brokerage services to try to match needs and skills of large and small producers, staff or facilities for quality control and design work, and specific technical training to upgrade the skills of SSEs to make them attractive partners to larger enterprises. DFCs could explicitly encourage their larger clients to consider such collaboration with smaller firms in lieu of developing in-house capacity to produce intermediate inputs. Policy support may be needed in the form of protective legislation for the subcontractors (model enforceable contracts and requirements for timely payments), uniform technical standards, incentives encouraging decentralized expansion, etc.

4.07 Industrial Estates projects usually do not cater specifically to small industries.[1/] In many countries the mixed estate, providing space and facilities for a wide range of sizes, is likely to be the best model. It may facilitate subcontracting, or transport or maintenance service relationships, between small and large units. It may also be financially more viable, with more stable occupants having greater rent-paying capacity. However, mino-industrial estates can be helpful in the transition of SSE from the

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1/ Of four so far financed by the Bank only one (in Yemen) is for SSI; those in Pakistan and Mauritius are designed for medium and smaller units.

informal sector to more solid commercial status. In Botswana, numerous very small (formerly household) enterprises are grouped by product categories in several zones -- textiles and clothing, leather goods, metal fabricating, building contractors -- each with specialized technical assistance, joint procurement and equipment for common use. However, industrial estates are not essential for this purpose. Often coordination and common services may be provided at less cost by establishing the services in a central place, leaving producers at their existing sites if these do not seriously inhibit growth. Industrial estates sometimes prove ineffective instruments for SSE development because they are located outside the town, cut off from general urban services and remote from their workers or their customers.

B. Institutional Lending Policies

(i) Broadening Sector Coverage

4.08 The foregoing discussion related mainly to the modern manufacturing sector, which has been the principal object of lending by DFCs (not only those assisted by the Bank). Other kinds of productive activity, however, may offer equal or greater job creation relative to investment cost, and could benefit from institutional finance. For example,

(a) construction, especially financing of contractors' equipment and supplies;

(b) transportation -- bus and trucking services, taxis and jitneys;

(c) warehousing and distribution -- regional and local depots for grain collection and storage, and fertilizer and building materials distribution;

(d) retail trade of all kinds, down to the corner kiosk;

(e) fisheries -- vessels, gear, ice plants, etc.

(f) forestry -- extraction and transport equipment, as well as sawmills and processing of forest extracts;

(g) maintenance and repair facilities -- garages, machine shops;

(h) organized services -- e.g., garbage and trash collection or building maintenance in the cities, and/contract plowing, spraying or well-drilling for commercial agriculture;

(i) personal services -- restaurants, barber shops, laundries;

(j) tourism activities -- not only hotels but travel and guide services, tour buses, folklore exhibits, etc.; and

(k) arts and crafts, including wholesale handicrafts production.

4.09 Some recent Bank projects deal with sectors outside the manufacturing mainstream, generally through a sector-focussed project and specialized institution. Such an approach may be necessary or prudent, given special sector characteristics and conditions with which a general-purpose DFC may not be familiar. Nonetheless, there are advantages in encouraging an established DFC, once it becomes aware of opportunities and needs in a new functional area, to employ the requisite expertise and develop appropriate lending criteria, rather than to build up a new institution from scratch; and for the Bank dealing with a known institution may also be easier than working out a wholly new relationship. Finally, there may be administrative economies and intersectoral linkages which a DFC interested and active in several fields could exploit more effectively than a single-purpose institution.[1/]

4.10 Agribusiness is a case in point. Modernizing, increasingly commercial

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1/ The SSE operations in Cameroon and Ivory Coast assist a broad spectrum of enterprises, including bakeries, metal workshops, woodworking and automobile repair facilities. The BHC in Ghana finances equipment for civil works contractors.

agriculture requires more sophisticated processing, storage and distribution networks to handle both inputs and output. These facilities, especially when tied into effective cooperative organizations, can help to reinforce and guarantee agricultural credits to the producer as well as financing for the middleman/ cooperative. Possibilities for such interlocking systems are being actively explored in several countries -- e.g., Mexico, India, Indonesia, Philippines, Tanzania, etc.

(ii) Construction and Housing

4.11 Repeatedly the Bank has emphasized its importance to economic development; and in some developing countries construction capabilities have become internationally competitive. For most civil works, locally-based contractors should normally have comparative advantage and produce a good return to the national economy. Expansion of construction activity, using domestic inputs to the maxium extent, is probably the surest means of creating additional employment quickly and consistently (assuming effective market demand).

4.12 In urban areas, on average, six to eight percent of the labor force is employed in construction of residential, commercial and industrial buildings. Most are unskilled and come from lower income strata. Large and small firms exist side by side and the industry is an important source of entrepreneurial talent. Construction techniques are generally labor intensive, and local materials are used. The industry frequently suffers, however, from inadequate supply of materials, partly the result of price controls and other administrative measures. These supply problems, combined with minimal financing of working capital for small firms, favors larger firms using more capital-intensive techniques and imported materials.

4.13 The Bank and DFCs could help to remedy these problems through assistance both to building materials industries and to small contractors. For building materials industries this would mean lending to smaller firms producing a variety of construction inputs. For small contractors the need is mainly working capital and some technical assistance. It will not be easy to reach these groups; firms enter and leave the industry with great rapidity.[1/] Financing might be provided through the commercial banks, specialized institutions or informal channels (para. 4.30). Publicly financed projects (including Bank projects in urban areas) can encourage the use of small firms through appropriate design and tendering features (e.g., revolving funds to insure that small contractors are quickly paid for work done) and support of appropriately designed housing schemes. In summary, the steps that need to be taken are an extension to the building industry of measures by which the Bank is supporting the contracting industry in general (No. R76-1). The labor-intensive nature of the industry makes it an important vehicle for improving the productivity of the urban poor.

4.14 Housing and home improvement may be especially effective contributors to greater welfare for the urban poor. Apart from creating employment for construction and building materials workers, much of the work can be done by the occupants themselves,[2/] given the required materials and limited amounts of skilled labor. Benefits in terms of improved health, comfort and morale are demonstrably substantial; and housing

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1/ In Botswana the SSE promotion agency has sought to introduce more stability through provision of office sites, common procurement of standard construction materials and some TA in accounting; local contractors have thus been enabled to compete successfully on small civil works, previously monopolized by foreign-based firms.

2/ Productive "employment" is not confined to work done for wages.

improvement is an important incentive to saving.

4.15 Demand for housing has been limited in many LDCs by the circumstances

(a) that long-term financing is often unobtainable, very costly, or heavily subsidized (and hence severely rationed);

(b) that standards for government-financed housing are usually too costly for those most in need, or even the majority;

(c) that charges for urban services tend to be skewed to favor upper-income groups; and

(d) that institutional structures, both technical and financial, are generally weak.

4.16 Sites and services projects, with minimum unit costs, can help directly to ameliorate the housing situation of the poor. Conventional housing finance schemes, with resources derived mainly from personal savings have shown promise in some LDCs; they cater to middle income levels, but in doing so create jobs for the urban poor. Possibilities for extending this approach more widely -- emphasizing especially its potential for encouraging popular saving -- should be actively pursued.

(iii) Working Capital.

4.17 For most SSEs, working capital is the main financial constraint. Statistics for Colombia show working capital constituting 74% of project cost for small enterprises, 18% for medium/large firms; in the informal sector, it may be almost the entire investment. It is needed to purchase bulk quantities of raw materials when prices are low, and also to finance holding of work in process and finished inventories during slow demand seasons;seasonal working capital is critical for industries serving a rural population dependent on crop returns. In both cases, a working capital buffer permits steadier production and fuller use of capacity, thereby increasing jobs and earnings at minimal cost.

4.18 Bank policy, and usually that of DFCs, has limited the use of loans to acquisition of fixed assets and "permanent" working capital. This is generally sound practice for institutions whose role is primarily to finance fixed investment, but it is also in the interest of such institutions to ensure that working capital required to meet seasonal and occasional, as well as expansion, needs is provided somehow to their clients. Collaboration to this end, between DFCs and commercial, cooperative or special-purpose banks, should be encouraged. Conventional DFCs might open a new window, with appropriate criteria, for short-term working capital finance to modern SSEs.

(iv) Collateral Requirements

4.19 Most non-conventional financing techniques are attempts to overcome the SSEs' lack of collateral to satisfy the requirements of formal institutions.[1/] BOA in Egypt requires no collateral from SSEs, relying only on an honor code enforced by their socio-ethical environment to induce repayment, without undue losses so far. The collateral problem may be approached in several ways. Rental of premises and equipment reduce the loan, and hence the collateral requirement. Hire-purchase arrangements in part embody their own collateral. New forms of security such as life insurance certificats or cooperative guarantees may be introduced. For many types of SSE the prospective cash flow is a more reliable safeguard than conventional collateral. Government guarantee funds help to reduce the preoccupation with collateral (para 5.07).

4.20 A different approach is for some agency to provide collateral (funds or equipment) directly to promising entrepreneurs either as equity participation -- which the entreprenur might be entitled

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1/ One reason why many small enterprises resort to high-cost borrowings from the curb market is that whatever collateral they have is preempted by institutions from which they have borrowed previously. The formal credit institutions quite usually require collateral with value a multiple of the loan amount.

to buy back on specified terms once he got established--or with a contingent liability for repayment depending on the enterprise's profitability; exceptionally an outright grant of seed capital might be justified to get a high priority industry or service started or to keep it going.

C. Potential Institutional Channels

4.21 Institutional channels to promote SSE and urban employment objectives should certainly include some of the DFCs that have been the main intermediaries for past Bank financing, and others of similar type. But various other organizational patterns and operational styles are being considered in the search for maximum flexibility, coverage and contact with the target groups.

(i) Conventional DFCs

4.22 Employment considerations do not seem hitherto to have had much weight in project planning by Bank-financed DFCs (Annex 2) but a number of them have recently shown interest in shifting their emphasis toward (a) favoring more labor-intensive technologies where feasible, and (b) assisting smaller enterprises in the modern productive sectors. Ideas and examples from DFCs that show superior flexibility and innovative capability can be fed back into the worldwide DFC information network with a view to stimulating other institutions. As some DFCs have pointed out, however, their capability to influence the choice of technology toward more labor-intensive alternatives may be limited. Usually they get involved in project scrutiny only after the sponsoring entrepreneur has reached a fairly firm decision as to process and equipment, influenced by many factors -- including government incentives and interest rate policies, the problems of managing and training a large work force and the prospect of labor disputes, the equipment's performance record and servicing arrangements, and so on.

4.23 Nevertheless, there is potential for constructive influence by DFCs on the choice of scale and technology, in four ways:

(a) by taking explicit account in sub-project appraisals of the employment effects (positive or negative) of technology choices;

(b) by identifying, and encouraging clients to explore, possibilities for sub-contracting, and helping to work out collaborative arrangements;

(c) by helping sub-project sponsors to gain access to the knowledge available worldwide about technologies appropriate to factor proportions in particular countries; and

(d) in some cases, by financing the development of promising adaptations of superior technology to local conditions.

Their effectiveness in performing these functions would depend in major part on governmental policies.

4.24 The adequacy and accessibility of information on technology alternatives leaves much to be desired. Industries patterned on conventional Western, Japanese or Russian models can take advantage of these respective sources of technology (and of their promotional efforts). Finding or devising more appropriate technological solutions is harder. Investigation of such alternatives in product design and production processes is still limited in scale and rather widely dispersed -- although in a few countries (e.g., India, Korea and the Philippines) government agencies give considerable help to DFCs. There is also increasing interchange, through international organizations, among the consulting fraternity and a few data banks, but "appropriate technology" information referrals continue to be an ill-served sideline for several

uncoordinated aid programs.[1/] We recommend that the Bank, on a trial basis, sponsor and support a central clearing house -- drawing upon the various technical data and research resources now available -- that could help to systematize and economize the international exchange of appropriate technological information. This proposal for a Technology Referral System (TRS) is set forth in more detail in Annex 3.

4.25 Mechanisms also need to be created or strengthened in the respective LDCs, whereby entrepreneurs and financial institutions could be informed about the availability of appropriate technology for both production and product design. Such information may be available in the country from trade associations, technology institutes, universities and productivity centers. Where such institutions are inadequate the Bank can help. National mechanisms would extend and strengthen the suggested international network; and for them ready access to information already compiled, about other relevant country situations, could avoid duplication -- and perhaps inspire further adaptations.

(ii) Other Intermediaries

4.26 Many of the DFCs such as the Bank has usually assisted would find it hard to lend to very small enterprises, and even less to the informal sector. Such activity is fraught with problems and risks that a conventional DFC may be ill-equipped to assess. The project appraisal techniques which the Bank has evolved and inculcated into its DFC clients over the years are too elaborate for very small projects. We need, therefore, to look also to new,

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1/ Cf. A.S. Bhalla & F. Stewart, International Action for Appropriate Technology (ILO, 1976), p. 183.
"Existing institutions concerned with technological development are often working as isolated units, with little communication between them or co-ordination of their activities. The absence of a Worldwide communication network reduces the effectiveness of their work, leading to duplication and weak dissemination.
"There is need for an international institution -- An International Appropriate Technology Unit -- to provide a means of co-ordinating and disseminating work on appropriate technology on a worldwide basis and to foster, encourage and disseminate new R and D to meet the basic needs strategy."

differently organized entities.

4.27 Commercial banks, in particular, could be suitable intermediaries.[1] They usually have a branch network that can be more responsive to small enterprises than the more centralized DFCs. They can better assess personal qualities of the borrower and local business conditions. Furthermore, given that many small enterprises primarily need working capital, commercial banks could usefully combine their own short-term funds with longer-term finance from the Bank.[2]

4.28 Commercial banks are reputedly wary of financing small enterprises in view of the costs and risks involved. In many countries legal limits on interest and other charges prevent their covering costs. Some banks, however, are making a vigorous effort in this area, and numerous governments are applying pressure or giving incentives for them to do so. In some countries, X percent of the commercial banks' resources must be allocated to the SSE sector, as locally defined. In others, cheap money is made available to the banks for such purposes. Generally, the government guarantees the banks, in major part, against loss. Preliminary indications are that a combination of ready access on favorable terms to government (or central bank) resources, plus a guarantee covering 50% or more of the risk of defaults, should generally give adequate inducement for commercial banks to seek SSE business. Part of the repayment risk should remain with the lending banks, to encourage effective supervision and loan collection efforts.[3] Collateral substitutes should be actively sought.

1/ Bank Group projects in Bangladesh, the Philippines and Kenya, and another planned in Indonesia, rely mainly on commercial banks as financial intermediaries.

2/ This calls for synchronization of credit terms, since it is not unusual to find that short-term interest rates are significantly higher than long-term rates.

3/ Commercial banks, may, in fact, be better at this than DFCs, since: (a) they may have a stronger tradition of hard-nosed collection efforts, and (b) their clients often have to come back at short intervals for additional loans or renewals, whereas the DFC client may need no further long-term funding for 5-10 years.

4.29 Investment companies. For smaller (modern) enterprises, provision of seed capital, and hence the role of investment companies, may often be crucial. In the Bank's experience, government-controlled DFCs have generally been more attentive to this need but over a longer history and wider range, private enterprise has prided itself on promotional capability and success, and its potential should not be ignored.

4.30 Funding of seed capital is often a critical determinant for a sound capital structure, and essential to obtain institutional credit. Government support in India has provided seed capital facilities at the state level (through the SFC Special Capital Fund) and at the national level (through IFCI's Risk Capital Foundation); Indonesia, Kenya and other countries have established equity funds to help their nationals establish enterprises; but the experience in all these cases has been too brief to draw confident conclusions. The Bank may also help on occasion to increase the flow of equity capital.[1/]

4.31 Other Financial Institutions. The Bank Group is beginning to explore actively the establishment of operating relationships with mass-oriented intermediaries[2/] such as workers' banks, savings and loan institutions, credit unions, and institutions like the Popular Credit Bank (PCB) in Syria and the Citizens National Bank in Korea (CNB). Their ultimate potential as channels of finance to the lower end of the enterprise and income scale seems promising. In countries where they are effective they have a broad-based and loyal clientele. They are accessible to the small borrower and better able than more remote institutions to assess his needs and merits, to keep track of his performance, and to give advice when

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1/ The sixth loan to the Colombian financieras included a $5 million component making it more attractive for the financieras to assist enterprises through equity investments, but its use is still limited.

2/ Such institutions are likely to be used in Bank Group projects planned for Colombia, the Philippines, El Salvador and Pakistan.

necessary. Sometimes they can obtain collective guarantees for loans; in any case their relationship to the community helps to reinforce the moral obligation of borrowers to repay. They facilitate and encourage popular saving.

4.32 Where such intermediaries are lacking it may take time for them to get established and develop community contacts and confidence. This process can be accelerated in the context of integrated urban development projects which focus the common interest and encourage other, related group activities, and where the project management can give organizing impetus and guidance. The local entity so incubated might then become a nucleus or model for a wider network. This would not exclude efforts also to organize on a broader scale from the start, where conditions are propitious. In the latter case an apex institution or a central bank would have to be assigned the dual function of providing rediscounting facilities for the local intermediaries and of supervising and upgrading them.

4.33 Cooperatives. The Bank has some experience with rural cooperatives, but little with those in urban/industrial activity.1/ The success of cooperatives in the LDCs has been quite uneven. They require an especially high standard of dedication and integrity of leadership, assiduous training and supervision to maintain this standard, and continued education and motivation of the membership. Potentially, however, they could be enormously useful as a source and channel for SSE initiative and credit programs, a security and collection mechanism for loans, a delivery system for technical assistance, and a means for joint procurement and marketing. As cooperatives develop in the urban environment, moveover, they may establish mutually advantageous

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1/ The Bank recently sent a mission to India to explore with several institutions which have extensive experience in assisting industrial and agribusiness cooperatives, possible ways of using such organizations in a broad attack on urban poverty (see Annex 4). The Indian experience with cooperative organizations is especially rich and mixed as to performance.

links with cooperatively organized rural production and distribution systems -- as an alternative to the traditional middleman.

(iii) Informal Sector Channels

4.34 Middlemen/Moneylenders play a significant role at the margin even in advanced economies; and in the LDCs, especially for SSE in the informal sector, they are crucial sources of credit for consumer and producer needs, at interest rates often exceeding 50%. Moreover, they often provide indispensable links to raw material sources and to larger markets. Until institutional support offers a similarly comprehensive flexible and convenient package, middlemen are likely to be needed.[1/] Possibilities for using them constructively, as channels for financing and services, should be explored, initially in the somewhat controlled context of urban projects. In any case the techniques and criteria used by curb market operators for loan decisions, supervision and securing repayment deserve study by agencies financing SSE, especially in the informal sector.

4.35 Integrated Programs/Projects. An effective means of meeting the needs of poor people, in both urban and rural areas, may be through an intersectoral approach, with mutually reinforcing project components -- including construction, production credit and tools rental facilities, services and technical assistance. Potential entrepreneurs may be identified in the community and given special training, stressing bookkeeping and rudimentary merchandizing skills. Work- and employment-oriented literacy courses could be helpful for a wider target group. The Philippine Urban project comprises diverse, interrelated elements; and the Bank's DFC units are working with Urban Projects and Rural Development, respectively, to prepare integrated programs of urban and rural development in the Ivory Coast, Upper Volta, Mexico, Pakistan, and Indonesia. In tourism operations, support for local artisans, handicrafts and other aspects of popular culture (music, dances) are frequently included.

1/ During the mid-sixties, the Korean Government fought a hard battle to drive moneylenders out of business. For a while it seemed that the Government would win, but the curb market rebounded and is now alive and well, more so than before.

4.36 A problem with such integrated projects is their complexity, in both conception and administration. Coordination of the different disciplines, time horizons and bureaucratic interests involved, within the Bank and in the project management, can be extremely difficult. But this complexity reflects the intricacies of social organization and relationships, of community realities; and an approach based on these realities has a validity and appeal that more simplistic conceptions lack. The necessary continuing linkage among the diverse elements of integrated projects calls for highly flexible, sensitive intermediaries on the ground.

D. Savings Accretion and Mobilization

4.37 The savings potential in SSE development of all kinds, and in programs related thereto, deserves special emphasis. As has been mentioned, small entrepreneurs apparently have a high propensity to save as their earnings rise above minimum requirements; and they are likely to be increasingly so motivated if there is a realistic prospect of supplementary credit on reasonable terms, to enable them to make a desired investment with good profit potential. If, as a result, their productivity and earnings should increase, one could expect much of the increment also to be saved -- and perhaps deposited in the same neighborhood credit institution, further reinforcing community linkages.

4.38 In all kinds of programs for integrated urban development, for housing finance, for cooperative production and marketing and the like, the importance of savings should be stressed, and accessible and reliable facilities for that purpose built in. Interest rate policies should also be designed to encourage saving. People's lending institutions might give preference in the extension of credit -- e.g., for home improvement -- to

depositors of a specified minimum amount. A lottery feature to allocate loans for standard purposes in high demand (housing, transport vehicles) may also create the incentive for deposits.

V. COORDINATION AND DELIVERY OF FINANCIAL AND TECHNICAL ASSISTANCE TO SSE

Delivery of Financial and Technical Assistance

5.01 SSE encompasses such a variety of industries and services -- modern urban factories producing diesel engines or electrical goods, bakeries and bicycle repair shops in market towns, truckdrivers and market vendors, craftsmen serving the local needs of a city slum or a village, and artisans making handicrafts for export -- and such diversity in markets, sources of raw materials, levels of technology and patterns of location and organization that it is not possible to prescribe common needs for institutional support or delivery systems. A first general requirement, however, is for means of distinguishing genuinely (or potentially) productive units from a mere spreading of a constant amount of work. For assisting the former category some combination of financing and non-financial assistance (TA for short) is usually needed, and it is important that the two be effectively coordinated to reinforce each other. But the nature and emphasis of the mix, and the way assistance is organized and funded will vary widely for different types of target enterprises and problem situations.

5.02 The array of agencies that offer TA for SSE development is itself rather formidable. Table 2 presents a preliminary summary listing of international organizations active in this field. It is not exhaustive; our records are incomplete, and new initiatives are emerging every month.

TABLE 2

SYNOPSIS OF INTERNATIONAL TECHNICAL ASSISTANCE AGENCIES

(a) by type of TA needed

Cooperatives	ICA, ILO, Technoserve, IVS
Industrial Estates	UNIDO, SRI
Subcontracting	UNIDO, IACME, APO
Technological Advice and Referral	Georgia Tech, ITDG, UNIDO, CIDA, VITA, IRRI, JCI, APO SRI, CIDR, Technonet, FRIDA
Handicrafts/Cottage Ind.	ILO, UNDP, SRI, SIDR, IACME, AVAP
Agro-industry development	ITDG, Technoserve, ILO, IID
Training of:	
- managers/entrepreneurs	ILO, UNIDO, AITEC, Technoserve, IID, INED, Georgia Tech, Technonet, IVS, IMDI, APO
- workers	ILO, UNIDO, AITEC, ORT, IVS
- extension workers	ILO, UNIDO, UNDP, AITEC, ITDG, Georgia Tech, SRI, IRRI, E-W Ctr, ORT, TETOC, IVS, IMDI, APO
Institutional development	
- management & organization	ILO, UNIDO, SRI, UNDP, Technonet, TETOC, AITEC, IMDI, FBDB
- extension centers	UNIDO, Georgia Tech, SRI, APO
- productivity and R&D Centers	Georgia Tech, ITDG, VITA, IRRI, APO

(b) by regional specialization

Africa	Technoserve, CIDR, ITDG, Georgia Tech, VITA, IMDI, FRIDA
EMENA	IACME
South Asia	ITDG, IRRI, Technonet, APO, IACME
EAP	IRRI, Georgia Tech, Technonet, APO
LAC	AITEC, Technoserve, ITDG, VITA, Georgia Tech, CIDR, IACME
All regions	ILO, UNIDO, UNDP, SRI, ICA, IID, ORT, TETOC, IVS, JCI, FBDB

Notes: (a) for meaning of acronyms and more information on the above agencies, see Annex 3;

(b) the information on most of the agencies is second-hand; their inclusion in this paper is therefore not an endorsement of their capabilities;

(c) some agencies have been active in particular countries rather than a whole region as highlighted in Annex 3;

(d) the above listing is still very incomplete; other agencies which have been asked to send information on their activities include: Societe D'aide Technique et de Cooperation (SATEC) (France), Appropriate Technology Development Unit (India), Batelle Memorial Institute (USA), Arthur D. Little, Inc. (USA), Industrial Development Research Center (Canada), Research Institute for Management Science (RVB) (The Netherlands).

It is impracticable to list the many agencies or institutions in the LDCs that could provide advice or services for SSE, but such national (or local) agencies, thoroughly familiar and integrated with their varied national environments, are crucial to SSE development and to the effectiveness of external help. In the design of SSE projects and their TA components, it will be important to identify and to build in effective participation by local technical/management information agencies whose capabilities can be progressively enhanced (cf. para. 4.24).

A. Needs of Modern Enterprises

5.03 The modern, organized SSEs -- small manufacturing plants, construction, trading and transport companies, and so on-- are, of course, more easily reachable; and it should be possible for DFCs, commercial banks and other conventional entities to meet their financial needs, given appropriate policy adaptations and some supporting TA.

5.04 Apart from strictly technical matters, some modern firms will require assistance in getting established and getting finance(feasibility studies, project preparation, choice of technology and equipment, setting up accounts, etc.) and in their current operations (market information, management training, subcontracting brokerage, dealing with government regulations, etc.) These problems tend to be most acute at the frontiers between the informal and the modern sector, and enterprises attempting to make this transition need capable help.

(i) Organizational Alternatives

5.05 There is no unanimity among the "experts" in SSE development as to the most appropriate relation between the technical information/advisory services and the administration of credit, at the level of their combined application. Alternatives are:

(a) The TA agency fully integrated into a financial intermediary -- which helps ensure coordination but may prejudice the independence of financing decisions. It may also confuse, in the client's mind, the TA function with that of loan supervision and collection, making both less effective. Finally it might unduly concentrate responsibility for SSE development in a single entity, and choke off potentially useful competition and unorthodoxy.

(b) More usual, the TA agency separate, under the direction of the government industries department. This could lead to friction with DFCs or banks, with the technical agency pushing its clients' proposals in spite of financial and marketing deficiencies.

(c) A more satisfactory arrangement, in the Bank's limited experience, is a TA agency outside, but closely linked with, the financial intermediary(s) for SSE, the financial institution thus acting as sponsor of TA to its clients (actual or prospective) and of its clients to the TA agency. The entity that provides or controls financing seems often to have the most leverage (or catalytic influence) on both the other parties.

But institutional structure and patterns of influence, and the policy orientation of different government agencies, vary from country to country. The essential thing is that very close cooperation should prevail between TA (in the broadest sense) and the provision of credit.

(ii) Meeting Non-Financial Costs

5.06 Financing and TA programs for SSEs even modern ones, will cost more than programs benefiting large firms. Table 3 shows portfolio quality and profitability data for three countries where the Bank has assisted intermediaries catering to both large and small firms. The data are not strictly comparable, but they suggest that the intermediaries serving the smaller units (MIB, the SFCs and CFP) have greater arrears problems than those financing larger enterprises.[1/] They also have higher administrative costs for subproject promotion and appraisal/supervision, a reflection of the large number and dispersion of small projects. Costs of TA, provided by other agencies, are not included in these figures.

5.07 The relatively high mortality for SSE is often a predictable consequence of deficiencies in finance, technical know-how and entrepreneurial experience.[2/] The bankers' typical concern with collateral more than cash generation works against SSEs and aggravates their vulnerability. Hence more constructive and flexible (though not less hard-headed) lending criteria might improve the survival ratio for infant enterprises. The SSE borrower, if he has the means, is often conscientious in paying his debts -- so long as he is made to understand clearly, inter alia by effective collection efforts and procedures of the intermediary, that his financing is indeed a serious debt rather than government generosity. So there is ground for hope that traditions of SSE repayment will be established; but until this has been demonstrated in practice, over a considerable period of time, government guarantees will still be necessary in many countries.

1/ However, some SSE financing institutions -- e.g., the PCB/Syria, the NCB/Korea, the Halk Bank/Turkey -- do not have greater arrears problems.

2/ The statistics may exaggerate. Small enterpreneurs often initiate several activities at once -- the corresponding "enterprises" consisting of a registered name and a post box -- until one "takes off", at which point the others are dropped; in reality they were pre-investment explorations rather than genuine enterprises, but they show up in the figures as failed businesses.

Table 3

PORTFOLIO ANALYSIS AND PROFITABILITY DATA FOR SELECTED DFCs [1/]

	Korea			India			Colombia	
	MIB	KDB	KDFC	SFCs [2/]	IDBI	ICICI	CFP	Private Fin'as [2/]
a. Quality of Portfolio								
Principal in arrears over 3 months (% of loan portfolio)	3.5	2.0	2.2	9.8	0.5	2.6	9.5	2.9
Long-term portfolio affected by arrears over 3 months (%)	7.6	14.0	6.6	39.3	4.1	7.4	16.6	4.9
b. Profitability								
Spread on borrowings (%)	4.5	1.2	5.2	3.2	1.6	2.8	11.5	5.1
Administrative costs as % of average total assets	3.5	0.5	1.7	1.1	0.4	0.4	6.3	1.7
Profit before tax (but after provisions) as % of average total assets	0.2	0.6	4.6	1.9	1.6	2.6	1.2	4.1
Net profit as % of average equity	7.5	2.4	18.	8.5	9.3	11.7	4.3	16.3

1/ Data are from recent IBRD Appraisal Reports and from the Policy Paper "World Bank Assistance to Public DFCs", IBRD/DFCD, Oct. 31, 1974, PRC/S/C/74-20 (internal document)

2/ Figures are statistical means, except for the SFC profitability data which were computed on a consolidated basis.

In India assistance to small enterprises by state development banks and commercial banks has increased severalfold since the introduction in 1960 of a credit guarantee scheme, later reinforced by government pressure on the banks to extend their network to reach small enterprises. However, the guarantee scheme has been widely criticized, principally for uncertainty as to the conditions for compensation, a similar scheme in Nigeria has apparently not worked well, but has in Brazil. Studies in depth are needed to identify the factors affecting success of different schemes.

5.08 Even with good repayment performance, or guarantees greatly reducing the default risk, the unit cost of administering 100 loans of $50,000 is higher than for five loans averaging $1 million each. Different criteria and procedures clearly must be used. Some current and planned studies are seeking to distill, from the practices and experience of various entities financing small firms, quick, simple screening devices that could largely substitute for more formal appraisals. These short-cut criteria will vary in different economic/cultural environments but should include potential sales demand, unit costs and prices, raw material supply characteristics, and basic financial ability to withstand market fluctuations. Checklists with specific questions or minimum data requirements would guide the local branch managers investigation.

5.09 TA costs for the more modern, organized SSEs can be divided into at least three categories:

(a) advice associated with supervision (and protection) of the credit extended, which is in the intermediary's interest and should be deemed part of its administrative expense;

(b) technical or business advice to the client going beyond the scope of normal loan supervision or beyond the intermediary's capability -- generally a government policy/promotional function parallel to the credit program and separately funded, although the financial intermediary might be the catalyst; and

(c) more elaborate investigations or advisory services, requiring special consultancy arrangements, which might be financed from a subproject loan or (if government policy so provides) from a special promotional credit or grant.

5.10 In general, it seems preferable that TA expenditures going beyond the commentary and advice normally offered in connection with adequate loan appraisal and supervision be identified and financed separately, whether the TA administrative responsibility for TA rests with the financial intermediary or elsewhere. Otherwise, pressures and criteria for control of the intermediary's strictly administrative costs could be weakened. Adequate funding for TA of all kinds needed by SSE should certainly be provided, but the cost and financial liability (placed insofar as possible on the beneficiary) should be identified and controlled.

(iii) Financial Charges

5.11 The pattern of financial charges, and the resulting margins to intermediaries, usually reflect a confusing combination of risk calculations, administrative costs, inflationary assumptions, government strategies, and institutional policies that are inconsistent, differ among countries and change

over time. It will be useful, in the assessment of specific credit programs for support to SSE, to isolate the costs of TA and to cover the risk factor with a government guarantee. The remaining financial policy issues are complicated enough.

5.12 The question whether small borrowers should be charged less, more, or the same rate of interest as medium/large enterprises has been the subject of widespread dispute. Because of widely varying circumstances we have not been able to rationalize any clear-cut general rule. Still, some tentative judgments can be made:

(a) for most SSE in developing countries, the advantage of a few percentage points reduction in interest is less significant than access to credit on any reasonable terms;

(b) a subsidized interest rate for SSE would represent a drain on public financial resources;

(c) to attain a secure status, not permanently dependent on government favor, SSEs must be able, eventually, to survive on marketplace financial terms;

(d) the costs/risks of lending to SSEs are often higher than for lending to large, established industries, so that equivalent interest charges, in themselves, would constitute a subsidy to SSE; but

(e) much higher interest rates, fully covering the lending costs/risks, would likely encounter severe social and political resistance.

but also to encourage rational investment and managerial decisions by borrowers.

B. Needs of Artisans and Informal Activities

(i) Technical Assistance and Logistical Support

5.16 The fragmented, dispersed character of the smallest SSEs makes it extremely difficult to organize assistance to them. Informal industries normally depend on expensive support from middlemen; or are isolated, cater only to the closest markets, live from hand to mouth. They could benefit by joint organization or support services to provide an integrated package of assistance, spreading "overhead" costs over a number of formerly decentralized units. With organization around their critical unmet needs, they could reach larger markets, increasing and upgrading production capacity, and could offer banks a better credit risk.

5.17 However, the needs are often industry-specific, only superficially similar. Project preparation must look systematically at the nature of products and markets, and specific functional needs, to devise appropriate project components and grouping possibilities. Often single-industry, tailor-made strategies may be more effective than general-purpose, "catch-all" institutional or TA schemes, but given the diverse and dispersed nature of informal industries single industry support may be impractical and costly. For instance, a "full package" approach comprising cooperative production facilities, TA, bulk raw material supply, and marketing collection points could be justified for an urban or rural concentration of shoemakers, but not for scattered

village cobblers -- even though the latter may need an active integrated approach more, due to distance and difficult access to raw material supplies or markets.

5.18 When the concentration of informal SSEs is not sufficient to warrant common services, more intermittent information and advice on specific marketing, procurement, technical or organization matters might be provided -- the emphasis necessarily on general needs of diverse industries and services. Scale economies and a more focussed strategy might be achieved by selecting for concentration a few major industrial lines, potential or existing, in each area, using standard investment and management packages for credit and new SSE promotion. Also, extensionists can help form loose associations among eixsting producers -- e.g., for village blacksmiths to organize joint purchase and transport of scrap metal, common sales outlets, and training and information-sharing seminars on improved equipment to reduce costs and improve marketability of agricultural implements. In this way, small single-industry networks could develop that depend on ousdi outside help only for initial organization and subsequent trouble-shooting.

5.19 Service industries (e.g., commerce, local transport and repair) usually require less institutional support; nearly all cater to local markets, require few raw materials, and have flexible, autonomous organization. Access to working capital and investment credit is usually the main requisite.

Cooperatives or associations can provide broader distribution of earnings, possibilities of increasing services and some wholesale purchasing economies. But integrated support and active intervention is usually more difficult and less effective in the services than for manufacturers.

5.20 Marketing tends to be the major problem of most small manufacturers and the starting point for project intervention. Small firms often lack direct access to larger, lucrative markets; distances, poor quality and design, limited production capacity, and lack of information about potential niches impede their gestation and growth. Firms at a distance from markets, in rural areas or small towns, need institutional support to provide information on growth markets and related design, price, and quality requirements; joint collection points with quality control; and common transportation. Firms closer to the market can get much of the information themselves and economies in transport are less significant.

5.21 Another important factor is the length of the product life cycle; if, as in fashion and high technology items, the characteristics and designs of products must respond rapidly to changing demands, then small, decentralized industries will need close vertical coordination to provide quick diffusion of market demands and corresponding design and technology changes. Likewise, tight organization of collection points, quality control and delivery will be needed. On the other hand, for a standard product (e.g., of grain mills, tanneries) assistance in distribution may be necessary, but quick, tight market information and coordination is less critical.

5.22 When informal producers move into more demanding markets, they often need special TA to make the transition to reliably improved quality. In cases where SSEs have vigorous management they can often find their own

market niches, arrange storage and transportation, and convince commercial banks to lend for working capital needs. However, such skills are scarce in most countries; most small producers work through middlemen or for local consumers, and have little knowledge of broader market potential and requirements. Attemptsto replace the middlemen with government or cooperative marketing structures have sometimes proved more clumsy and done little to improve the artisans' market contacts, knowledge or autonomy.

5.23 Raw Materials often make up 50-80% of the cost of goods sold by SSEs, partly because their supply is costly and of inferior quality, detracting disproportionately from the final product value. Artisans must buy hand to mouth, often squeezed by seasonal or chronic shortage; provision of working capital could greatly improve their position and productivity. Government policy should avoid discriminating against SSEs in access to raw materials, import licences or government-purchased imported stocks.

5.24 Backward linkages from SSE to the agricultural, livestock, fisheries and forestry sectors are important, especially introduction of techniques and incentives to upgrade intermediate processing and handling, which could greatly increase the value added at each stage. For instance, improved tools and techniques for flaying and initial preparation of hides in India could double their value and enhance the range and quality of markets for finished leather products.

5.25 Technology is often stressed unduly by SSE extension networks, relative to marketing, organizational and raw material needs. Capable artisans in LDCs have generally undergone long apprenticeship and are technically knowledgeable and adaptive. Still, some forms of technological assistance could well increase the competitiveness of SSE or enhance the use of local resources. Existing labor-intensive equipment can be introduced selectively and made accessible to SSEs by extension work, hire/purchase arrangements and investment credit. Introduction of basic equipment may give a major impetus to a small, unorganized producer, provided his other requisites are met, opening up new markets and at the same time imposing stricter quality, price and minimum contract requirements that call for further upgrading of his skills and/or equipment. At this transition point, the SSE may need TA in selecting machines, a short practical course on their use, introduction to methods of quality control. TA can be important in subcontracting arrangements; for instance, light engineering SSEs can benefit by joint quality/testing equipment, and R & D workshops for developing proprietary or joint products.

5.26 Institutional support is needed at least as much in the organization of production as in its strictly technical aspects. Production cooperatives have had some success, where artisans benefit by pooling or jointly purchasing complementary or expensive equipment (e.g., shoemaking, carpentry, metal-working); in areas resistant to cooperatives, reciprocal use of individually owned equipment, combined with joint facilities for bottleneck or highly specialized operations, may yield similar benefits. Artisan acceptance of

industrial cooperatives in some settings has been hampered by the organizers' insistence that artisans pool assets and form joint production units; as in agriculture, industrial producers are more open to cooperating on marketing and input supply, since the producer benefits from economies of scale without having to relinquish control over the source of his livelihood. Reciprocal arrangements and joint facilities may be arranged around existing production sites or within industrial estates.

5.27 Training should mainly focus on short, practical sessions to upgrade skills of existing artisans, apprenticeships and work-study arrangements--avoiding more lengthy and more formalized types of vocational training which tend to exclude existing artisans and other target group members. Conventional vocational training would be necessary, however, in new subsectors (e.g., electronics) or in countries with a very limited skill base

(ii) Finance

5.28 Very small enterprises are usually short of cash, hesitate to borrow and have little access to institutional credit. Many of them could advantageously use local currency loans for raw materials and upgraded equipment; foreign exchange represents a small (although sometimes critical) percentage of total credit requirements, especially for informal SSEs. Being labor- and raw material intensive, SSEs need credit mostly for working capital rather than fixed assets; and while their permanent capital base is small

their working capital needs are both relatively large and fluctuating. They keep incomplete accounting records (or none) and cater to volatile markets; their risks and returns are hard to evaluate reliably. Hence commercial banks shy away and SSE, especially informal ones, have to fall back on the middleman/moneylender.

5.29 The criteria and procedures for more organizedprovision of finance to the smallest enterprises must be drastically simplified:

minimum paperwork, with standard packages roughly indicating the amounts needed for different activities;[1/] loans based primarily on the strength of the market, internal management, and institutional support; strict ongoing supervision being the main reliance for loan security. Hire purchase or equipment leasing arrangements may be especially appropriate. Information promotion campaigns are necessary; SSes may have no idea how to approach a bank. Amortization terms should be reasonable and flexible; the eventual repayment record of SSE can be excellent, but temporary slacks in the market, production problems or raw material shortages may cause repayment delays that are recouped later.

(iii) Alternative to the Middleman

5.30 A prime object of effective SSE assistance programs in many countries must be to devise an institutional (cooperative, private or governmental) delivery system that will simulate the positive aspects of the middleman system -- its "full service" package, its operational flexibility and leanness -- while reducing exploitative features. Such a system could

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1/ Prototypes for such activities as bakeries, auto repair, wood and metal working and stone crushing, geared to local markets of different size categories, are a feature of the SSE loan to the Ivory Coast. Each model specifies the facilities and working capital required for the enterprise of appropriate scale, its likely costs and financial results, minimizing the need for appraisal guesswork by the loan officer and greatly facilitating the monitoring of the subproject.

(a) minimize the need for working capital advances to individual SSE participants, since they could draw raw materials from a common warehouse, return the finished products and be paid for the value added;

(b) assess other credit needs and certify them to the banks;

(c) assure repayment, by check-off from the sale of finished goods;

(d) through standard specifications and inspection, assure customers of product quality;

(e) explore wider market possibilities;

(f) provide assistance on design or technical problems; and

(h) provide common facilities, with equipment too costly or too seldom used for individual SSEs to own or lease, on a fee basis.

5.31 If alternative delivery mechanisms are to compete with the middleman, performance incentives for the extension staff will be needed to overcome the routine government lethargy. In larger countries it might help to establish at least two competing profit centers within the government framework, with no geographic demarcation, and/to make regular comparisons of methods and results. Most of the staff should be in the field and have substantial autonomy in decisions.

5.32 Such a model would be suitable mainly for fairly homogeneous artisans' activities. The more diffuse informal trading, transport and other services are less susceptible to help through package programs. The alternative to the moneylender, if any, is a generalized commercial banking or credit union program. Banks frequently have a branch network, can distribute and supervise credits, and mobile branches could help to reach out more effectively. They are seen as commercial, rather than dole-giving institutions. They have experience in working capital finance, although mainly so far to established enterprise; but a judicious combination of guarantees and incentives can move them toward SSEs.

5.33 Industrial cooperatives are an attractive concept since they connote management and distribution of earnings among the producers themselves, and the achievement of some economies of scale without permanent dependence on government support. However, the record of small industry cooperatives has not generally been good, mainly due to weak management. To transform rural or slum-dwelling artisans into effective cooperative managers or participants is likely to be a slow process, for which support from an interim, self-liquidating government entity, for training and establishing links, will be useful.[1/]

(iv) Meeting the Costs.

5.34 The costs of effective institutional support to artisans and informal industries are greater even than those for "modern" SSE. But so are the potential economic benefits, including the possibility of raising many of these enterprises above the commercial threshold.[2/] As with the modern SSE sector, it seems useful to distinguish the cost of money and loan administration from other (TA and guarantee) expenses, and to set the normal lending rate at the same level as for larger enterprises. The other costs would be absorbed by public agencies serving this sector.

1/ The rickshaw-pushers' cooperative in Comilla (then East Pakistan) in the early 1960s was a unique example of internal leadership and external reinforcement. Inspired and assisted by the Academy for Rural Development nearby, the rickshaw-pushers, who had been paying something like 60% of their daily earnings as rent for their vehicles, banded together to collect a few pennies each day to buy them. Their combined savings, supplementd by loans from the central cooperative federation and repayments at a high (by 1960s standards) interest rate, made them all independent operators within a couple of years; and having learned what miracles compound interest could accomplish they went on to become joint owners of a repair shop, trucking company and commercial farm.

2/ SSEs are usually fiercely competitive, which accounts in part for their high birth/death rates. The benefits of commercial survival and prosperity for some are partly offset by losses of others, but with likely increase of efficiency overall.

VI. ACTION BY THE WORLD BANK

6.01 Based on the information and analysis so far available, the following conclusions seem justified:

(a) that a very important, perhaps the most important, means to benefit the great mass of urban (and rural non-farm) population is through expanding effective demand for labor;

(b) that smaller enterprises (SSE) typically provide more jobs per unit of investment than larger ones, service occupations being especially effective in employment creation;

(c) that SSE development is subject to serioud handicaps, stemming from government and institutional policies as well as some inherent weaknesses; and

(d) that a variety of measures have been identified, and tested to some extent, that seem to offer promise for mitigating these weaknesses and anti-SSE discrimination.

Implications for World Bank policies and actions are suggested in subsequant paragraphs.

A. General Orientation

6.02 During the five-year period FY 1972-76, Bank Group financing for DFC projects amounted to about $2,200 million,[1/] of which only about $100 million was explicitly directed to SSE, almost since 1973. However, most conventional DFC loans, as well as some industrial estates operations, also

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1/ Additional direct lending for industry and mining (almost entirely medium and large enterprises) during FY 1972-76 was $3,100 million.

Table 4
(As of October 1976)

Bank Projects with SSE Impact[1/]

Country	FY	Nature of Project	Amount ($ million)	Estimated SSE Share ($ million)
Approved				
Pakistan	1962	Industrial Estates Development	6.5	6.5
Pakistan/ Bangladesh	1970/72	TA and Import Finance	3.0	3.0
India	1973/76	DFC	65.0	30.0
Mauritius	1973	Industrial Estates Development and Export Processing Zone	4.0	2.0
Yemen	1974	Industrial Estates Development	2.3	2.3
Nicaragua	1974	Sites and Services Development and Credit	2.5	2.5
Jamaica	1974	Sites and Services Development and Credit	1.9	1.9
Colombia	1975	DFC and TA	5.5	5.5
Philippines	1975	DFC and TA	30.0	15.0
Sri Lanka	1975	DFC	4.5	0.2[2/]
Cameroon	1976	DFC	3.0	1.5
Cyprus	1976	DFC	6.0	0.75
Ivory Coast	1976	DFC and TA	5.6	5.6
Jordan	1976	DFC	4.0	0.3
Korea	1976	DFC	30.0	15.0
Kenya	1977	Commercial Banks (IFC)	2.0	1.0
Liberia	1977	DFC	7.0	2.0
Nigeria	[3/]	Integrated SSE Development		
Rwanda	1977	DFC and TA	4.0	1.0
Senegal	1977	DFC	4.2	0.2
Somalia	1977	DFC	5.0	2.0
		Total	196.0	98.3

1/ The most important projects are described in Annexes 4 and 5. The definition of SSE is the country's definition up to fixed assets of $250,000. A DFC project has an SSE share if i) it has an earmarked SSE component or ii) more than 20% of the general DFC loan is expected to go to SSE projects.

2/ This is portion earmarked. More of the general loan is also expected to be used by SSE projects.

3/ The Bank has provided technical assistance and will provide additional assistance toward the implementation of the project. The funds, however, are Nigerian. Total cost is $165 million including a credit component over the next five years of $80 million.

Country	FY	Nature of Project	Amount ($ million)	Estimated SSE Share ($ million)
Appraisal Stage				
Bangladesh	1977	SSI and TA	6.0	6.0
Burundi	1977	DFC	2.0	0.5
Colombia	1977	DFC and TA	20.0	20.0
Indonesia	1977	Small Business Development and TA	20.0	20.0 4/
Kenya	1977	SSE and Industrial Estates	10.0	10.0
Korea	1977	DFC	82.5	7.5
Lesotho	1977	DFC	2.5	0.3
Mauritius	1977	DFC, SSI, and SS Ag.	15.0	3.0
Swaziland	1977	DFC	5.0	0.3
Turkey	1977	DFC	74.0	- 5/
Upper Volta	1977	Urban and DFC	11.0	3.5
Sierra Leone	1978	DFC	3.0	1.0
		Total	251.0	72.1
Preappraisal Stage				
Chile	1978	DFC	- 6/	7/
Ghana	1978	SSI Development	10.0	10.0
India	?	Informal Sector Manufacturing	?	?
Kenya	1978	DFC and SSI	10.0	10.0
Korea	1978	DFC	50.0	25.0
Mexico	1978	DFC	30.0	- 8/
Philippines	1978	DFC and SSI	20.0	20.0
Turkey	1978	Industrial Credit, Textiles, Clothing, and Leather	70.0	18.0
		Total	190.0	83.0
		GRAND TOTAL	637.0	253.4

4/ Includes very small trades and service sectors less than $48,000 in total assets.

5/ Portion below $250,000 in fixed assets will be small.

6/ Loan amount uncertain.

7/ At least 20% will be for SSE.

8/ A high percentage is expected to be SSE.

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benefitted small firms.[1] During the FY 1972-76 period, total Bank assistance to enterprises falling within the small scale definition set out earlier is therefore estimated at about $180 million. Table 4 lists projects approved to date, plus those well advanced in the pipeline.

6.03 It is recommended that in future lending programs the Bank give greatly increased emphasis to assisting SSE, including sole proprietorships and firms with only a handful of employees.[2] This is not to suggest an uncritical "small is beautiful" approach. It will sometimes be better to foster projects benefitting both small and medium enterprises; depending on country circumstances, medium enterprises may offer greater potential for industrial and service linkages, labor productivity and employment objectives than the smallest category.

6.04 Enterprises of every scale of assets and employment should be encouraged to choose their investment projects, technology appropriate to the relative factor proportions in their country, where a choice exists. To assist Bank-financed DFCs to assess or influence such choices systematically and with better information it is proposed that the Bank sponsor (but contract out) a Technology Referral Service, a central clearinghouse for the wide network of agencies studying technological alternatives. The proposal is explained in more detail in Annex 3.

6.05 In its country economic and industrial sector work, and in the continuing dialogue with governments on development policy, the Bank should urge persistently the correction of policies and regulatory measures that

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1/ A study of a large sample of Bank-associated DFCs in the 1970-72 period indicated that of about 5,000 enterprises financed by the respondent DFCs, about 50 per cent (by number) had fixed assets after project completion less than $300,000, about 30 per cent below $100,000.

2/ Tentative program targets are set out in para. 6.07 below.

have the effect (a) of encouraging undue capital intensity in investments, and (b) of inhibiting the ability of SSE to function effectively and to expand (paras 2.04 and 4.01). In some cases these issues may usefully be addressed in the context of consideration or negotiation of DFC/SSE projects.

6.06 With a view to dramatizing the Bank's desire to increase the employment and income effects of development efforts, it is proposed that the President of the Bank address a letter to the DFCs that are currently receiving loans from us (a) setting forth the Bank's concern (and the rationale) for assistance to SSE, including the need to involve poor people more directly in the process and benefits of development; (b) urging them to examine with care the possibilities for labor-intensive options in their appraisal of sub-projects; (c) informing them of the possibilities of the Technology Referral Service; and (d) soliciting their suggestions as to effective means of promoting appropriate technology applications and SSE development in their respective countries, to which the Bank might make some contribution. Parallel letters should be sent to the governments concerned, covering the same points but also emphasizing the importance of a favorable public policy environment; making clear that Bank assistance, though potentially playing a larger role in support of SSE development, can cover the financial needs only in part; and proposing further consultation on possible forms of collaboration in this general area. Draft letters are shown in Annex 6.

B. Lending Targets

6.07 Early in calendar 1976 the units of the Bank concerned with DFC and SSE projects analyzed the potential for expanding Bank lending to intermediaries assisting the manufacturing and service sectors, with special emphasis on smaller enterprises. Their preliminary assessment of project possibilities, the unscreened potential, suggested a dramatic

increase: total DFC lending might increase by 130% in FY1977-80 over FY1973-76, and SSE by nearly 1400% (in current dollars), with SSE projects accounting for 25% in dollar amount and 42% in number of projects within this total. Lending program limitations subsequently lowered these objectives. The most recent figures available -- still not completely firm, but based on further consultation with the Regions -- are shown in Table 5. During the four-year period FY1977-80 total DFC approvals would amount to $3,435 million (of which $3,125 million identified by Region), and of that total about $800 million ($580 million by Region) would be SSE lending. Extending the projections an additional year, the FY1977-81 total would rise to $4,535 million ($3,995 million by Region), containing $1,130 million ($950 million by Region) of SSE lending. The difference between the smoothed, notional DFC totals and the regionalized portions includes allowance for unidentified projects as well as for operations not previously managed directly by the DFC Divisions, such as industrial estates and portions of various urban/rural development projects. SSE lending is projected to rise from $115 million in FY1977 to $300 million in FY1980, doubling its relative share of the DFC total from 15 percent to 30 percent -- holding at about that proportion in 1981 and beyond.

6.08 If one compares the figures for FY1978-80 with actual approvals in FY1974-76, thinking of FY1977 as a transition year, the DFC total rises by 65 percent, from $1,632 million to $2,700 million. SSE lending jumps by nearly 1400 percent, however, from less than $50 million to $685 million. These are current-dollar increases, of course, not allowing for price inflation. The precise extent to which future SSE lending can be channelled through our traditional DFCs is not clear at this time, but it seems likely that a

Table 5

DFC and SSE Lending Projections FY 1977-81
(million dollars)

Region	1977 Total DFCs	1977 SSE Share	1978 DFC	1978 SSE	1979 DFC	1979 SSE	1980 DFC	1980 SSE	1981 DFC	1981 SSE	TOTAL 1977-80 DFC	TOTAL 1977-80 SSE	TOTAL 1977-81 DFC	TOTAL 1977-81 SSE
East Africa	65	7.6	4	-	60	15	24	21	53	10	153	44	206	54
West Africa	11	3.7	14	5	30	25	20	12	40	20	75	46	115	66
EMENA	220	30	193	36	236	47	76	22	270	20	725	135	995	156
LAC	102	32	110	60	255	52	368	50	163	99	835	194	997	293
EAP	196	35	230	90	140	-	275	80	185	75	841	205	1026	280
SA	141	6	30	15	85	35	240	-	160	45	496	56	656	101
	735	115	581	206	806	174	1003	185	871	269	3125	680	3995	950
Total Notional Targets	735 (15.6% (SSE/DFC)	115)	800 (20%)	160	900 (25%)	225	1000 (30%)	300	1100 (30%)	330	3435 (23.3%)	800	4535 (24.9%)	1130

substantial proportion will have to be passed through (to the Bank/IDA) intermediaries. The projections include sufficient amounts to permit continued assistance to most (but not all) of our current DFC clients, many of which lend predominantly to medium/small business and lack access to other suitable resources.

6.09 Apart from the DFC/SSE projections shown in Table 5, we recommend for FY 1977-81

(a) at least 10 experimental projects in the informal sector, with Bank assistance totalling at least $50 million, involving largely new types of intermediaries and technical assistance and/or new approaches such as cooperative programs, cottage industries or integrated schemes (subprojects assisted by intermediaries receiving these loans will probably show an average fixed cost per job below $1,000);

(b) at least 8 industrial estate projects to support in part small enterprises, with Bank assistance totalling at least $60 million; and

(c) at least a third of total DFC lending directed into subprojects the benefits of which will accrue to the urban poverty target group, as defined by and in accordance with the guidelines and country parameters currently under preparation in the Bank.

1/ This target is designed to highlight, inter alia, the Bank's concern for the application of "appropriate technology" in project design, i.e. avoiding undue use of equipment in labor-surplus economies. This applies to DFCs catering to medium and large enterprises as well as for SSE; some of the SSE lending may not satisfy the cost-per-job guidelines, whereas some of the conventional DFC lending will.

C. Lending Policies

(i) Local Currency Financing.

6.10 Use of Bank financing through DFCs has typically been limited to the cost of imported goods and services, sometimes including the estimated import content of locally purchased goods.[1/] This restriction has not adversely affected conventional DFC projects to an appreciable extent. But for most labor-intensive and SSE projects, the incidence of imported machinery and raw materials is lower than for larger firms. SSEs often operate in sectors where labor-intensive, domestically developed technologies are available and adequate; their local markets do not require sophisticated technology;[2/] their lack of access to capital dictates investment in domestic/labor-intensive rather than imported/capital-intensive equipment; and cumbersome import licensing regulations often compel them to buy "off the shelf".

6.11 These assumptions are confirmed by the Bank's experience in assisting intermediaries catering to both small and larger enterprises in the same country. In Colombia, the import content in fixed investment was 24% and 45% for small and medium firms, respectively. In India, the corresponding figures are 16% and 35%. More generally, an analysis of direct import content on the basis of different project sizes suggests that there is a strong positive correlation between import propensity and scale of manufacturing.[3/] Although no data are available on the informal sector, the direct import component may often be zero.

6.12 To the extent that potentially competitive domestic

1/ Small local currency components have been explicitly included in only two cases (Tunisia and Liberia).

2/ This factor is important in explaining the significant differences which IDA observed in lending to the 18 SFCs in India. SSE located in backward areas apparently had much lower import requirements than those in the more developed states.

3/ See Annex 2.

industries are precluded from bidding on contracts, benefits from indirect employment and improved local knowhow and experience would be lost. The negative consequences of discouraging local production and encouraging capital intensive imports, if Bank finance is limited to imported goods, will tend to increase with the changing magnitude and emphasis of Bank programs and the expansion of domestic industrial capacity. Also, the psychological effect of exclusion of domestic suppliers runs counter to the attitudes favoring employment creation which the Bank is seeking to foster. For all these reasons, and subject to specific justification, the Bank should approve local cost financing in specific SSE cases, particularly in the informal sector where the required loan amount may be considerably in excess of the total direct and indirect import component.[1/]

(ii) Other Lending Policies.

6.13 To make the forms and terms of Bank lending appropriate for the needs of SSE, some other adjustments in lending policy may be necessary, as follows:

(a) greater flexibility in permitting working capital finance, to include certain priority needs of shorter term (paras. 4.17 - 4.18);

(b) drastic simplification of criteria and procedures required for SSE sub-project evaluation, relative to conventional DFC operations; and

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1/ The formula applied in the DFC loan to Colombia in 1975, for developing small and medium industries, may be utilized to advantage in other projects. The Bank disburses 90% of the cost of locally procured goods and services, as well as 100% of documented direct imports in the sub-projects financed from the loan; this is estimated to be slightly less than the foreign exchange content of the total program cost, not just the Bank-financed portion; nearly half of the total cost is financed from Colombian sources.

(c) permitting governments to pass on Bank/IDA funds to an SSE intermediary at a level below the Bank's normal interest rate, if necessary to permit the intermediary an adequate spread to cover high administrative costs, provided the rates charged to ultimate borrowers are significantly positive in real terms.

(iii) New Intermediaries

6.14 Intermediaries of different kinds from those generally used in the past will be needed in order to get down to the target group. The Bank is exploring the potential, in various country contexts, of the institutional patterns outlined in paras. 4.21 - 4.36 (see also Annex 4). Given the paucity of reliable knowledge on many of the factors affecting the growth of small enterprise and informal sector activity, our approach must be one of practical experimentation for some time to come, before the Bank can prescribe delivery systems offering good prospects for successful replication. The experiments will need to be designed with particular care to assure close project monitoring and feedback of experience.

6.15 It remains true, however, that the most promising channels for finance, in terms of both potential volume and coverage, are likely to be the banking systems (paras. 4.27 - 4.28). Special attention is being given to possible means of enhancing their receptivity and adaptiveness to SSE needs, and their efficiency in meeting these needs; the Philippine and (proposed) Indonesian projects are possible prototypes.

The Potential Contribution of Small Industries to Economic Development

1. The following discussion relates essentially to manufacturing enterprises producing goods and services for a market wider than the neighborhood, SSIs using powered machinery and other relatively "modern" techniques. It does not deal with the traditional or the "informal" sector.

Relationship of Small to Large Firms

2. The technical and commercial transformation called the Industrial Revolution was accomplished largely through what (in current terms and by the definition used in this paper) are SSI-entities with modest capital, a few score workers, owned and managed by a single individual or family. Really large firms were slow to emerge. As late as 1900, the hundred largest British industrial firms accounted for no more than 10-15 percent of manufacturing value added, and the picture was little different in the rest of Western Europe and North America. The explosive growth of really large-scale organization occurred in the next half century; large firms are now the dominant mode. Typically the hundred largest manufacturing enterprises in developed economies now control at least half the total of manufacturing assets, with a varying but comparable figure for value added, but a lesser employment share relative to output.

3. Nonetheless, in these economies many small manufacturers have continued to exist,[1/] providing the familiar skewed distribution with the modal size being close to the smallest, and an extremely long rightward tail stretching toward the giants. Many of these small firms are service-oriented,

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1/ The data were recently developed by Dr. S. Prais of the British National Institute of Social and Economic Research.

or produce for a circumscribed or specialized niche in the market. Many produce intermediate products for large firms; the development of the subcontracting relationship has been particularly marked in the economic history of Japan.[1/] As industrialization proceeds, small firms seem naturally to shift from activities that compete with large firms to complementary ones.

TABLE 1

Japan: Dependence of Large-Scale Industries on "Sub-Contracted" Industries in Terms of Production Cost.

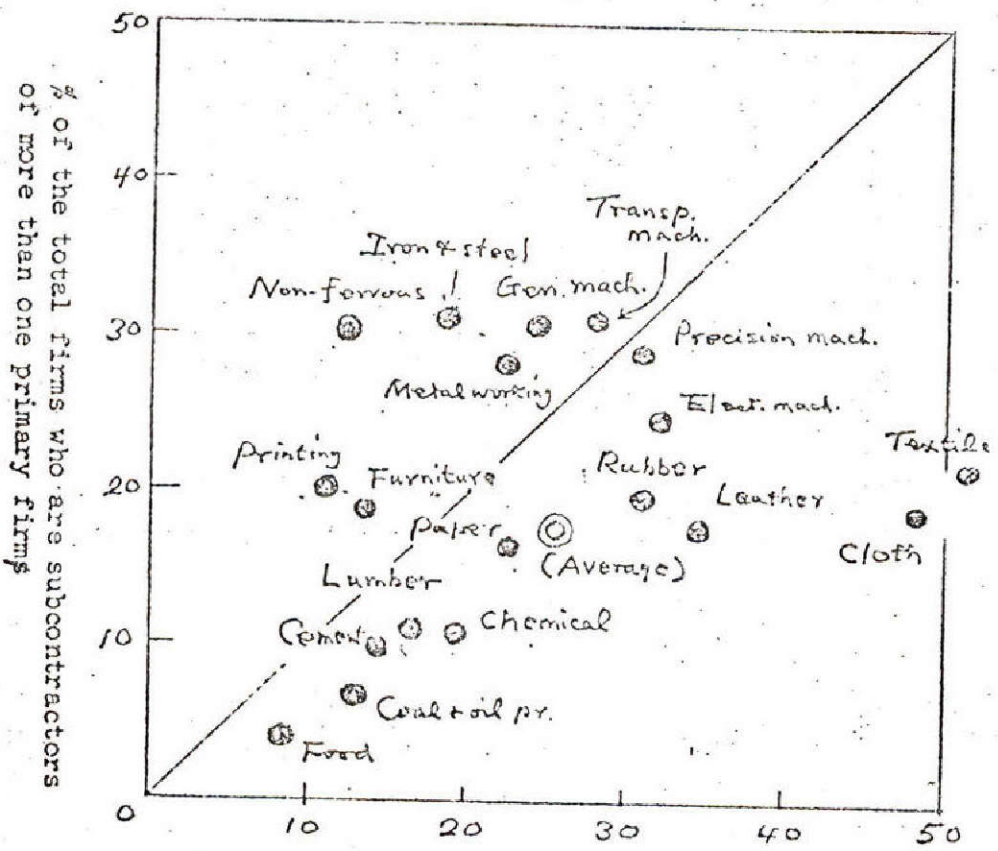
	Industries	Percentage of Production Cost Shared By Sub-contracting Industries
1.	Rolling Stock	70
2.	Ship Building	70
3.	Motor Car	62
4.	Textile Machinery	34
5.	Telephone Switch Board	26
6.	Sewing Machines	40
7.	Ammunitions	40
8.	Bicycles	31
9.	Gauges	30
10.	Weaving Machines	28
11.	Automobiles	28
12.	Optical & Precision Instruments	26
13.	Motor Bicycles	25
14.	Other Industrial Machines	21
15.	Communication Apparatus	20
16.	Watches	19
17.	Vehicles	18
18.	Electric Motors	17
19.	Electric Appliances	11

Sources: (1) For items 1 to 5 Asian Regional Conference, I.L.O., p.9.
(2) For the rest, Asia Kyokai, The Smaller Industries of Japan, 1957, p.101.

4. Apart from firms involved in subcontracting, why do so many other SSIs continue to exist? A common answer is that they have distinct advantages in organization and marketing flexibility. A deeper answer is found in the

1/ See S. Paine, Bulletin of the Oxford Institute of Economics and Statistics, May 1971; and Table 1.

Relative Prevalence of Subcontracting Firms in Different Categories of Manufacturing Industry : Japan 1966, the firms with employees less than 300 persons.



Source : Small and Medium Enterprise Agency, MITI, Dai-san-kai Chusho Kigyo Sogo Kihon Chosa Hokokusho, Sokatsu-hen (Report on The Third Comprehensive and Basic Survey of Small and Medium Enterprises, as of December 31, 1966 — General Report), March 1969.

From Shigeru Ishikawa, Appropriate Technologies -- Some Aspects of Japanese Experience (mimeo, 1976), p.40.

nature of the process by which firms generally grow. Even if, in the absence of direct or implicit government restriction, the ultimate size of the modern corporation may be unlimited, there are financial, organizational, and marketing constraints on its rate of growth. On the financial side, past profits limit future growth. As for organization, there is strong evidence that it is excessively rapid expansion, rather than excessive size as such, that leads to the characteristic forms of managerial inefficiency.1/ Enterprises often play an important role in developing labor skills, especially in developing countries, but there is a limit to the number of people who can be effectively "trained" in any given period.

5. Different firms can grow at different rates and their growth rates in one period may not be very highly correlated with their growth rates in the next period. But it remains valid to conceive of a kind of natural rate of growth for any enterprise, consistent with its continuing to function with reasonable efficiency. Thus many small firms exist because they either operate in fields where there is little opportunity to grow or lack the combination of luck and ability to grow larger.

6. By contrast, the international development effort of the past three decades has tended to foster the "creation" of large-scale organizations, by fiat or feasibility report. In most developing countries a conscious industrial development policy was formed only after World War II, or later. By that time the model of industrialization in both the OECD and the Eastern European countries featured large, integrated plants; this is what they had for sale,

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1/ See for example, Edith Penrose, The Theory of the Growth of the Firm, Oxford, 1959, page 47 et seq; Mason Haire, Modern Organization Theory, New York, 1959, page 283; R. Marris, The Economic Theory of Managerial Capitalism, London and New York, 1964, page 114 et seq.

conceptually and commercially. And it was what the incipient tycoons in the LDCs, or the industrial planners and managers in their governments, wanted. It seemed the modern way, the way to catch up quickly, with imported technology and turn-key contracts. Hence the big enterprises, public or private, enjoyed tax, tariff, import licensing and credit favors while smaller units survived as best they could, often with serious handicaps in relation to the administrative and financial establishment.[1/]

7. Such exotic industrial implants have a poor record the world over; nationalized industries (other than those directly taken over without major disruption), many corporate mergers and state enterprises provide familiar examples. Less well known is evidence that in China enterprises built on previously existing small private firms have displayed a significantly better record of flexible contribution to development (especially to the diffusion of skilled labor) than state enterprises founded with Soviet assistance in the 1950s.[2/] A wider literature[3/] confirms that the rationale of the Chinese policy known as "walking on two legs" is based on intermediate technology and organizational potential.

Employment Creation

8. A more explicit case for encouraging SSI lies in its employment creation potential. Large firms designed on the OECD or East European model have undoubtedly raised industrial production and productivity levels in many developing countries, but without reducing unemployment correspondingly, so that rising output is often associated with widening poverty. An alleged

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1/ See for example, Peter Marris, African Businessmen, and IBRD, Financing the Development of Small Scale Enterprises, (RPO 277, July 1974).

2/ Thomas Rawski, "Problems of Technology Absorption in China Industry", American Economic Review, Vol. 65, No. 2, May 1975.

3/ For a major survey, see Carl Riskin, "Small Industry and the Chinese Model of Development", China Quarterly, Vol. 46, June 1971.

capital-intensive bias in large firm development is held partly responsible; small firms, by contrast, are said to be more labor-intensive without necessarily being too costly or unprofitable. These arguments need further examination.

9. A sufficient number of comparative studies of small, medium and large firms in different developing countries, as well as in developed countries, permits the following generalizations:[1/] small firms in contemporary developing countries use less capital per man, produce less value-added per man, and pay lower wages per man, than large firms. (All these are also true of the relationships between medium and large firms, on the one hand, and small firms on the other, in more advanced industrial countries.)

10. Comparative investment costs per direct job generated, as shown in Table 2, suggest that small enterprises use significantly more labor-absorptive factor proportions. In interpreting this table, three points must be stressed. First, the data reflect investment decisions taken perhaps 5-20 years ago, and assets since depreciated. Second, asset values would be substantially higher in 1976 prices;[2/] it is likely that small enterprises would now show an average fixed asset/direct employment ratio between about $1,000 and $3,000, and medium/large enterprises $10,000-$20,000. What is therefore important is the relative labor intensity, roughly 4-10 times higher for small firms. Third, these figures reflect the situation of the firm as a whole, usually comprising a succession of expansions and improvements; and

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1/ See for example, UNIDO, Small Scale Industry in Latin America, UN, 1969, pp. 89-113; ILO, Sharing in Development, 1974, pp. 539-567; S. Paine, op.cit., and B.F. Hoselitz (Ed.), The Role of Small Industry in the Process of Economic Growth, 1968.

2/ Based on a sample of 435 companies in its portfolio, ICICI (India) found that their incremental cost/job ratio increased by 20% between 1973 and 1974.

TABLE 2

Fixed Assets/Direct Employment in Selected Countries

Size of Enterprise	India[a/] (1965/1973)	Colombia[b/] (1974)	Philippines[c/] (1970)
Small	$278	$3,000	$1,020
Medium	$557		$2,850
Large	$2,450 ($5,000)	$13,400	$8,000

a/ Data from Annual Survey of Industries, 1965, and (in parenthesis) ICICI publication Financial Performance of Companies, 1973/74, p.23.

b/ Banco de la Republica, El Mercado de Capitales en Colombia, Bogota, 1974. Other estimates of the cost/job in Colombian medium/large enterprises, quoted in the Bank's 1972 OED report on Colombia, range as high as $15,000 - 22,000.

c/ ILO, Sharing in Development, 1974

the cost/job ratios are significantly higher for the later investments in all sizes of firms, on average about three times higher. This is because in many cases, as a company grew and prospered, it "upgraded" its production technology, became more "modern" and capital-intensive; some of the later investments were explicitly designed to replace labor, and still others served to break bottlenecks and raise capacity utilization and output without greatly increasing the work force. Hence project-related (rather than company-related) cost/job ratios derived from the Bank's DFC borrowers are much higher than the figures in Table 2.

11. A series of Special Studies on the "Development Impact of DFCs" in six countries showed, on the basis of 160 projects, an average fixed investment per direct job of $10,200, with two-thirds of the projects below the

average.[1/] A more recent study,[2/] undertaken in preparation of this paper, confirms that cost per job ratios are also highly correlated with project size (not just company size). The main findings from this study are presented in Annex 2 and they are summarized here for convenience:

(a) compared to data from the earlier Special Studies, investment costs have gone up sharply, mainly on account of inflation, real cost increases for machinery and equipment and exchange rate adjustments, resulting in an average fixed investment per job estimated at $16,000 in 1976 prices;

(b) there are considerable variations in cost/job ratios according to DFC and region and, also as expected, by sector; and

(c) capital intensity is generally highly correlated with project and firm size, but for at least half of all DFC-assisted projects a fixed cost/job ratio below $8,000 is estimated.

12. Tables 3 and 4 present more detailed statistics, from Japan and India, which support the conclusion that smaller firms generally employ more labor per unit of capital. Table 3, for Japan, also suggests a more efficient use of capital by relatively small industries -- except for the very smallest (measured by number of workers) -- an assessment that is strongly confirmed by the cross-country comparisons in Table 5, for which we are largely

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1/ IBRD, DFC Policy Paper, R75-172, August 1975, p.12. This average, which would be about $15,000 in 1976 prices, can be taken as representative of medium-sized projects assisted with Bank funds.

2/ This study involved all sub-projects submitted from July 1974 through December 1975 for authorization to withdraw from loan accounts, which contained employment information. The sample is, however, skewed in favor of large projects (above the "free limit") since withdrawal applications for small projects usually did not contain employment information.

indebted to the DPS paper on Urban Poverty and Employment. It corresponds also to the conclusions of an earlier Bank study based on evidence from a number of developing countries, "that smaller enterprises /excluding the smallest/, with a lower level of investment per worker, tend to achieve a higher productivity of capital than do larger, more capital intensive enterprises."[1/] Table 4 brings out the sub-sector variances in investment per job, which are discussed more fully below.

13. To what extent, however, do smaller industrial units contribute more to employment of poor people in urban (or rural non-farm) settings? Insofar as they create a greater number of job opportunities at the margin it may be expected that the urban jobless, generally poor, will benefit. Moreover, the data from about 250 recent DFC sub-project appraisal reports suggest that small to medium enterprises sponsor projects having an appreciably higher proportion of employment for unskilled people than medium to large enterprises -- 65% as compared to about 50%. Creation of unskilled jobs certainly has a direct poverty impact, greater for small to medium enterprises than for larger ones.

14. It is sometimes argued that large firms and projects, even though their direct fixed investment/job may be high, contribute powerfully to indirect employment generation through backward and forward linkage effects. The subject of indirect employment is enormously complex. The Colombia Special Study,[2/] a first attempt at quantifying indirect employment effects, estimated that they amount to about 50% of direct employment generation overall, but it took account only of industrial sector jobs, not services.

1/ Keith Marsden, The Role of Small-Scale Industry in Development: Opportunities and Constraints, ILO and IBRD, Mimeo, May 1974.

2/ IBRD, Developmental Impact of Financiera-Assisted Projects, Report No. 842-CO, August 22, 1975

Table 3: Production Structure by Scale of Employees per Enterprise of Manufacturing, in Japan (1957)

Size (number of regular employees)	Y/L ¥'000	Y/L Index	K/L ¥'000	K/L Index	Y/K -	Y/K Index	W/L(=w) ¥'000	W/L(=w) Index	Lw/Y %	(Y-Lw)/K(P) -	(Y-Lw)/K(P) Index
1 - 9	102	38	79	31	2.43	122	118	61	34.6	1.59	123
10 - 19	272	53	76	30	3.59	180	132	69	44.9	1.98	153
20 - 29	315	62	81	32	3.90	196	144	75	43.8	2.19	170
30 - 49	347	68	90	35	3.85	193	144	75	42.1	2.23	173
50 - 99	420	82	120	47	3.45	173	156	81	38.1	2.16	167
100 - 199	489	96	166	65	2.95	148	168	88	35.7	1.90	147
200 - 299	566	111	209	81	2.70	136	192	100	33.6	1.80	140
300 - 499	695	136	309	120	2.25	113	204	106	29.9	1.58	122
500 - 999	784	153	407	158	1.92	96	228	119	29.6	1.35	105
1,000 and over	921	180	624	242	1.48	74	300	156	33.1	0.99	77
Average	512	100	275	100	1.99	100	192	100	35.1	1.29	100

Notes: Y = value added; L = employment; K = value of assessment of tangible fixed assets (excluding land); W = amount of wage payment; P = rate of return on capital.

Source: Ohkawa and Tajuma, Small Scale Manufacturing Industry - A Comparative Study of Japan and Developing Nations, International Development Centre of Japan, Working Paper Series No. A-02, March, 1976.

Table 4: India: Ratios of Capital/Labor, Output/Employee, Capital/Output in Selected Industry Groups by Size (1965)

Industry Group No.	Industry Group	Fixed Capital/Employee (Rs)			Value Added/Employee (Rs)			Capital-Output Ratio		
		Small	Medium	Large	Small	Medium	Large	Small	Medium	Large
205	Grain Mill Products	2,049	8,345	11,711	2,426	4,590	7,806	0.84	1.82	1.50
209	Miscellaneous Food Preparations	2,066	5,932	8,449	2,243	4,145	8,705	0.92	1.43	0.97
220	Tobacco Manufactures	328	1,144	3,403	1,369	1,441	16,486	0.24	0.79	0.21
231	Spinning, weaving and finishing of textiles	1,313	2,753	3,768	2,423	2,549	3,444	0.54	1.08	1.09
239	Textiles n.e.c.	1,631	5,017	18,130	1,075	2,827	4,850	1.57	1.77	3.74
251) 252) 253)	Saw Mills and Wood Products (except paper & furniture)	1,476	4,423	5,247	1,802	3,279	1,149	0.82	1.35	4.57
280	Printing, publishing and allied industries	3,061	3,199	5,545	2,777	3,491	4,752	1.10	0.92	1.17
311	Basic Industrial chemicals including fertilizer	4,272	8,173	41,408	4,858	7,957	10,075	0.87	1.03	4.11
313) 319)	Paints, varnishes and lacquers and miscellaneous chemical products	1,983	5,485	11,920	3,286	8,499	13,713	0.60	0.65	0.82
339	Non metallic minerals products n.e.c.	1,506	3,771	10,291	2,030	4,302	9,206	0.78	0.88	1.12
341	Iron and steel basic industries	2,522	3,656	39,917	2,576	3,014	6,502	0.97	1.18	6.14
350	Metal products except machinery and transport equipment	2,519	5,385	8,939	2,978	4,744	8,213	0.85	1.14	1.09
360	Machinery except electrical machinery	3,445	4,773	12,277	2,782	4,857	5,417	1.24	0.98	2.27
370	Electrical machinery apparatus, appliances and supplies	2,289	4,016	11,814	2,985	5,498	6,622	0.77	0.73	1.78
384	Repair motor vehicles	2,136	3,842	5,050	2,380	2,711	2,373	0.90	1.42	2.13
399	Fur products except wearing apparel and manufacturing products n.e.c.	2,447	4,221	12,569	2,516	4,067	8,441	0.97	1.04	1.49

Source: Annual Survey of Industries, 1965, India.

Table 5: Capital Productivity Variance by Scale (Workers per Enterprise)

Malaysia, 1968[1/]		Pakistan, 1969/70[1/]		Philippines, 1970		India, 1965 (Size of Enterprise)		Mexico, 1965[1/]	
Number of Workers	Y/Kf	Number of Workers	Y/Kf	Number of Workers	Y/Kf	(Size of Enterprise)	Y/Kf	Number of Workers	Y/Kf
1 - 9	2.01	1 - 9	2.15					1 - 5	1.34
				5 - 19	0.96			6 - 15	0.76
10 - 19	1.30	10 - 119	0.75						
						Small	1.16	16 - 25	0.65
20 - 29	1.32								
		20 - 49	0.97	20 - 49	0.98			26 - 50	0.64
30 - 49	1.05								
								51 - 75	0.64
50 - 99	1.44	50 - 99	1.46	50 - 99	1.24	Medium	0.95		
								76 - 100	0.66
100 - 199	1.02			100 - 199	1.25				
		100 - 249	1.16					101 - 250	0.62
200 - 499	0.77			200 - 499	1.18				
		250 - 499	0.81			Large	0.29	251 - 500	0.61
500 and over	1.13			500 and over	1.11				
		500 - 999	0.65					501 and over	0.61
		1,000 and over	1.20						
Average	1.07	Average	0.99	Average	1.13	Average	1.03	Average	0.64

Notes: 1. Y/Kf = value added per unit fixed capital.
2. Malaysia, Kf = book value of fixed assets excluding land.[1/]
Pakistan, Kf = value of fixed assets including land.[1/]
Philippines, Kf = book value of fixed assets including land.
Y/Kf of '70... Taken from ILO, Sharing in Developing in the Philippines, 1974.
India, data derived from IBRD report # SA-33a, Small Scale Industry in India, 1972.
Mexico, Kf = book value of fixed assets including land, as of December 31, 1965.[1/]

Source: 1/ Ohkawa and Tajuma (cf).

And individual projects showed wide variations; in fact, in 13 of 28 projects the indirect effect was negative and in five of the 13 cases, the inclusion of indirect employment actually made the overall industrial employment effect negative. In many LDC situations the job multiplier effect anticipated from setting up a major industrial plant does not occur, or occurs only partially, because establishment of the large industries has not been paralleled by a sufficient evolution of the linkage entities.

15. In the absence of comprehensive and reliable national input/output data -- which are not likely soon to be available for most LDCs, it is difficult to prove conclusively whether SSIs typically generate more total employment per unit of investment than larger ones. There are wide variations, both in capital intensity and in the ripple effects on employment (see Table 4). There is, however, strong evidence that small firms do have a greater overall, as well as direct, employment effect.

16. The evidence is linked to the inputs used by small and large firms, respectively. Large firms usually have a much higher propensity to import raw materials and capital goods. Small firms buy more domestic inputs, produced by domestic labor. One must admit that an enterprise's import function does not provide a complete picture of its net impact on a country's employment; if a large firm were to export a great deal its net job creation could be superior to that of a small firm. But the fact remains that large firms are more likely to displace existing domestic producers, and the Colombia Special Study indicates that firms with roughly 90 workers had a markedly higher indirect employment impact than firms with 400 workers.

In sum, there is a strong prima facie case that small enterprises do have a greater overall employment generation effect than large firms.

17. Often, to be sure, the size of firm, and/or the capital intensity of its operations, will be dictated by its products and the technology available for their manufacture. Backyard blast furnaces have not proved efficient in overall use of resources. However, small foundries or metal working plants may be both relatively labor intensive and competitive. Many small firms, catering for a limited market, are labor intensive simply because capital is not divisible below a certain size range; capital intensity becomes uneconomic on a small scale. On the other hand, large firms, producing for a wider market, may have a choice among relative factor proportions in planning their investments and operations. But use of labor-intensive techniques in large enterprises often poses special difficulties -- labor union pressures, government regulations, etc. -- which weigh much less heavily on SSI; it is partly to avoid these problems that the large firms move toward capital intensity and less "appropriate" technologies. So, where an option exists, SSIs may be more inclined and better able than larger firms to use resources efficiently, in the light of their relative availability and cost to the national economy.

18. The foregoing argument relates essentially to employment effects in manufacturing industries. But the indications are that service occupations tend to provide something like three times as many jobs as manufacturing,

at every level of economic/industrial development,[1/] regardless of the scale or composition of the manufacturing sector. This conclusion is, perhaps, surprising; one might expect that the costs of transportation and merchandising of (for example) cigarettes, or textiles, or housewares would be fairly uniform regardless of whether they were produced in large, modern plants or in labor intensive SSIs. But the less modern plants are also often associated with a less modern distribution system, itself more labor-intensive, less systematic; and its customers are relatively undemanding. On the other hand, as capital intensity, sophistication of production techniques and wage rates in the manufacturing sector rise, with development, in a given national economy, so also does the remuneration in service employment and likewise incentives toward use of labor-saving techniques. So the balance between manufacturing and services, at various levels of development and incomes, remains relatively stable.

19. The quality of service jobs that may thus be made available is, of course, extremely variable. The services category is a catch-all -- from refuse-picking through street-corner vending, through diverse modes of transportation, to the most sophisticated kinds of commercial, financial and governmental activity. In most LDCs the average value of remuneration and value added in service occupations is inevitably lower than in richer economies; and this is likely to be especially true for the services ancillary to, and dependent on, SSIs. But the present discussion relates to the job creation effect of different scales of industrial organization. And it appears that highly labor-intensive manufacturing employment generates and supports still more labor-intensive service jobs in a proportion comparable to larger, capital-intensive industries. Thus it may be concluded that SSIs

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1/ IBRD, The Task Ahead for the Cities of the Developing Countries, Staff Working Paper No. 209, Table IV-1, p.55.

tend to have substantially greater employment effect -- usually, but not always, at lower productivity and wages -- not only directly and indirectly in manufacturing, as discussed earlier, but through a fairly constant multiplier effect in the services sectors.

Benefits Other than Employment Creation

20. Management. SSIs may also make better use of indigenous organizational and management capabilities, drawing upon a pool of entrepreneurial talent that inevitably is limited in the early stages of economic development, and providing opportunities for these entrepreneurs to gain experience and prove themselves. The more successful ones will generally grow larger (and doubtless more capital-intensive) and in the process will fulfill an important incubating function. Unlike the contention that small firms have a greater employment generating impact, the argument relating to organizational potential is unsupported by statistical evidence But it seems clear that at various levels of economic development the technology and factor proportions must be appropriate to the stage of organizational development.

21. Enterprise. In this connection, one must distinguish between managerial and entrepreneurial abilities. In much of LDC planning and policies the latter is neglected, partly because it is so hard to define. Yet its importance is clearly evident in comparisons of performance among countries and sectors where individual or collective initiative has been encouraged, and those subjected to a more bureaucratic regime. Entrepreneurial experience and training, and testing entrepreneurial competence, whether in individual or cooperative undertakings, typically evolves in the small enterprise.

22. Savings. The potential savings role of SSI development has not been adequately exploited. Although, again, quantitative data are scanty, there is abundant empirical evidence, from many countries over many decades, that small entrepreneurs are very highly motivated to save and invest and reserve a greater proportion of their incomes for this purpose than do the general population. In part, this reflects their inability to obtain financing from institutional sources; but in large part also it stems from their psychological commitment to protect and enlarge the enterprise in question, which is both their essential security base and their best hope for an easier, more secure existence.[1/] In rural areas, given conditions of confidence, funds may be mobilized from large farmers and channelled into rural industry. The Chinese experience is worth noting in this connection; their "induced investment mechanism" lays great stress on fixed capital creation, even by families at the subsistence level, through a greater social awareness program.

23. Domestic Technology. The generally greater labor intensity of SSIs stems in part from the fact that they are more likely than larger firms to make use of relatively simple, general purpose machinery, that is often obsolete by developed country standards, in their production processes. Such machinery can often be manufactured locally; small machine shops, that are themselves quite labor intensive, exist in almost all countries, even the least developed, and they are excellent training grounds in mechanical skills.

1/ Studies of SSI financing, insofar as they are available, show that plowed-back profits are overwhelmingly the main source of expansion capital. The recent study in depth of SSI in Sierra Leone indicates that 60% of initial investment, and 90% of that for expansions, came from the proprieters' savings. (C. Liedholm and E. Chutta, Small Scale Industry in Rural and Urban Areas: Evidence from Sierra Leone (mimeo, 1976), p.38.

By necessity their machinists become intimately familiar with the equipment of their customers, including SSIs. This equipment, perhaps originally imported, often secondhand, is likely to be in frequent need of repair or replacement parts -- which the original supplier, like as not, no longer manufactures. Not infrequently also, the local industrialist may see ways in which the original equipment could be modified to better suit his needs, and commission his neighborhood machine shop to work out the improvement. Gradually machine building and adaptive capability evolves, stimulated and supported in the first instance by the small scale user of simple, less "efficient" and elegant machines, with which the embryonic Henry Fords can start the evolutionary process. Large, showpiece industries, seeking instant modernity, provide little sustenance for the early stages of local machine working.

24. Regional Balance. In most developing countries industry is highly concentrated in a few places; historically determined locational advantages have been reinforced by natural accretion, linkages and habitual assumptions. The result has been to aggravate regional imbalances: (a) between the urban core and the peripheral areas, with the latter remaining relatively very underdeveloped; (b) between the urban and rural populations, migration depleting the more vigorous rural elements and worsening urban unemployment; and (c) between major regions within the nation, giving rise to political tensions. Both large and small industries contribute to these imbalances, the latter especially where they are stimulated by or dependent on the former. But SSI generally has more locational flexibility. It requires less infrastructure and usually caters to a narrower geographic market. Its relatively labor intensive technology benefits from the lower wage rates

generally prevailing outside the metropolitan centers -- while helping in some measure to raise these rates. Comparative studies suggest that the profitability of SSIs is highest in medium sized towns, away from the metropolis,[1/] so that promotion of SSI development in outlying towns conforms to the individual entrepreneurs' interests as well as the social benefit.

25. Rural Development. SSIs are also crucially important in rural development. In most LDCs a major problem of the rural economy is under-employment, especially in the slack agricultural season. This depresses rural incomes and increases migration to the cities. The obvious need is to create more non-farm jobs -- and to the extent these are industrial jobs they will generally be in the small scale sector, given the conditions of infrastructure, market radius and labor skills. Certain agricultural processing industries may be exceptions, and they deserve encouragement both for creating employment and (potentially) for enhancing returns to farmers. But their peak demand for labor is likely to coincide with the agricultural peak rather than complement it. Other types of small scale production for the rural community -- blacksmithing, brickmaking, lime kilns, tailoring, carpentry and furniture making, etc. -- are indispensable in any rural development effort.

26. Environmental Impact. SSIs, just as their larger counterparts, may pollute or otherwise adversely affect the environment. However, their smaller size and dispersion, their lesser need for massive infrastructure and their generally simpler processes make it likely that the environmental consequences from SSI activity will be less grave and more easily remediable.

1/ Lieholm and Chuta, op. cit., p. 100.

27. All these considerations tend in a similar direction. Their cumulative weight, together with the employment creation advantages of SSI, make a powerful case for governmental policies and actions, and for external assistance, aimed at reducing the handicaps that SSIs face and helping them to make the maximum contribution to sound economic development.

EMPLOYMENT CHARACTERISTICS OF RECENT DFC SUB-PROJECTS

In the course of a Special Study series on the developmental impact of DFCs in six countries, information had been gathered on the capital/labor mix of DFC sub-projects (ANNEX 1). However, all the investment decisions studied then were taken several years ago and with abnormal price increases during recent years, particularly regarding construction and equipment, as well as exchange rate adjustments, it was appropriate to undertake a study based on more recent investment decisions in order to obtain a more realistic picture of the characteristics of DFC sub-projects.

For that purpose a sample of 315 recent sub-projects was studied (almost all of them were submitted to the Bank during FY75). It must be stressed at the outset that the composition of the sample is not representative for the universe of Bank-assisted sub-projects and certainly not for all DFC sub-projects, mainly because over half (178) of the sample projects are "A" projects, i.e. those projects above the "free limit" which have to be submitted for Bank approval. Relatively large projects are therefore over-represented, by default rather than by design, since smaller sub-project submissions contained little or no information on employment effects. Nevertheless, some general conclusions are possible which can be augmented by information from Bank appraisal reports in order to obtain balanced estimates.

Capital/Labor Mix of Sponsoring Firms

For 106 companies information was available on fixed asset/job ratios and on the amounts lent by DFCs to projects sponsored by them. The table below summarizes the results:

Table 1

Fixed Assets/Job ($)	No. of Sub-projects	%	Loan Amount ($ million)	%
Up to 5000	39	37	34.3	20
5000 to 10000	19	18	37.3	21
10000 to 15000	10	9	14.5	8
15000 to 20000	5	5	15.4	9
20000 to 25000	4	4	5.0	3
25000 to 40000	19	18	36.6	21
Over 40000	10	9	31.9	18
Total	106	100	175.0	100

A picture of somewhat surprising extremes emerges: More than half (58%) of the companies show a fixed assets/job ratio below $10,000. They account for 41% of total DFC loan assistance to projects sponsored by them. Relatively few companies show fixed assets/job ratios between $10,000 and $25,000, whereas 27% of the companies (accounting for 39% of DFC assistance) appear to be relatively capital intensive in their operations with a fixed assets/job

ratio above $25,000. (The median value for the total sample is $8,900 for the fixed asset/job ratios, and the median employment per firm is for 220 people.)

To test the correlation between the sizes of firms and the employment created by them, a logarithmic regression analysis was performed which showed a surprisingly good fit (R^2 =.71):

$$Y = 1.56 X^{0.65}$$

where Y... number of employees
X... fixed assets of sponsoring firm in thousands of dollars

The size of the exponent (<1) indicates, as expected, a diminishing rate of employment growth as company size increases above a certain level (see overleaf graph). This is illustrated by the median employment figures for four size groups of companies:

Table 2

	Company Size (Fixed Assets)			
	below $250,000	$250,000-$2 mil.	$2-5 million	above $5 mil.
median fixed assets	$96,000	$943,000	$2,815,000	$6,290,000
median employment	29	192	287	450
fixed assets/job	$ 3,300	$ 4,900	$ 9,800	$ 14,000

Although the small sample sizes for each subgroup do not permit conclusive findings, the above broad orders of magnitude tend to confirm a relative greater labor-intensity of smaller-scale operations and a significantly greater capital-intensity for companies with fixed assets over $2 million.

DFCs Catering to Relatively Small Firms. Given the Bank's recent involvement with SSE few hard data are available as yet but a comparison is possible from two countries (Korea and India) where the Bank has assisted DFCs which cater to different size groups of enterprises (MIB-Korea and SFCs-India assist small firms whereas KDFC-Korea and ICICI-India assist larger borrowers).

Table 3

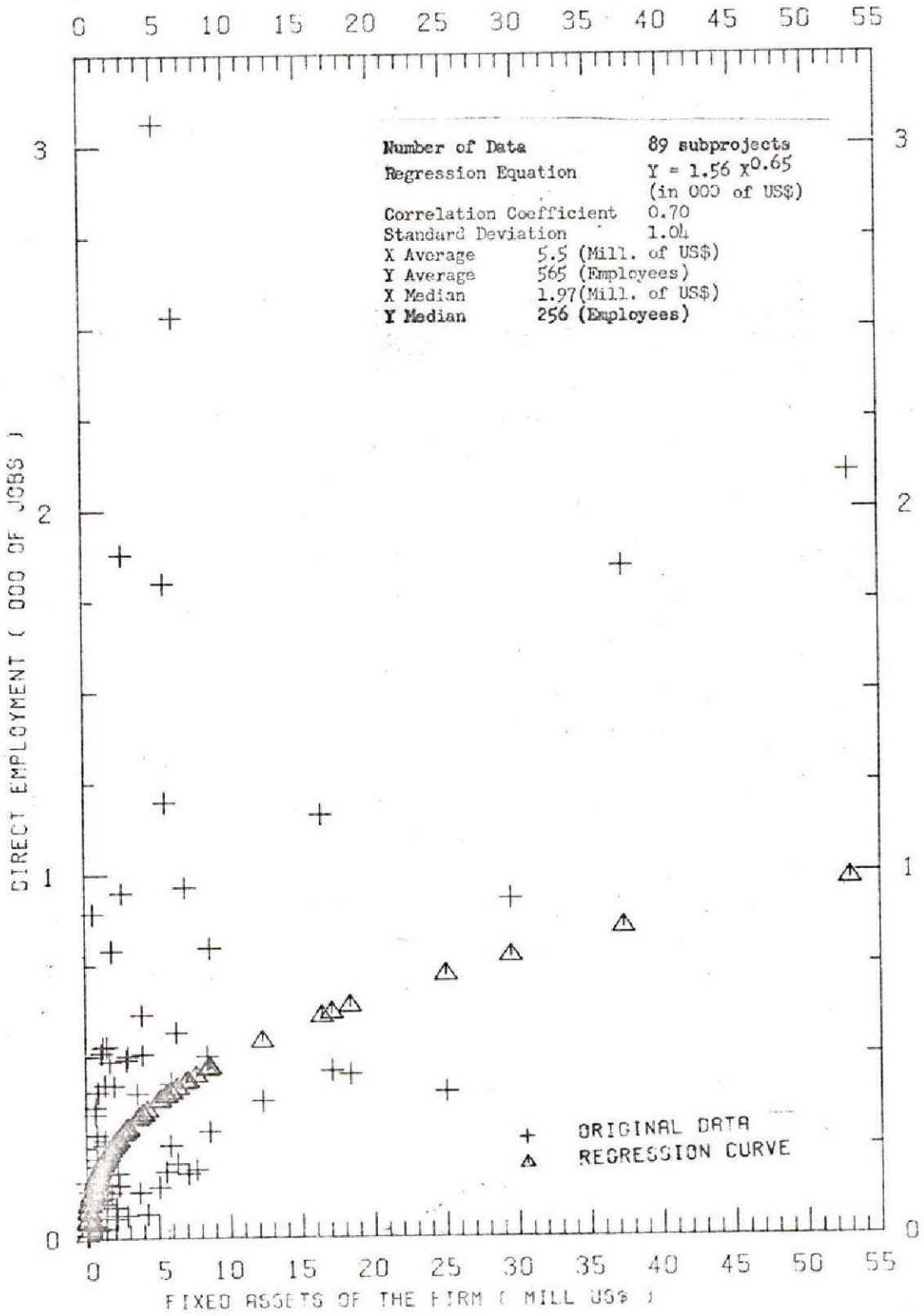
	Korea		India	
	MIB	KDFC	SFCs	ICICI
average fixed assets/ employment	$5,900 1/	$17,000	$4,300	$11,400

These results corroborate the broad orders of magnitude indicated in ANNEX 1 which illustrate the greater labor-intensity of SSE.

1/ Data from recent analysis by the Asian Development Bank.

GRAPH = 1

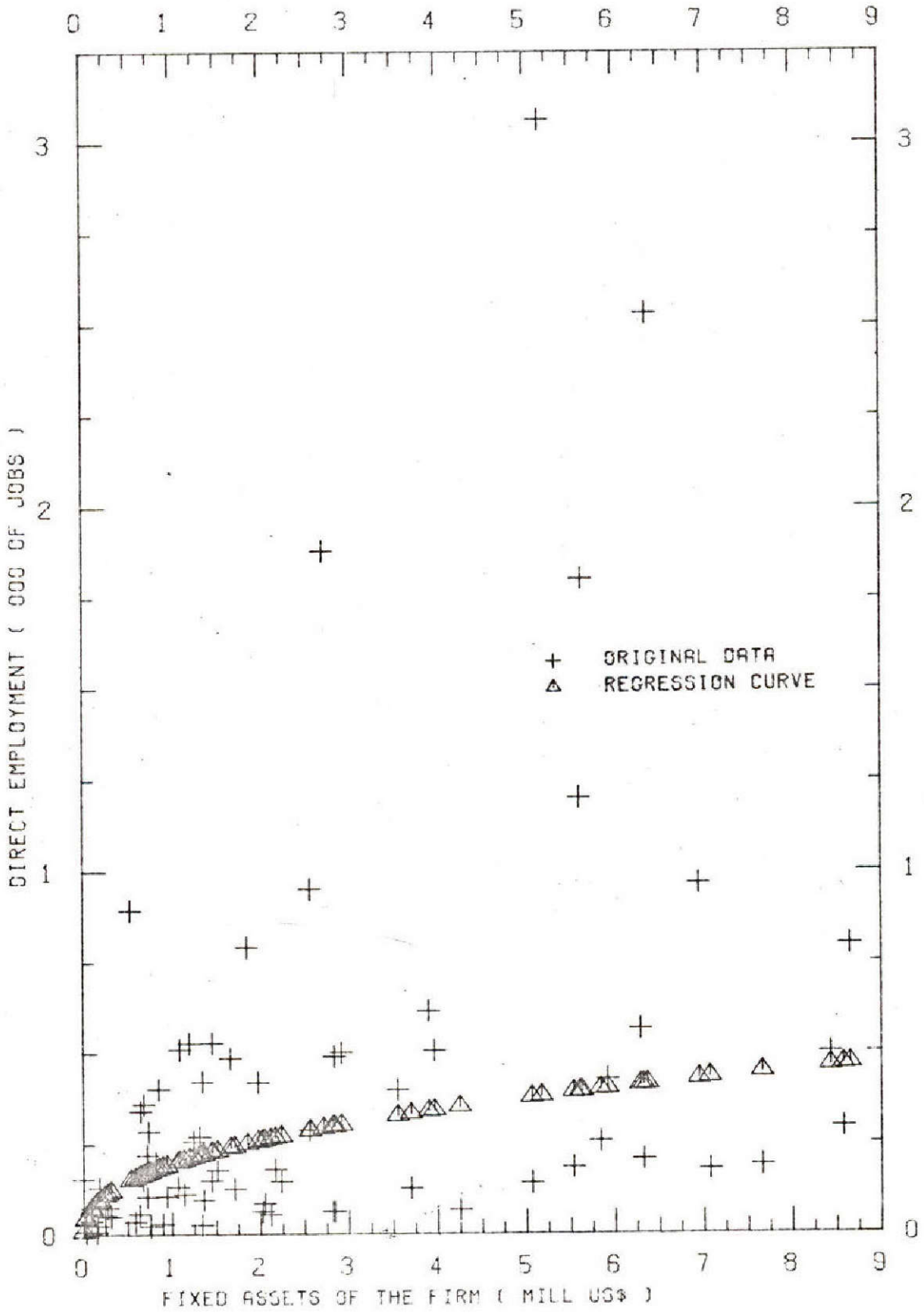
COMPANY SIZE AND DIRECT EMPLOYMENT



(For partial enlargement of this graph, excluding companies above $10 million, see Graph 1A)

GRAPH # 1A

COMPANY SIZE AND DIRECT EMPLOYMENT



Sectoral Comparisons. Many studies have documented significant differences in the labor-intensity of various industrial sub-sectors; we shall highlight the findings of two recent reports and augment them with the results from our sample.

A recent ADB investigation of small/medium firms assisted by MIB (Korea) has found firms with below average assets/labor ratios in the following sub-sectors: electronic assembly, footwear and garments, cutlery, bicycle parts, small metal and wood products. A much larger sample (435 companies) studied by ICICI (India) yielded sector results with below average assets/job ratios for glass and pottery, textiles, machinery manufacture, electrical equipment and food products (sugar excluded). High assets/job ratios characterized chemicals, non-ferrous metal products, cement, automobile and cycles, and pulp and paper.

Our sample yielded the following average fixed investment/job figures (N.B. that these are project-related data; company-related information was not adequate to permit sectoral comparisons): leather and shoewear ($5,400), mechanical parts ($9,300), electrical machinery ($11,500), paper ($11,900), mining ($14,500), metal products ($15,900), textiles ($16,500). Industries with high cost/job ratios include concrete and cement ($41,500), chemicals ($20,500) and hotels ($18,800).

Employment Characteristics of Bank-assisted DFC Sub-projects

For 203 projects data were available on fixed investment/job ratios and on the amounts lent by DFCs. The table below gives the breakdown by fixed cost/job:

Table 4

Fixed Investment/Job	No. of Sub-projects	%	Loan Amount ($ million)	%
Up to 5000	31	16	28.9	8
5000 to 10000	38	19	28.6	8
10000 to 15000	29	14	42.9	13
15000 to 20000	19	9	45.7	13
20000 to 25000	18	9	27.9	8
25000 to 40000	24	12	64.3	19
40000 to 100000	33	16	79.3	23
Over 100000	11	5	26.3	8
Total	203	100	344.1	100

About half (49%) of the projects had a fixed cost/job below $15,000. They accounted for 30% of total DFC assistance extended to the 203 projects. The variation in cost/job ratios for projects is considerably wider than the

range in fixed assets/employment for sponsoring companies. It was found that 43% of the projects had a cost/job ratio exceeding $25,000; they accounted for 50% of DFC assistance to the 203 projects.

These findings are not unexpected since several large projects involved modernization or balancing operations with relatively little employment creation. Although, as mentioned above, the sample is biased towards the larger projects, it can be concluded, however, that most of the Bank's assistance has gone to relatively capital-intensive operations.

The median direct employment generation is for 99 jobs and the median fixed investment/job figure for the sample is $16,350. The incremental cost/job ratio is thus considerably higher than for the firm as whole. This is confirmed by a 1975 study undertaken by ICICI (India) of about 500 companies in its portfolio, which yielded an incremental (project-related) cost/job ratio which was almost three times higher than the fixed assets/employment ratios of sponsoring firms.

As with company size, project size tends to be positively correlated with employment generation, as indicated by a logarithmic regression analysis ($R^2 = 0.7$) similar to the one above:

$$Y = 0.89\ X^{0.64}$$

where Y... Direct jobs generated
X... Fixed investment by project in thousands of dollars.

The overleaf graph shows diminishing employment generation effects as project size increases; for investments over $2 million the curve flattens increasingly, pointing to substantially smaller employment effects of large projects. This feature is confirmed when comparing project sizes above ("A" projects) and below ("B" projects) the "free limit".

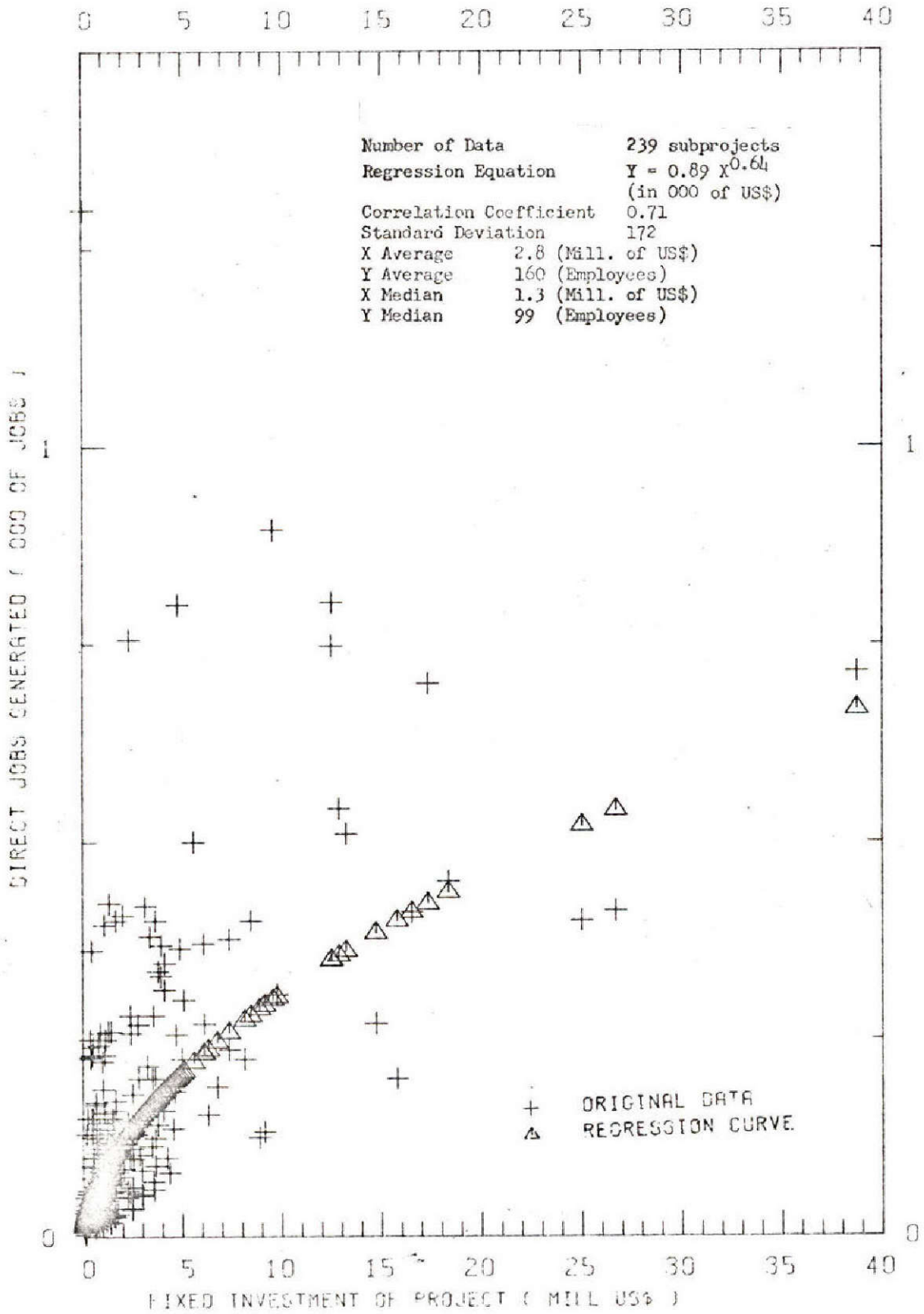
Table 5

	B-projects	A-projects
Number of projects	100	166
Median fixed investment	$730,000	$1,708,000
Median employment	57	100
Median fixed investment/job	$ 12,800	$ 17,080

"B-projects thus showed a considerably greater employment effect than "A" projects. (It should be noted, however, that there is some overlap between the two categories, since DFCs have different "free limits".) We will comment on this further below when attempting to reach a more balanced estimate on the capital/labor mix in DFC projects.

GRAPH - 2

PROJECT SIZE & D EMPLOYMENT GENERATION



(For partial enlargement of this graph, excluding projects above $10 million, see Graph 2A)

and slum upgrading schemes of the Madras Urban Development Project. It is proposed under the project that work sheds be provided by longer term, lower interest rate loans since the Government prefers that these be built for sale by hire-purchase rather than for rent, and it has not proved possible to interest banks in the venture.

The Small Industry Development Corporation will build the sheds and extend loans to small industry entrepreneurs to cover about 70% of the estimated total cost of machinery. The balance is expected to be available from other sources, including local banks. Preference will be given to persons who are prepared to stay in the area and willing to recruit labor from the project area. Working capital will be provided by banks which have agreed to locate branch offices on the site. Most of the small industries are expected to be light engineering workshops producing for larger industries in the area. Technical, consulting and marketing services will be available. It is expected that linkages would develop between the small and cottage industries and selected training-cum-production centers might be used for training in more industrial activities.

Latin America and the Caribbean

In El Salvador (FY77), after providing limited credit assistance to small production co-ops in areas developed under the first urban project, the second project will expand the credit and technical assistance to any small enterprises meeting basic eligibility criteria concerning size, present incomes etc. Projects to be appraised in coming months in Mexico (FY78) and Colombia (FY78) have similar components. The small business component of the Guatemala Earthquake Reconstruction Loan (FY77) specifically focuses on those enterprises that produce home building materials such as bricks, blocks, door frames etc.

DRAFT OF CIRCULAR LETTER TO BANK FINANCED DFCs

Dear _____:

I am writing to you, as a valued client and channel for World Bank assistance to productive enterprises in your country, to seek your cooperation in intensifying efforts to alleviate poverty and to create more opportunities for gainful non-farm employment. This is a circular letter, and some of the specific points made may not apply to your situation, but most of them are generally applicable -- and certainly of general interest in this interdependent world -- so I do not hesitate to address you collectively.

There is no need to emphasize to you the problem that is posed in most developing countries by the continued rapid growth of the labor force, the progressive displacement of workers from agriculture and the explosive increase in numbers seeking a livelihood in the towns and cities. Most of these people are poor and unskilled, coming from impoverished rural areas and city slums. They have the potential for contributing to the progress and transformation of national economies, but only if they can be absorbed into genuinely productive, non-farm employment.

The fostering of productive employment undoubtedly concerns you as much as it does the World Bank. But we must recognize that much of the industrial investment that we have financed jointly in recent years has entailed costs per job so high that the capital resources available, domestic and foreign, would suffice at similar costs to cover only a fraction of the incremental jobs needed. This is in no way a criticism of the efforts you and we have made in the past, but for the future the ineluctable arithmetic shows that much greater numbers of jobs need to be created, at much lower unit cost, in order to make a dent in the massive problem of world unemployment/

/underemployment. The World Bank would like to give whatever assistance it can to this effort, and we look to you and to other development institutions in your country to advise us how we might help most effectively.

One approach to greater job creation that the Bank considers promising is for financial institutions like yours to exmaine more explicitly, in the course of project preparation and appraisal, the potential for using more labor-intensive technologies without prejudice to the efficiency or profitability of the projects in question. This is a complex subject, about which definitive information is not readily available, but there can be little doubt that in a wide range of sub-sectors alternative technologies do exist that are efficient for different country situations and f actor endowments. With a view to assisting our member countries and DFC clients to take fuller advantage of these alternatives, we are proposing to sponsor a pilot Technology Referral Service that would help to identify and focus them more quickly and systematically for practical investment decisions. A more detailed summary account of this TRS is attached [Annex 3] and we would welcome your participation therein.

A second approach may be to give greater attention to certain sectors that may be efficient generators of employment -- small scale construction, transportation, processing, warehousing, etc. -- activities which have sometimes been neglected, relative to manufacturing industry, by financing institutions.

A third area of potential DFC initiative is the encouragement and assistance to small scale enterprise (SSE) -- a catch-all that may include firms of widely different sizes and types, ranging from small manufacturers using modern technology, through organized non-manufacturing activities like those mentioned above, down to petty traders and transporters, traditional artisans,

sometimes called the "informal" sector. Obviously the significance and mix of these different categories vary widely among countries and regions; and their respective problems and needs, as well as the kinds of institutional attention that it is appropriate and feasible to give them, will differ likewise. Sometimes there can be developed symbiotic relationships between SSEs and larger firms, the former efficiently performing ancillary functions or subcontracting or filling niches in the market. For a variety of reasons, SSEs appear on the whole to employ more labor per unit of capital invested than do larger enterprises, and this is increasingly the case toward the smaller and less "formal" end of the scale. Hence the Bank is giving them increasing attention, seeking to find means and criteria for assisting them effectively, and we would welcome your suggestions.

I appreciate that many of our DFC clients do not feel particularly drawn toward, or expert in, the financing of SSE, and I do not advocate that DFCs which have had success in sponsoring and financing sound industrial projects should plunge headlong into the riskier SSE environment without good reason. Some have deliberately taken the initiative to do so, in pursuit of their developmental role, and we support them; and in several countries intermediaries oriented specifically toward SSE exist or are contemplated and are candidates for our support. In almost all countries possibilities exist for DFCs to encourage smaller scale and generally more labor-intensive units through

(a) assisting the development of systematic subcontracting and technical assistance arrangements between larger and smaller firms;

(b) facilitating institutional procurement of standard items from SSE;

(c) financing industrial estates, where appropriate;

(d) exploring substitutes for conventional collateral requirements, which often pose a major problem for SSEs;

(e) providing more liberal financing of working capital, which for SSEs is frequently more important than fixed asset financing and which may help firms of all sizes to improve capital utilization.

(f) developing hire purchase, leacing and other forms of intermediation suitable for SSEs.

There are undoubtedly many other ways in which your organization could help to promote productive job creation, and in which we might render assistance. We shall welcome your suggestions.

I am writing a parallel letter to the Government in your country, recognizing that public policies and attitudes have a profound influence both on the investment climate and choices and on DFC priorities. We hope to initiate a continuing dialogue with the Government, with our institutional clients and with the public or private enterprise sector that is the ultimate beneficiary of Bank lending through DFCs.

With kind regards,

Sincerely,

Robert S. McNamara

DRAFT OF CIRCULAR LETTER TO GOVERNMENTS

Dear Mr. Minister:

In various public statements made in recent years, I have drawn attention to the distressing conditions that prevail among the urban poor in most of the developing world, conditions which threaten to deteriorate still further in many countries as a result of continued rapid growth of the labor force, the progressive displacement of workers from agriculture, and the consequent explosive increase in the numbers seeking a livelihood in the towns and cities.

The best hope for alleviating this misery lies in the creation of productive employment, through (a) the intensification of agricultural production, and (b) the development of non-farm job opportunities on a greatly expanded scale. The Bank is devoting major efforts toward both these objectives, and we would hope, with the help of our member governments, to devise increasingly effective means to pursue them.

Creating real jobs -- not "make work" or work-spreading occupations -- requires investment, and all of us are continually faced with the wide gap between investment requirements and capital resource availabilities. This gap can be narrowed in three ways: by increased transfers from the rich to the poorer countries; by increasing domestic savings within the poorer countries and mobilizing them more effectively for investment; and by allocating all resources, foreign and domestic, more efficiently. You know that one of our main concerns has been to secure an increased flow of resources from rich to poor countries, and we shall continue in this effort, but even if our most optimistic hopes could be realized there would remain a serious resource gap. In this communication I therefore address myself to the other two approaches, which depend essentially on national decisions, although the World Bank may be able to assist in a modest fashion.

In the continuing dialogue about development policies between your Government and the Bank, the need to maintain and increase the rate of domestic savings has been a constant theme. It underlies the emphasis placed on recovering from beneficiaries, insofar as possible, the costs of facilities and services provided to them through development projects. It is our primary concern in urging positive real interest rates, in order to avoid the er sion of household and institutional savings and to facilitate efficient financial intermediation to transfer these savings to high-yielding activities.

We are increasingly impressed with the need, in most developing countries, to spread the available capital resources more widely to reduce investment cost per job in order to buy a greater volume of incremental employment. I have written to the Development Finance Companies with which the Bank is associated, urging them to give explicit attention to the potential for using more labor-intensive technological alternatives, where this is possible without prejudice to overall economic efficiency, and we are proposing to sponsor a Technology Referral Service that would help to identify and focus such alternatives systematically. We also suggest that the DFCs examine the needs of certain sectors that may be efficient generators of employment, which have sometimes been neglected, relative to manufacturing industry, by financing institutions; that encouragement and assistance be given to small enterprises, which often tend to employ more labor per unit of capital than do larger firms; and to consider various other means to encourage smaller, and generally more labor-intensive, activities. I attach a copy of the letter in question.

As our thinking on these matters continues to develop we shall remain in communication with you, and will welcome your views and suggestions as to how our common objectives may best be advanced.

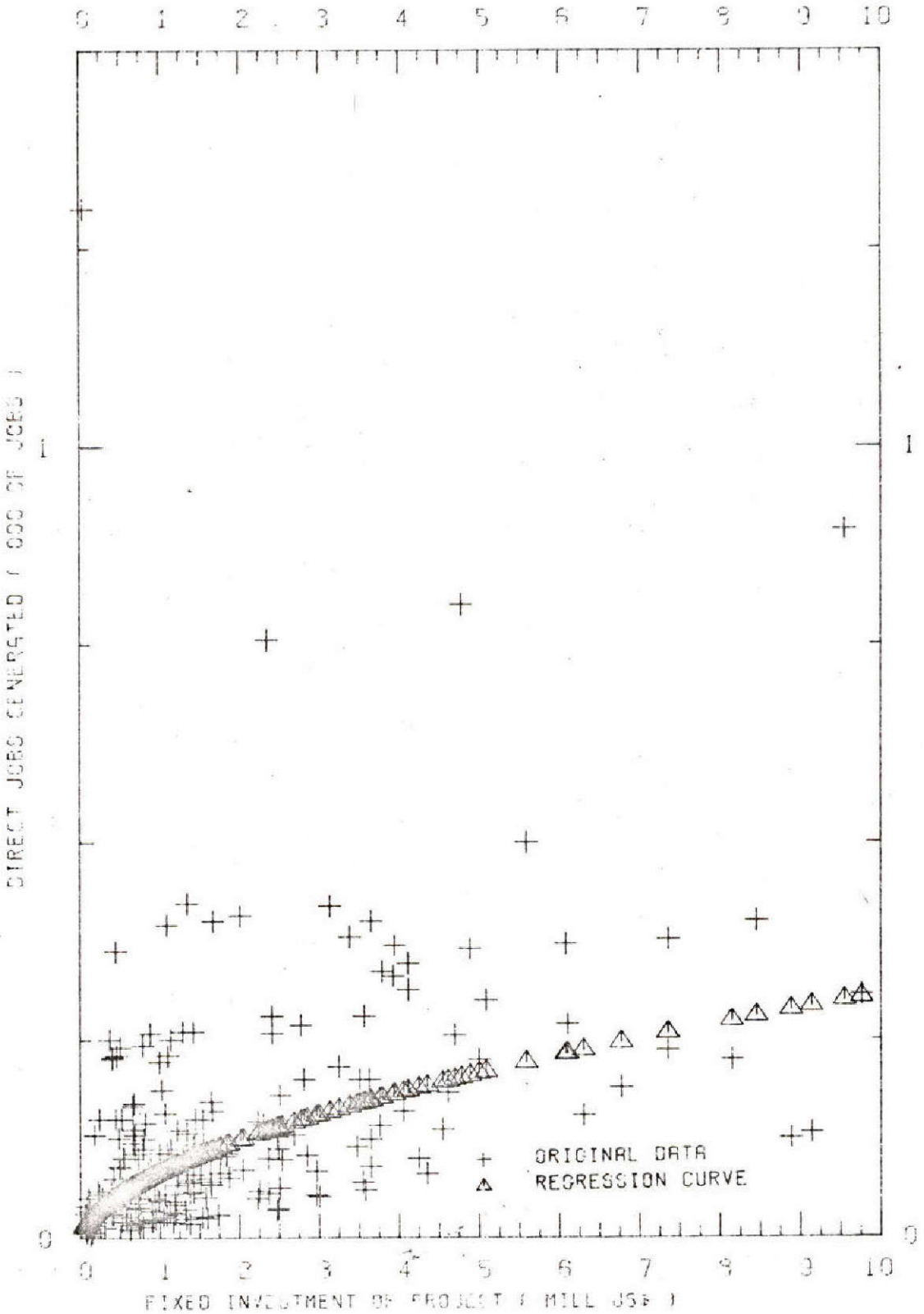
With kind regards,

Yours sincerely,

Robert S. McNamara
President

GRAPH # 29.

PROJECT SIZE AND EMPLOYMENT GENERATION



Regional Comparisons. The table below shows selected median figures by region:

Table 6

	EMENA	LAC	Africa	EAP	South Asia	Total 1/
Number of projects	75	77	28	74	61	315
Median fixed investment ($'000)	1,639	1,079	1,962	1,732	675	1,155
Median number of jobs created	71	62	200	141	101	99
Average fixed investment/ job ($'000), weighted by DFC loan assistance	33,230	28,310	17,490	31,130	17,810	26,810
Median fixed investment/ job ($'000)	19,410	17,580	16,340	15,090	8,500	16,350

The regional comparison shows no pronounced differences in median cost/job figures, except for the high EMENA ratio and the significantly lower South Asia ratio. The latter is, however, influenced by relatively many small projects assisted by the SFCs (India). The last line (average fixed investment/job weighted by DFC loan assistance) illustrates again that most of the DFC's financial assistance has gone to relatively capital-intensive projects.

Skilled and Unskilled Employment. Of considerable importance in studying the employment effect of projects is their demand for skilled and unskilled employment. The latter has, by definition, a greater impact in providing jobs for poor people in urban and rural areas. We found that, on average, 62% of the total employment generated directly was for unskilled jobs with relatively small projects generating an even higher share as follows:

Table 7

	Fixed Investment Cost		
	below $250,000	$250,000-$500,000	over $500,000
Number of projects	5	6	68
Ratio of unskilled jobs to total jobs (%)	75.6	63.2	61.9
Average fixed investment ($'000) per job	2,850	8,280	18,900
Average fixed investment ($'000) per unskilled job	3,760	13,100	30,500

The above results have to be interpreted with considerable caution since the sample contained few projects under $500,000 which had information on unskilled employ-

1/ Of the total number of projects (315), information on employment creation was available for 266 projects. Furthermore, a few extreme and clearly unrepresentative values have been deleted.

ment. Furthermore, definitions of "unskilled" labor have almost certainly varied among DFCs and enterprises. In fact, it would be an important area of research to investigate the demographic features of employment generation. Finally, the data relate to projects, rather than companies, of different sizes but it is logical to expect that small enterprises, particularly those in the informal sector, would also generate, on average, a relatively larger share (about two-thirds as against one-half for larger enterprises) at a significantly lower investment cost. Comparative data for India and Colombia 1/ support this hypothesis.

Project Size and Import Propensity

The DFCs were found to finance, on average, about one-half of fixed project investment. However, for large projects above a fixed investment cost of about $1.7 million the DFC financing share diminished somewhat due to maximum exposure considerations.

A similar relationship emerged when the IBRD contribution was compared with fixed investment costs. The former can be taken as proxy for the share of imported machinery and equipment in fixed investment, although the total import share is thereby underestimated for countries where indirect imports (off-the-shelf-purchases) are significant and for those (mostly large) projects where other foreign financing (direct foreign investment, suppliers' credits et al) is involved. Data on these aspects were not available, however. Nevertheless, a logarithmic regression of the Bank financing share against fixed investment showed already a relatively strong correlation (R^2 = .81) as follows:

$$Y = 4.78\ X^{0.92}$$

where Y... Fixed investment of project in thousand of dollars
X... IBRD loan amount for project in thousand of dollars

The overleaf graph demonstrates an almost linear equation with the Bank financing an import value equivalent to about 21% of fixed project investment. Only for large projects does the Bank share diminish somewhat on average, which is again consistent with maximum exposure considerations. In some cases (for instance, for the private financieras in Colombia) exposure limits were negotiated by the Bank; for most other DFCs they are contained in their policy statements.

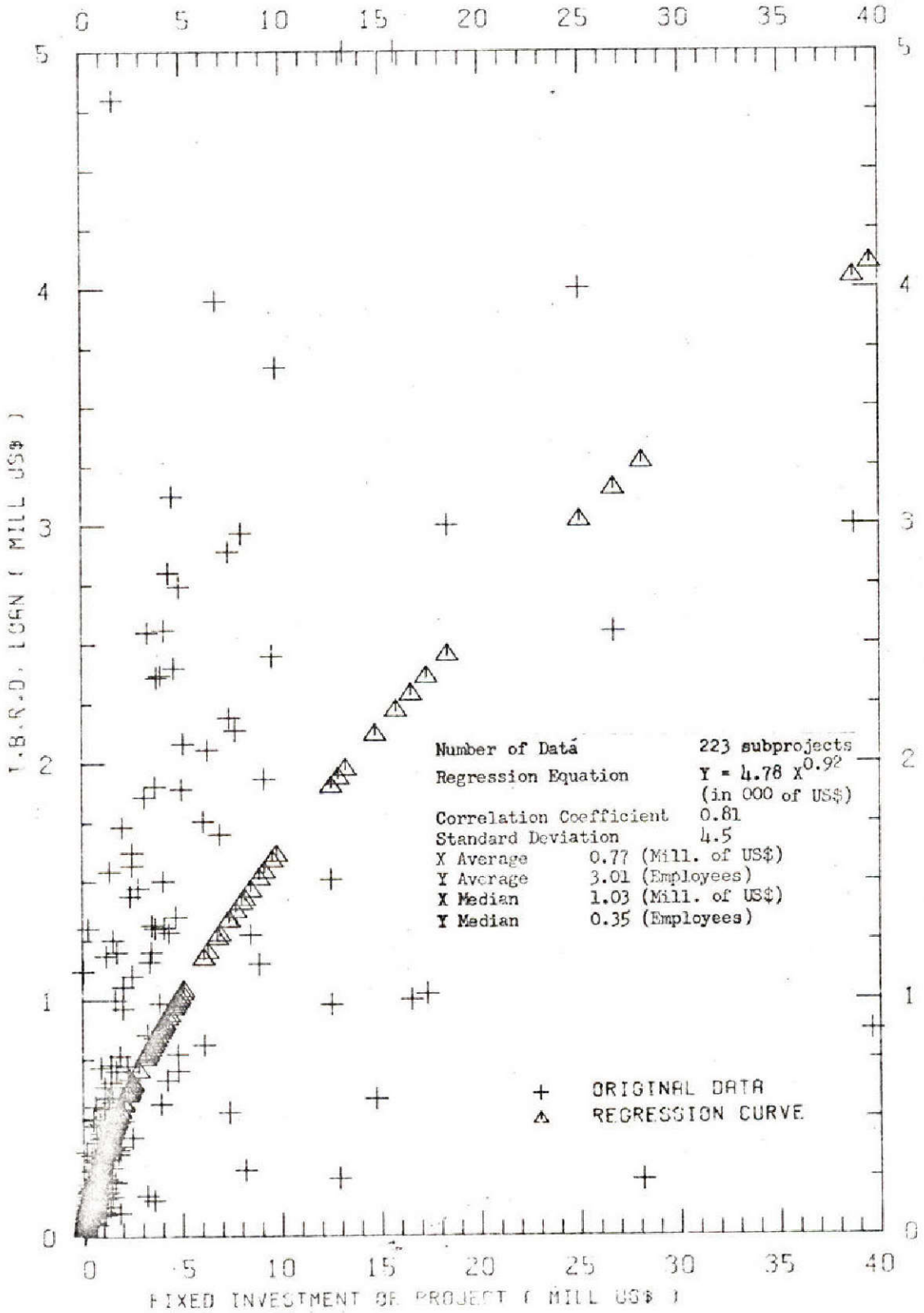
If all foreign financing (other than the Bank) could have been captured, the exponent in the above equation would certainly have increased from 0.92 to well above unity, indicating a concave exponential relationship

---

1/ The Colombia Special Study showed a 60% and 50% share of unskilled labor, respectively, for enterprises with assets below and above Col. $35 million. In India, the 1975 study by ICICI on its portfolio showed that unskilled workers account for 44% of total employment in 435 assisted (mostly large) companies. By contrast, subproject data for the smaller enterprises assisted by the SFCs show a 59% share of unskilled workers.

GRAPH # 3

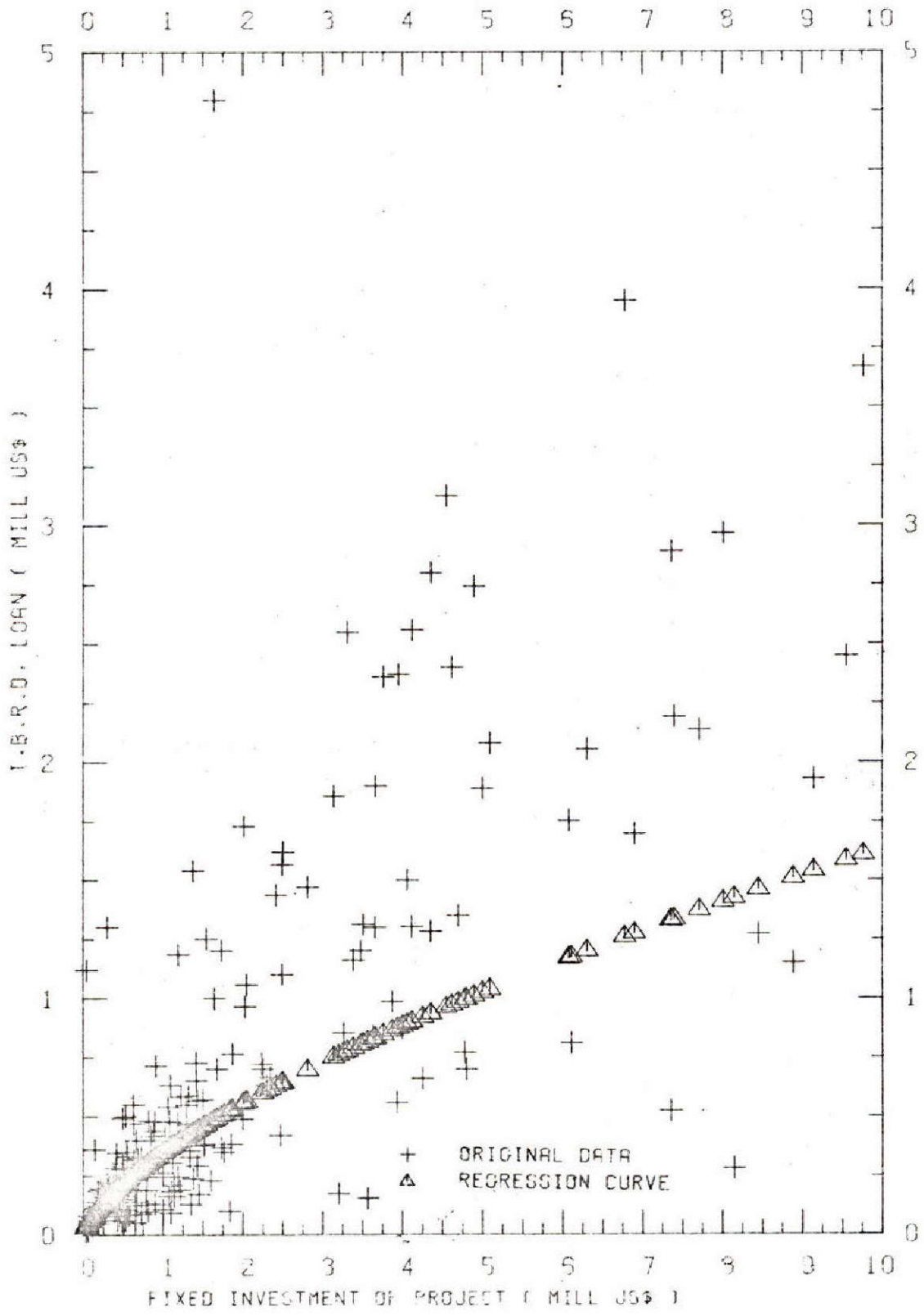
PROJECT SIZE AND SHARE OF DIRECT IMPORTS IN FIXED INVESTMENT



(For partial enlargement of this graph, excluding projects above $10 million, see Graph 3A)

GRAPH # 39

PROJECT SIZE AND SHARE OF DIRECT IMPORTS IN FIXED INVESTMENT



between project size and import propensity. Furthermore, as mentioned above, the sample contained relatively few small firms and no businesses from the informal sector. These enterprises require mostly local currency financing so that, over the whole size spectrum of firms, the import content in fixed investment cost increases progressively with project size. Comparative data for Colombia (where the direct import content in fixed investment was 24% and 45% for small and medium firms, respectively) and India (where the corresponding figures were 16% and 35%) are indicative of this trend.

A similar trend would characterize the share of imports in recurring material inputs for different sizes of firms. The Colombian Special Study yielded that larger enterprises had a 50% higher import component in material inputs: 11% of total material inputs required by relatively small enterprises (i.e. those with employment under 200) were imported, compared to a 18% share for larger enterprises.

Overall Capital/Labor Mix in DFC Sub-Projects

The 315 projects included in our sample yielded a median fixed investment per direct job generated of $16,350. Excluding a few extreme and clearly unrepresentative projects, the average cost/job was about $20,000 and the weighted average cost/job, with the DFC financing share in fixed project cost constituting the weights, was $26,810.

The overleaf table shows selected median values for those DFCs which were represented in the sample by at least 8 projects. There is a wide range among DFCs, from $6,500 to $38,600, in the median fixed investment per job, with 6 DFCs (38%) showing a median value below $10,000 and 11 DFCs (69%) below 20,000. However, several of the DFCs are represented mostly by "A" projects and the resulting median cost/job figures are higher than what the universe of their projects would show.

From Bank appraisal reports of DFCs further information is available which shows the following average fixed cost/job ratios:

PDCP (Philippines) - $27,450 (based on projects approved through 1974)
KDB (Korea) - $18,720 (based on 32 recent projects to be financed by the Bank)
MIB (Korea) - $2,720 (based on 174 projects approved in 1973 and 1974)
MIDF (Malaysia) - $14,700 (based on all projects approved in 1973/1974)
DBS (Singapore) - $8,420 (based on Bank-assisted projects financed in 1973)
CDC (China) - $25,000 (based on 81 projects approved in 1974)

Given the wide range of DFC's cost/job ratios it is difficult to arrive at a balanced estimate of the average fixed cost/job figure (in 1976 dollars) for the universe of projects assisted by the about 70 Bank-assisted DFCs. It is clear, however, that the average is substantially higher than the figure ($10,200) yielded by the Special Study series in six countries. Our best estimates are that the average fixed investment per direct job generated for the universe of DFC-financed sub-projects is about $16,000 for all projects assisted during 1976 and that at least half of them have a fixed cost/job ratio below $8,000.

Table 8

Median Employment Figures for Selected DFCs

Region/Country	DFC	Number of Projects	Median Fixed Investment ($'000)	Median Employment	Median Fixed Investment per Job ($)
LAC					
Colombia	Priv. Fin'as	24	1,342	73	15,710
Ecuador	COFIEC	13	576	24	31,510
Mexico	FONEI	22	1,707	61	38,630
Trinidad/Tobago	TTDFC	9	170	16	10,600
South Asia					
Pakistan	PICIC/IDBP	18	530	130	10,050
India	SFCs	25	648	100	6,570
India	ICICI	22	1,463	125	11,940
EAP					
Thailand	IFCT	17	1,123	126	16,310
Philippines	DBP	12	3,571	227	11,070
Indonesia	BAPINDO	10	1,800	70	19,320
Africa					
Kenya	IDB	8	3,050	219	15,030
Mauritius	DBM	8	1,987	270	15,970
EMENA					
Iran	IMDBI	15	1,547	70	29,200
Turkey	TSKB	20	2,871	137	25,210
Morocco	BNDE	20	1,442	55	20,480
Tunisia	BDET	20	1,106	38	12,170

These estimates are based, in the first instance, on actual data from some 250 Bank-assisted DFC sub-projects (average fixed investment/job of $20,000) as well as from over 350 recent DFC sub-projects (average fixed investment/job of $17,800)1/ which were included in UNIDO's "Scheme for the Exchange of Information on Industrial Projects in Developing Countries." These data are contained in Tables 9 and 10 (overleaf); they have been pooled below in Table 11 to show employment trends with rising project costs:

Table 11

Project Cost and Employment in DFC Sub-projects

Fixed Investment (US$ '000)	No. of Projects	%	Fixed Inv. ($ '000)	%	No. of Jobs	%	Fixed Inv. per job ($)
Up to 500	177	28.2	41,752	1.6	17,247	12.2	2,421
500 to 2000	215	34.2	239,110	9.2	24,476	17.3	9,769
2000 to 10000	184	29.3	801,150	31.0	54,894	38.7	14,595
over 10000	52	8.3	1,506,714	58.2	45,038	31.8	33,454
Total	628	100.0	2,588,726	100.0	141,655	100.0	18,275

The table illustrates a rising capital intensity with increases in the fixed investment cost of projects with extreme values for cost/job ratios of $3,000 for projects with a fixed investment below $500,000 and over $30,000 for projects costing more than $10 million. The average cost/job is $18,275 or about $20-21,000 in 1976 prices.

However, the composition of this sample of 628 projects is not, as pointed out earlier, truly representative of all Bank-assisted DFC sub-projects since relatively large projects are over represented. Unfortunately, no aggregate statistics are available on the size distribution of projects assisted by all DFCs, but we do have some evidence that large projects, involving a fixed investment of more than $2 million, account for only one-half of total DFC-financing.2/ Table 12 shows, on the basis of several Bank appraisal reports on DFCs, our estimates as to the current and projected (1980) distribution of DFC lending by size of projects.

1/ The median and average fixed investment figures of the Bank sample projects were $1.2 million and $3 million respectively; the corresponding figures were $1.1 million and $4.9 million for the 369 DFC projects in UNIDO's sample. The UNIDO sample which contained also non-Bank-assisted sub-projects showed median and average fixed cost/job figures of $10,650 and $17,800, respectively; i.e. although the UNIDO sample included, on average, even costlier projects than those in the above Bank sample, it showed lower cost/job figures.

2/ 46% of the aggregate loan amount from about 8,500 sub-loans made by DFCs in the 1970-72 period involved amounts below $750,000. 54% of DFC lending has therefore benefited large projects with a fixed investment of at least $2 million.

Table 9

Employment Generation of Bank-Assisted DFC Sub-projects

Fixed Investment (US$ '000)	No. of Projects	%	Fixed Inv. ($ '000)	%	No. of Jobs	%	Fixed Inv. per job ($)
Below 500	49	18.9	14,447	1.9	3,036	7.8	4,759
500 to 1,000	50	19.3	36,115	4.7	3,641	9.5	9,785
1,000 to 1,500	40	15.4	48,979	6.4	4,322	11.1	11,333
1,500 to 2,000	25	9.7	41,704	5.5	2,224	5.7	18,752
2,000 to 2,500	17	6.6	39,059	5.1	3,054	7.8	12,790
2,500 to 4,000	29	11.2	94,052	12.4	5,100	13.1	18,442
4,000 to 10,000	32	12.3	190,867	25.1	10,630	27.3	17,956
Over 10,000	17	6.6	296,564	38.9	6,900	17.7	42,980
Total/Average	259	100.0	761,787	100.0	38,957	100.0	19,555

Table 10

Employment Effects of Different Project Sizes
(UNIDO Sample of DFC Sub-projects)

Fixed Investment (US$ '000)	No. of Projects	%	Fixed Inv. ($ '000)	%	No. of Jobs	%	Fixed Inv. per job ($)
Up to 500	128	34.7	27,305	1.5	1,211	13.8	1,921
500 to 1,000	49	13.3	37,146	2.0	5,599	5.5	6,634
1,000 to 1,500	25	6.8	29,479	1.6	3,682	3.6	8,006
1,500 to 2,000	26	7.0	45,687	2.5	4,958	4.8	9,214
2,000 to 2,500	12	3.2	27,742	1.5	1,665	1.6	16,661
2,500 to 4,000	42	11.4	139,697	7.7	15,635	15.2	8,935
4,000 to 10,000	52	14.1	309,733	17.0	18,810	18.3	16,466
Over 10,000	35	9.5	1,210,150	66.2	38,138	37.1	31,731
Total/Average	369	100.0	1,827,211	100.0	102,698	100.0	17,792

Table 12

Distribution of DFC Lending by Project Size

Fixed Investment (US$ '000)	Average Cost/Job (in 1976 US$)	Share of Aggregate DFC Lending 1976	1980
Up to 500	3,000	10%	25%
500 to 2000	11,000	40%	40%
2000 to 10000	16,000	35%	25%
Over 10000	37,000	15%	10%
Weighted average fixed investment/job		$15,855	$12,850

Projects costing less than $2 million constituted already two-thirds of the total number of projects included in the above sample of 628 projects. It can therefore be stated with confidence that at least two-thirds (probably three-fourths) of all DFC-assisted sub-projects have a fixed cost/job ratio below $11,000 and that at least half of all projects show a cost/job relationship below $8,000.1/

Given some uncertainty about the distribution at the upper end of the project size spectrum, the overall estimate as to the fixed cost/job ratio in total (Bank and non-Bank-assisted) DFC lending is more tentative. Our best estimate is that DFC sub-projects as a whole would show a fixed investment/direct job ratio of about $16,000 in 1976.

There is a further reason why this estimate has to be regarded as tentative: detailed information on recent DFC clients was not available. Some of them (for instance DYB-Turkey and BAD-Algeria) assist predominantly large clients; other recent DFCs (for instance CFP-Colombia, BIDI-Ivory Coast and BCD-Cameroon) assist small enterprises. It is possible that their combined effect would tip the scale in favor of relatively capital-intensive projects so that the $16,000 figure may be an underestimate. On the other hand, if the increased emphasis on SSE development in DFC operations materializes, an average cost/job figure below $16,000 (in 1976 prices) should result by 1980.

As shown above in Table 12, if the share of projects costing under $500,000 increases to 25% (with corresponding decreases in the share of larger projects above $2 million), an average fixed cost/job of about $13,000 (in 1976 prices) could emerge in 1980. In this case it would then be likely that the median fixed /job figure would drop to about $5,000, i.e. half of the total number of sub-projects assisted would have a cost/job ratio below $5,000.

1/ The average loan amount in the 1970-72 sample of 8,500 loans was $210,000. A conservative estimate would put the median project size (fixed investment) in the $500,000-$1 million range. The fixed cost/job for this project size (calculated from Tables 10 and 11) is about $8,000.

TECHNOLOGY REFERRAL SERVICE ON APPROPRIATE PRODUCTION AND PRODUCT DESIGNS FOR PROJECTS FINANCED BY DFCs

A. Rationale

1. Experience in many developing countries has shown that industrial enterprises, and small enterprises in particular, frequently suffer from lack of access to reliable information on alternative technologies. This often leads to choice of machinery or processes which involve the use of more scarce capital than necessary and create fewer jobs than might be possible; they may also be less profitable, given comparative factor prices. The knowledge gap may apply to whole processes and production systems as well as to individual items of machinery.

2. A number of institutions, based in both developed and developing countries, provide information services on alternative technologies 1/. UNIDO has also operated for a number of years a technical inquiry service through which it has endeavored to provide information and answers to specific requests for technological information.

3. All these efforts have encountered problems, including the following:

(a) ignorance on the part of potential clients of the existence of services which might help them;

(b) the large number of imprecise questions, which cannot be answered or require expensive and time-consuming exchanges to be made meaningful; and

(c) the difficulty (and prohibitive cost) of staffing a referral service that would be able to supply quick and reliable responses to a myriad miscellaneous questions.

4. These problems might be mitigated by introducing a screening process, so that inquiries are transmitted to the referral service only after it has been reasonably assured that they are the sort of questions to which useful answers can be given. This screening could be done by intermediaries in the developing countries, initially the DFCs associated with the Bank; an added advantage of this DFC screening would be to ensure that the questions referred would have a practical relation in most cases, to real projects in operation or in process of development. The DFCs could also play an important role in monitoring the effective use of responses by the DFC clients and feeding their evaluations back to the information-providing agencies. The role of DFCs in this process would also help to improve appraisal capabilities, by giving project officers ready access to information on technology possibilities and choices, and encouraging them to consider less capital-intensive alternatives for certain industrial projects.

1/ An outline of the functions and coverage of a wide selection of these institutions is attached.

5. The industrial sectors most needing technological information will differ from one LDC to another and therefore from one DFC to another. Agro-industries, chemical industries, food processing, metal working and other major sectors will be of interest in all areas. Questions on management, organization, finance or markets should generally be excluded from the referral process, since they are seldom susceptible to a clear, one-time answer. Most inquiries will be concerned with searching for appropriate equipment and sources where it can be procured. The clients of the DFCs served would fall mainly into three groups: (a) small enterprises inquiring about appropriate technology; (b) large and medium enterprises seeking alternative production methods that would be more labor-intensive; and (c) all sizes of enterprises seeking a new technology that offers better product design, greater efficiency of production, etc.

6. It is important that the sources of information be as widely representative as possible, not limited to one or a small group of countries. Since the appropriate technology in any specific case may well have been devised or adapted in another country similarly situated, it is essential that LDC information sources be fully exploited and encouraged to explore technology choices in depth.

7. The possibilities for more general dissemination of technological information and advice should not be lost from sight, and in the long run this might have a greater influence toward adoption of appropriate technological solutions than a simple question/answer service. It is likely, however, to be more difficult to design and organize in a form that could have an early practical impact. The proposal here is initially to establish a referral service processing specific inquiries - analysis of which, over time, might indicate more clearly the priorities and targets for wider dissemination of information.

B. Organization and Funding

8. It is proposed that the Bank encourage and support the development of a world wide Technological Referral Service, comprising a network of intermediate/appropriate technology data and research agencies, of which one would be designated as the prime contractor, the central clearinghouse agency, but with an explicit understanding that several others (in a progressively expanding grid) would feed in information and be referred inquiries. All would be compensated, on the basis of agreed consultancy fee schedules, for the time spent in researching answers.

9. The object would be to make available to intermediaries charged with promoting and financing industrial development - initially the DFCs associated with the Bank, but progressively extending to other agencies having similar purposes - a single point of contact which could, in turn, quickly draw upon a very wide range of innovative research and practical experience in alternative technologies. Access would not be limited to SSE-financing agencies, or their clients; appropriate technologies should be introduced also into large firms.

10. An agency designated by the Bank as the central clearinghouse for the Technology Referral Service would receive all the inquiries from the DFCs. Some inquiries might be answered immediately by the clearinghouse agency, but most would be referred to another unit in the network, on the basis of the nature of the question, the country context, and the known capabilities of the respondent agency. The network coverage would insure, insofar as possible, that the broadest range of technologies would be tapped, from both developed and developing countries. The clearinghouse agency would be responsible for administration of the system, charging the DFC or the Bank, as appropriate in accordance with the agreed financing arrangements, maintaining records of the inquiries and responses, analyzing samples of the latter, evaluating their adequacy, checking on the promptness with which inquiries are dealt with, etc. The choice of a clearinghouse agency will be crucial and terms of reference would need to be drawn up with care. Preliminary discussions have taken place with several potential candidates.

11. It is proposed that the Technology Referral Service costs be financed initially, in major part, by the Bank, in order to encourage its use, prove its value and enable SSEs to have access to it. Specifically, each response would be free to the client (financed by the Bank) up to $100, and 50% of the cost between $100 and $200 would be similarly subsidized. If the complexity of the inquiry were such as to push the probable cost of the response beyond $200 the DFC and its client would be informed of the estimated additional cost and could make their own decision whether it seemed worthwhile. The Georgia Institute of Technology Development Group, based on its extensive experience, estimates the average cost of a response at $50. Initial use of the system is planned as a three-year experiment through December 1979, for which roughly $200,000 would be necessary.[1/] If the three-year trial period is successful, it is expected that the system would continue thereafter on a self-sustaining basis, financed from subscriptions and fees, presumably from a widening clientele.

12. In view of the experimental nature of the Technology Referral System it will be undertaken cautiously and stepwise. The first step would be to solicit from those DFCs most active and interested in technical assistance their opinion of the potential usefulness of the System, and a specific indication of the kinds of questions that have been pertinent to projects they have recently financed (see para. 14 below). These questions, and responses rendered by the eventually designated clearinghouse agency, will help to guide the preparation of terms of reference and contract with the latter.

13. Thereafter, all the Bank-associated DFCs would be informed of the availability, purposes and conditions of the System. They would be provided with documentation covering the types of inquiries handled and the method of formulating inquiries. Sample data would demonstrate the use of the inquiry form and the response of the information agencies. The inquiries and corresponding responses would be monitored closely, in conjunction with the clearinghouse agency, not only at Headquarters but by Bank staff on supervision missions. A full review of the System's performance, the response from clients, and its technical and financial viability would be undertaken in FY1979, as the basis for deciding its future.

If funds were used more rapidly than projected within the three years, those DFCs making substantial use of the Service would no longer be subsidized, and additional funding would be limited to DFCs initiating experimental use of the Service.

C. DFC Interest

14. Thirty DFCs were queried and 28 have responded to a letter asking them for a general assessment of the need or utility of a Technology Referral Service along the lines proposed above. Bank initiative in this area was supported by almost all those responding, although the DFCs in India, Korea, and the Philippines felt that they would make little use of it because of the assistance they were receiving from technological information agencies within their respective countries. DFCC in Sri Lanka saw no potential use of TRS. Most of their clients are already established companies with underutilized production capacity.

15. The responses varied widely according to the professional engineering competence available from their own staff resources. In general little use was now being made of International Technical Assistance Agencies listed in Annex 3 and some dissatisfaction with existing services was expressed. Many of the DFCs indicated their own interest in more labor-intensive alternatives appropriate to their country but others pointed out that this was only one of many criteria in their investment decisions. Practically all were much aware of the necessity of being able to recognize technological proposals soon to become obsolete or to recognize new technology that had passed the experimental stage.

16. Many problems remain to be overcome. All the DFCs emphasized the importance of quick response by the service. It was also recognized that it would be difficult to control responses so they would be practical rather than theoretical and cognizant of the country industrial environment. Another problem is to achieve a truly international network without home country bias.

17. Although aware of the difficulties, the DFCs gave overwhelming support to the proposal. A few DFCs expressed hopes for broadening the scope of TRS beyond that proposed in the Annex. Six of the DFCs made numerical estimates of their yearly use of the system totaling 240 inquiries.

D. Feasibility Analysis

Discussions have been held on TRS and related matters with UNIDO, Georgia Tech, ITDG, IDRC, AID, ILO, UNICEF, VITA, Technoserve, and others. Bank initiative to coordinate and improve information exchange on technology was generally welcomed by these groups. Further feasibility study and refinement of details will be undertaken if the TRS concept is approved. 1/ Sample questions on technological processes relevant to recent DFC subprojects were submitted by many DFCs responding to our letter. These questions will be tried out on candidates for the clearinghouse agency. More investigation is needed on:

1/ The Bank will coordinate with UNIDO and UNCTAD, agencies which have major UN planning responsibility for technology transfer and other national, regional, and international efforts for science and technology development. (See "Transfer of Technology" resolution, Item 12, UNCTAD IV, May 5, 1976; and Resolution 3507 (XXX), "Institutional Arrangements in the Field of the Transfer of Technology," UN General Assembly, December 15, 1975.)

(a) timeliness of response by TRS;

(b) cost and technical expertise required to evaluate the particular aspects of technical inquiries and the country environment;

(c) currency, possible obsolescence of the data of information-supplying agencies; and

(d) avoidance of national bias in responses.

Monitoring and evaluation of TRS operations will involve the DFCs, engineering expertise available to DFCD, and followup by Bank staff directly to the client-user on Supervision/Appraisal Missions.

E. Conclusion

18. Bank support of a Technology Referral Service should contribute to better coordination of efforts already underway to provide technical information to the developing countries. Using DFCs as intermediaries, it should improve the choice of technology in DFC subprojects and better focus the efforts of the information resource agencies. However, such a Service in no way substitutes for - indeed should make a positive effort to enlist and contribute to - research and development facilities in the developing countries.

INTERNATIONAL TECHNICAL ASSISTANCE AGENCIES

Summary of Functions

AGENCY	DESCRIPTION	COUNTRIES	TECHNICAL SERVICES	OTHER EXTENSION SERVICES	TRAINING	INSTITUTION BUILDING
ILO (Geneva, Switzerland)	UN agency achieving objectives of employment, income distribution, productivity, and worker and consumer satisfaction, primarily through support of handicrafts, small-scale agro-industry, other rural SSE and cooperatives, training emphasis with extensive field staff of training experts; works with other UN organizations.	Worldwide, with no country preference; specific SSI manager training programs in Greece, Korea, Uganda and Swaziland; industrial cooperatives established in Burma, El Salvador, Tanzania, etc.	Help managers select appropriate technology through expert cost analysis (Also helps make authorities aware of policy issues involved in and affecting technological choice.)	In-plant consultants assisting general managers in application of new management techniques. Services often tied to local financing organization, i.e. development bank or corporative.	Management Development Branch with SSE section; training in elementary management functions and on technicians and supervisors. Cooperative Branch; cooperative education and manager training. Vocational Training Branch; technical education and on-the-job skills training in selected occupations. Achievement motivation training for entrepreneurs. Training of trainers emphasis.	Management Development Program has helped develop national management institutions in over 50 countries, forging links with industry. Helps governments set up national institutions to promote SSI. Cooperative Program helps establish national centers for coop promotion; has helped set up industrial coops. Helps establish handicraft design and common facility centers.
UNIDO (Vienna, Austria)	UN agency which establishes, strengthens, and supports local institutions and common facility structures and assists on SSI development policy and program formulation; rural decentralized industry focus; promotion of new enterprises and modernization of existing ones.	Mainly Africa and poorest regions elsewhere.	Provides guidance in selecting appropriate technology and product lines, primarily at policy level. The Industrial Information Service answers without charge inquiries regarding industrial matters.	Industrial surveys, feasibility and pre-investment studies.	Training of entrepreneurs and managers, worker in-plant group training. Training of local personnel in techniques and methods of SSI development; individual fellowships abroad.	Helps establish industrial extension and SSE development programs. Establishes and operates institutions and servicing facilities which include research, marketing and extension services. Helps plan, construct and manage industrial estates, industrial areas. Establishes domestic subcontracting exchanges. Some work on financial institutions for SSE.
UNDP (New York, N.Y., U.S.A.)	UN agency with broadest T/A program in UN group (UNDP/TA); Special Fund component for larger projects; services include T/A training, some equipment, pre-investment studies, institution building and policy and program advice to governments; provide services of industrial economists, and specialists in particular industries.	Worldwide	Provides equipment to SSI development centers it is establishing for demonstration purposes.		Trains national personnel in doing industrial surveys and feasibility studies. Six-month training abroad (fellowships) for personnel engaged in SSI development. Assistance in vocational training programs	Helps establish SSI development centers, providing T/A, on-site training and some equipment. Teams of experts for 4-5 years to plan and establish: 1) SSI service institutes; 2) industrial advisory services; 3) industrial R&D centers; 4) industrial estates. Implementation stage involves team of experts and training of national counterparts.
AITEC (Cambridge, Mass., U.S.A.)	Independent, non-profit agency specializing in research, evaluation, and the implementation of local, regional, and national development programs in Latin America; develops experimental programs; stresses employment, income distribution and community improvement, has helped establish cooperatives, small industry, and "micro" enterprises.	Programs including small industries development in Brazil, Venezuela, Colombia and Costa Rica, with small local staffs.			Vocational training. Training of local personnel. Organizes seminars and training courses for managers and local extension workers.	Establishes local institution, providing seed capital, manager, and managerial assistance, taking on locals and using local T/A institutions, phasing out and taking new role of transferer of successful model to build new institutions elsewhere.
TECHNOSERVE (Darien, Conn., U.S.A.)	Private, non-profit, U.S. organization responds to self-help initiatives of groups with wide ownership base, local resource use, and employment, income distribution, and self-reliance goals, playing catalyst role.	El Salvador, Ghana, Kenya, Honduras.	Local expatriate staff assists in development and selection of labor-intensive technology, testing, design, and installment of processing equipment; and improvement of product design equality.	Provides experienced managers until local personnel ready. Market research and negotiates export contracts. Helps identify sources of debt equity capital, occasional credit guarantees and small temporary equity position. Prepares feasibility studies.	Training of local managers to eventually take over projects is key to organization's approach.	Strengthens local development assistance capabilities through sharing of experience and methodology in promotion of self-reliant development and related managerial training.
ITDG (London, England)	London-based organization emphasizing practical application of intermediate technology for maximum use of local resources, labor-intensive production, and local self-help; U.K. project staff and consultants provide appropriate technical information to communities as well as to integrated development plans.	Principally in Africa and subcontinent with SSE emphasis in Nigeria, Pakistan, Tanzania, India, and Guyana. Overseas project staff in Zambia, Ethiopia and Brazil.	U.K. R&D units and associated industries and technical colleges develop small-scale, labor-intensive industrial equipment and techniques and new product designs according to overseas requests. Field project officers develop and field test new products designed for local construction with local materials.	Provides some accounting, financial, and managerial advice to cooperatives and other groups.	Education of local industrial extension agents on availability and selection of appropriate technology.	Assists government and other agency programs with technical inputs, assisting in SSE planning and R&D projects, and installing technology development unit with goal of local self-reliance. Helps establish local appropriate technical centers.

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VITA (Mt. Rainier, Maryland)	U.S. Volunteer organization which provides knowledge on adapted modern technology to poor areas to meet the needs of small-scale rural industry and cooperatives.	Brazil, Dominican Republic, El Salvador, Honduras, Nicaragua, Nigeria, etc.	6000 volunteer consultants respond to specific written requests (through VITA), adapting or devising new technology to fit project needs. VITA also has own resource files.			Helps form VITA counterpart organizations which act independently, but frequently act as ultimate implementors of VITA projects.
IRRI (Los Banos, Laguna, Philippines)	Industrial R&D institute which provides innovative selective product development assistance in appropriate farm machinery to local, mainly rural industry, utilizing local materials and skills to produce commercially viable products meeting small farmer needs.	Philippines with subcontracting arrangements in other Asian nations.	Technology transfer; emphasis on product design and design release; develop and field test prototype, and link with firm for commercialization; assistance with custom fabricating; continual contact with firm re adaptations in design.	Market research and other feasibility studies. Provide firms with leaflets, instruction manuals, test results, etc. during custom fabricating stage to help promotions.	Training of engineers and field workers overseas.	Build industry through carefully tailored industrial R&D programs in public institution. Subcontract with organizations in Asia to adapt IRRI machines, encourage local production and employ IRRI-trained engineers.
EES/GEORGIA TECH (Atlanta, Georgia, U.S.A.)	U.S. university-based extension service expanding overseas operations through USAID contract; emphasis on technical advice to strengthen existing industries and create new ones with optimum use of local resources and initiative; rural focus with greater expertise in processing, wood-working and textiles.	Ecuador, Brazil, Nigeria, Kenya, Korea, Philippines, Venezuela, Honduras, Paraguay.	Work with local information center re technology transfer, adapts product and process information, improving products and reducing costs, etc. Weeks/months of on-site assistance, working closely with counterpart institution as team.	Pre-feasibility, detailed feasibility, and simple market potential studies.	For the owner/operator/entrepreneur. 13-week training program for counterpart staff at Tech; general, then specific; hopes to transfer program to field.	Identifies, assists, and works with local counterpart institutions with similar motivation (e.g. employment generation); currently six counterparts, including three universities.
TETOC (London)	British government agency under Ministry of Overseas Development concerned with technical education, management development, and industrial training; operates through U.K. - Based specialist staff and through consultants and efforts from British industry, training establishments and academic institutions.	Worldwide			Arranges UK placement for overseas trainees and training for technicians, training staffs, and supervisors; helps train industrial training instructors overseas.	Plans and develops industrial training centers and programs, and management training institutions.
STANFORD RESEARCH CENTER (Menlo Park, Cal., U.S.A.)	Private, non-profit problem-solving organization that performs basic and applied research under contract, its International Development Center does research for and offers technical services to industrial firms, government agencies, foundations and individuals; more than 20 years experience assisting SSI in developing countries.	Worldwide	For clients, SRI engages in new products, processes and equipment.	Technical assistance provided for craft industry development.	In-service training for SSI development personnel, arranges foreign training fellowships as well.	Helps establish SSI service institutes, development programs, extension training programs and industrial estates.
INSTITUTE FOR INTERNATIONAL DEVELOPMENT (IID) (Vienna, Va. U.S.A.)	Private voluntary organization which establishes indigenous businesses in LDCs with help of human and financial resources of US private sector; focuses upon small- and medium-scale job-generating projects; aids in proposal preparation and recruitment of US and national entrepreneurs/consultants; growing emphasis upon rural and food-related industries.	Honduras, Colombia, Brazil, Ghana, Sudan, Kenya, Pakistan, Indonesia, Sri Lanka; others worldwide		During project implementation, has provided financial, marketing, legal and management assistance.	Will, in conjunction with local groups, organize, staff, plan, and implement training centers for local entrepreneurs with training provided by US businessmen in selected occupations and labor-intensive businesses and general business courses given by local, experienced businessmen; program now in experimental stage.	
COMPAGNIE INTERNATIONALE DE DEVELOPPEMENT RURAL (Paris, France)	French, privately-supported organization with goal of increasing productivity and employment particularly in rural areas of LDCs, helping to establish small enterprises; also works with craftsmenship development	Mainly Africa, but also work in Peru and elsewhere.	Gathers and provides technical information necessary to solve problems of SSIs; supplies labor-intensive production techniques and index of selected suppliers.	Supervises the initiation, implementation, and direction of small industrial enterprises.		

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INSTITUTE FOR NEW ENTERPRISE DEVELOPMENT (INED) (Belmont, Mass., U.S.A.)	American, non-profit organization with established process to screen identity and assist enterprising entrepreneurs establish their own businesses; helps would-be entrepreneurs evaluate their own skills and motivation and banks identify good credit risks.	None outside US, but interest shown at 1975 International Symposium and Entrepreneurship and Economic Development.			Uses a series of 2-day week-end workshops as well as individual counselling.	
TECHNONET - ASIA (Ontario, Canada)	Cooperative grouping of 11 organizations in 9 Asian countries which assist SSIs and MSIs; emphasis upon transferring knowledge about known techniques to existing enterprises; joint effort to build up extension services for industry in SE Asia.	Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand, Bangladesh, Korea, Sri Lanka.	Has back-up services from the Technical Information Service of the National Research Council of Canada (NRC/TIS) which can provide technical inquiry and industrial extension support to SSI.		Sponsors training courses for industrial extension engineers from member Asian organizations at the Small Industry Extension Training Institute (SIET) in Hyderabad, India, accenting in-plant work; arranges training visits by member organization staff members to NRC/TIS) in Canada	Helps participating organizations establish new programs and capabilities.
ORGANIZATION FOR REHABILITATION THROUGH TRAINING (ORT) (New York/Geneva)	American private non-profit development training organization with 95 years of experience in technical education and vocational training in LDCs.	Africa, Asia and Latin America, with recent emphasis upon Africa.			Provides specialized vocational training programs to government and private sector; have nearly 1,000 training units in 25 countries; on-the-job training recently emphesized; trains counterparts at facility in Geneva; also trains them locally to design their own programs. Training of extension agent personnel.	
EAST-WEST CENTER (Hawaii, U.S.A.)						
INTERNATIONAL COOPERATIVE ALLIANCE (ICA)	An association of national cooperatives, promoting and safeguarding the interests of the cooperative movement.	Worldwide; regional offices in East and Central Africa and SE Asia.	Technical assistance from member organizations like the Cooperative League of the United States (CLUSA) to help establish cooperative industrial projects in the Third World.	Helps coordinate information exchange and technical assistance from inside and outside the cooperative movement, e.g. more advanced cooperative movements in Europe supply manpower and T/A to cooperatives in the Third World.	Advises on education and training for LDC cooperatives, helping member organizations to increase the effectiveness of their training programs.	Helps build and strengthen national cooperative movements.
INTERNATIONAL VOLUNTARY SERVICES (IVS) (Washington, D.C., U.S.A.)	Private, non-profit, technical assistance organizations providing internationally recruited development technicians on a full-time "volunteer" basis to projects directly involving the poor, particularly in rural areas, but with capabilities in engineering cooperatives, and recently in small business development.	Algeria, Bangladesh, Botswana, Ecuador, Honduras, Indonesia, Sudan, Mauritania and Papua Guinea (where most of the small business assistance is given).	Capable of providing technicians, e.g. mechanical engineers, blacksmiths, etc. to help establish small industries and supply technical supervision of production.	Business management assistance in cooperatives, simple finance, etc.	Training of trainers, as well as managers and vocational skills. Objective is for "volunteers" to phase themselves out of jobs through sharing expertise with co-workers.	
INTERNATIONAL MANAGEMENT DEVELOPMENT INSTITUTE (IMDI) (New York, U.S.A.)	U.S. non-profit corporation conducting national and regional-level training with goal of enhancing management skills in developing countries in order to eliminate their dependence on overseas training; principally-financed through training program contracts and participant fees.	Training programs in 16 African countries since operations began in 1970.			Conducts seminars and practical management training for government officials, private businessmen, and small business owners/managers; also trains trainers/managers responsible for manpower development.	Strengthen government institutions through management training.
JAPAN CONSULTING INSTITUTE (JCI) (Tokyo, Japan)	Japanese institute with technical, industry-specific expertise for SSE development, transferred through published booklets and surveys and reports prepared for government agencies and industrial groups in developing countries.	In past three years has responded to 26 requests from 14 countries in Africa, Asia and Latin America, including 3 or more from Nigeria, Indonesia and Malaysia.	Provides (small-scale) industry-specific feasibility studies upon request as well as 100-plus excellent SSI profiles covering materials use, plant and manufacturing cost, product design, production processes, labor and power requirements, etc.			

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ASIAN PRODUCTIVITY ORGANIZATION (APO) (Tokyo, Japan)	Inter-governmental regional organization composed of 13 Asian which aims to increase productivity in industry (and other sectors) particularly at the enterprise level through assistance in management and technology areas with emphasis upon manpower development.	Member countries: Hong Kong, India, Indonesia, Iran, Japan, S. Korea, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, and Taiwan.	Technical experts visit member countries to conduct seminars and provide some consultancy services to SSEs.	Similar expert services provided in marketing finance, management and other areas, includes advice on sub-contracting.	Courses conducted on multi-country seminar and in-plant practice bases emphasizing the training of trainers for multiplier effect; develops trainers/consultants providing advisory services to SSEs and production engineers as well as trains officials of institutions assisting SSEs; also continues SSE managerial training and has study missions and fellowships for individual entrepreneurs and consultants to study SSE systems in other member countries.	Assistance to national productivity organizations in building up corps of professional trainers-cum-consultants and developing own technical centers through training and technical assistance, as well as through regional surveys of SSE needs, related symposia, and the formulation of project proposals to fill these needs and develop new SSEs.
FEDERAL BUSINESS DEVELOPMENT BANK (FBDB) (Montreal, Canada)	Canadian Crown Corporation, recently succeeding the Industrial Development Bank, which provides financial and management services to Canadian businesses and training to development banking institutions in developing countries upon request from CIDA and international agencies.	Recent in-country training in Iran, Nigeria, Ghana, Tanzania, Antigua, and St. Lucia, has trained officers from 50 countries.		Publishes and distributes "Minding Your Own Business" pamphlets written in non-technical language--covering 14 managerial topics, including working capital, cash management, etc.--and designed for SSE entrepreneurs.	Provides staff for short-term training courses for officials of development banking institutions in LDCs, conducted principally in Canada with occasional in-country assignments.	
ASSOCIATION POUR LA VENTE ET L'ACHAT DE PRODUITS DU TIERS MONDE (A.V.A.P.) (Brussels, Belgium)	Small, Belgium non-profit organization established in 1972 to provide a central importation and marketing office for (primarily artisan) goods of SSEs and cooperatives in the Third World.		Some assistance re product choice (designs), packaging, etc.; receives samples from prospective sellers.	Principally marketing; eliminates intermediaries, pays artisans 5.7 times the normal price and sells at comparable international market price; also advises on some banking and commercial techniques, etc., and extends some credit.		
INTERNATIONAL ASSOCIATION OF CRAFTS AND SMALL AND MEDIUM-SIZED ENTERPRISES (IACME) (Geneva, Switzerland)	International federation representing the interests of craftsmen and small- and medium-sized industrial, commercial, and service enterprises, and composed of 22 national organizations which must be members of one or more of the 3 component international federations (including the International Federation of Small- and Medium-Sized Industrial Enterprises (IFSMI).	Directly groups associations in 22 countries, including in the Third World; Colombia, India, Turkey, and Venezuela and 23 other nations through intermediary associations.		Federations (particularly IFSMI) operate to link enterprises in developed and developing countries through DC enterprise decentralization in LDCs, assistance in selling products of these SSEs in the markets of DCs, and through other forms of sub-contracting.		Federation missions and teams can help national agencies with SSE and MSE programs, particularly with international commercial aspects.
INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC) (Ottawa, Canada)	The International Development Research Centre is a public corporation established by Act of the Canadian Parliament "to initiate, encourage, support and conduct research into the problems of the developing regions of the world and into the means for applying and adapting scientific, technical and other knowledge to the economic and social advancement of those regions, and, in carrying out those objects, (a) to enlist the talents of natural and social scientists and technologists of Canada and other countries; (b) to assist the developing regions to build up the research capabilities, the innovative skills and the institutions required to solve their problems; (c) to encourage generally the co-ordination of international development research; and (d) to foster co-operation in research on development problems between the developed and developing regions for their mutual benefit."	World-wide. Regional offices in Singapore, Bogota, and Dakar.	Research on improving food production, e.g., triticale as a cereal crop, sorghum, millet, root crop cassava, aquaculture. Population dynamics and population policies. Importing foreign technologies for energy production and conservation. Machines for Arabic script. African river blindness. Marketing by hawkers and vendors in Asian cities. Technonet Asia (described above). Information Services, including Asian Geotechnical Engineering Centre, Cassava Information Centre, Irrigation Technology Information Centre, Asia Packaging Information Centre, African Cartographic Information Centre. Science and technology policies especially transfer of technology.	Especially Technonet Asia. Rural health delivery in Colombia, Venezuela.	Intensive training in post-harvest technologies of rice in Southeast Asia. Training program for Latin America specialists concerned with the establishment of new industrial extension services. Management and administration of research in developing countries. Seminars, training grants, and scholarly exchanges among Asian scientists.	Assistance to government and other agency programs too numerous to mention.

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INSTITUTE FOR DEVELOPMENT RESEARCH (IDR) (Copenhagen, Denmark)	The Institute for Development Research is a governmental institution established in 1969. The object of the Institute is to undertake, to promote, and to publish research on important problems regarding the economic and social development of the developing countries, including preliminary investigations and an evaluation of development assistance activities, especially with a view to the assistance financed by the Government of Denmark. The Institute has been engaged in studies on rural change, small-scale industrial development, regional planning and Danish investments in the developing countries.	Mainly Africa and India	Research studies already described.	Using the experience of the Rural Industrial Development Program in Kenya to plan the new organization intended to support the development of small-scale rural businesses.	Seminars on research findings.	Integrated Rural Development Plan for West Lake Region, Tanzania. Ministry of Finance and Planning, Kenya. Regional planning in Karnataka State, India.
FUND FOR RESEARCH AND INVESTMENT FOR THE DEVELOPMENT OF AFRICA (FRIDA) (London, U.K.) (Paris, France) (Geneva, Switzerland)	FRIDA, a private international non-profit organization created in 1976 and registered as a Charity in the U.K. has an initial endowment of US$6 million. Its objective is to relieve urban poverty, create productive employment, promote local entrepreneurship and upgrade traditional skills by assisting all developing countries, but particularly the smallest and poorest countries in Africa, in the implementation of handicraft and industrial projects with a high labor component. FRIDA's aim is to (a) upgrade handicrafts by managing national handicraft organizations, organizing artisans, encouraging the production of high quality handicrafts, and providing working capital and marketing services; (b) promote the development of labor-intensive export-oriented industries in Africa to export to developed countries and particularly to the U.S. and the EEC by providing an integrated approach including project identification and preparation, financial assistance, management help and export-marketing assistance. FRIDA has merged with the Societe d'Etudes et de Developpement Industriel (SEDI) based in Geneva which for the past five years has researched the suitability of the various labor intensive sub-sectors to be implemented in specific developing countries for exports to the EEC and undertaken a campaign with EEC entrepreneurs to invest in Africa.	Mainly Africa, but also countries in other continents with a population of less than 10 million and per-capita income lower than $300. Three field offices in Africa being established.	FRIDA's technical assistance department will (a) provide consultancy services and management for the development of handicrafts; (b) in association with the SEDI undertake project identification missions, assign staff for specific tasks to Governments and local institutions on demand and provide, when necessary, management of the projects it has identified and prepared. FRIDA also has a culture and tourism promotion which studies effective ways to promote financially viable cultural activities such as the development of national ballet groups, and explores the possibilities to increase tourist spending and foreign exchange revenues for the countries assisted, including, making available to tourists higher quality handicrafts.	The project financing department appraises and follows up loans for small handicraft and industrial export-oriented projects made jointly with local development banks. FRIDA's export promotion department identifies products needing improvements or increased production for marketability. Its commercial organization to sell products will include (a) purchasing agents in developing countries to assist exporters (b) Project Hand, a marketing company operating since 1972 to assist wholesale and retail trading in U.K. (c) a central marketing group in EEC countries (d) an existing importer/wholesaler in the U.S. (e) commercial subsidiaries in other countries.	FRIDA will organize course in business administration and provide scholarships to local students for industrial training programs in foreign countries.	FRIDA will have a network of field offices who will build up the local development banks' capabilities to promote and appraise export projects. In addition FRIDA will manage national or local handicraft organizations and train nationals in reorganizing and upgrading the production of artisans.

AGENCY

Note: The following agencies we believe to be active in promoting appropriate technology, and we are seeking information on their activities.

BRACE RESEARCH INSTITUTE (BRI)
(Canada)

GROUPE DE RECHERCHES SUR LES TECHNOLOGIES APPROPRIEES (GRET)
(France)

CENTRO DE ESTUDIOS MESO AMERICANOS PARA LA TECHNOLOGIA APPROPRIADA (CEMAT)
(Guatemala)

CENTRO DE ESTUDIOS ECONOMICOS Y SOCIALES PARA EL TERCER MUNDO (CEESTM)
(Mexico) ?

TECHNISCHE ONTWIKKELING ONTWIKKELINGS LANDEN (TOOL)
(Netherlands)

CENTRE DE RECHERCHE DU GENIE RURAL (CRGR)
(Tunisia)

ARBEITSGEMEINSCHAFT UMWELT (AGU)
(Switzerland)

SCHWEIZERISCHE VEREINIGUNG FUR MITTLERE TECHNOLOGIE (SVMT)
(Switzerland)

SCHWEIZERISCHE ARBEITSGEMEIN SCHAFT FUR ALTERNATIVE TECHNOLOGIE (SAGAT)
(Switzerland)

EXPERIMENTAL SSE PROJECTS UNDER CONSIDERATION

1. Upper Volta. An integrated SSE project is likely to materialize in Upper Volta which would aim at making institutional credit available to the widest possible range of firms, including small housing, road equipment and other civil works contractors, agricultural artisans (operating singly or in cooperatives), quarries, well makers and small service businesses catering to local urban markets.

The project will seek to design and implement a fully coordinated mechanism to deliver credit and technical assistance (business, management and engineering advice) to small entrepreneurs and will be coordinated within the Bank to mesh with highway and urban development projects in the lending program. For example, the DFC operation will include a credit and assistance component which will directly support a highway project and which will be specifically allocated to Voltaic civil works contractors, who are in a position to subcontract such work as feeder roads and culverts. Another portion of the loan would be available for housing credit as well as credit and assistance for businessmen located in urban redevelopment sites.

2. Philippines. The rural credit project of 1974 initiated financing three types of small agro-industries. Based on the experience gained, and need to assist small rural entreprepreneurs, the coming project of 1977 is envisaged to include, as a major component, financing of both small subborrowers engaged in cottage industries as well as larger-scale agro-industries on a much larger scale than in 1974 ($0.3 million in 1974 and $5.2 million in 1977).

Technical assistance would be provided largely by the industrial specialists employed by the Central Bank, and MASICAP. Other sources available at the local level may also be included. Project funds would be channeled through private rural banks and private savings and loan associations by the Central Bank. A particular area of investigation would concern ways to minimize lending costs and risk associated with hundreds of small loans, especially by organizing a network of technical assistance usable by small credit institutions and small subborrowers, as well as by training credit officers to improve their appraisal capability.

3. Egypt. Through its 80 branches the Bank of Alexandria (BOA) has been carrying out an experimental program to assist small businessmen and artisans with loans varying from $250 to 5,000. During the last three years an average 2,000 small enterprises have been assisted annually. In addition, other small borrowers have received financing from BOA through hire-purchase schemes. BOA sees these programs as efforts to help poor families to escape poverty by providing them with small amounts of capital they need to help themselves, and has instituted liberal lending criteria and security requirements. So far, this policy seems to have worked, but small firms are frequently squeezed by large firms which buy their output in bulk at low prices while supplying them with raw materials at elevated prices.

Given that most of BOA's activities have been concentrated in the Cairo area, there is an opportunity for the Bank to help BOA in its efforts to make credit available in the regions. Even though mostly local currency financing would be involved, there is a shortage of credit for small businesses and the Bank has been invited to help. Innovative project components could include joint

facility cooperatives for both purchasing and marketing, (also for exports), hire purchase arrangements for small agro-businesses and sub-contracting schemes between BOA's larger borrowers and small enterprises.

4. Colombia. An SSE experiment is under consideration to develop an initial integrated project in an urban center with substantial unemployment problems (e.g. Barranquilla). Target enterprises would encompass a wide range of manufacturing and service subsectors including small artisan shops, retail and commercial outlets providing goods and services to urban consumers, tourism and transport services, low-cost housing, and small construction firms. A project management unit would be established to quantify the size and nature of the employment gap based on present programs and trends; identify unsatisfied demands for goods and services and opportunities to stimulate increased demands; and facilitate the supply of these demands by new or existing labor intensive enterprises through the development and implementation of an integrated system for delivering financial, technical, marketing and training assistance.

On the basis of experience gained with this initial project, it is planned to develop an analytical, operational and organizational model for mounting integrated programs to generate productive employment opportunities. The model would then provide the foundation for a broader program that would be extended successively to cover other major urban areas in Colombia and elsewhere.

5. India. A Bank mission visited India in April-May 1976 to survey several sub-sectors, SSE or informal production, leather, sericulture, handlooms, village industries, carpets and light engineering. The mission recommended a variety of measures -- including better raw material supply, technical assistance for improving designs and help in obtaining finance and access to wider marketing channels -- whereby the Bank might help to upgrade SSE operations in these sub-sectors. Extensive discussion of the mission's report within the Bank led to a consensus that investigation of possible Bank assistance in these areas should be pursued along the lines suggested, giving priority to the preparation of projects for leather and small scale textile development.

It was recognized that an important feature in the design of such SSE projects could be the involvement of cooperatives as intermediaries for channeling technical assistance and credits.

The report of the mission is now being prepared in final form for transmission to the Indian Government, and it is hoped that follow-up steps during 1977 will lead to innovative project designs which may also be suitable for some other countries.

6. Mexico. Financing institutions in Mexico have requested Bank assistance for chaneling more credits and other forms of help to small and medium industries in that country. A mission visited Mexico during October 1976 to survey the whole small and medium scale sector and analyze the operations of the existing institutions, with a view to preparing a project for Bank consideration. The project will propose a comprehensive framework for expanding financial credits for the smaller industries linked to a program of technical assistance.

7. Indonesia. An appraisal report is in draft on a proposed loan of US$20 million to assist Small Business Development in Indonesia, by strengthening the capability of the banking system to administer programs of financial assistance to small business, and improving cooperation and liaison with the Department of Industry and other technical services groups. The initial phase would be limited to East and Central Java and West Sumatra.

The target sectors would include manufacturing; services such as repair shops, transport and tailoring; construction; and wholesale and retail trade. The modern SSI sector would receive more attention than in past programs. Total financing for the project is estimated at US$218.4 million equivalent. US$6.4 million of the Bank loan would finance 100% of the foreign exchange cost of technical assistance and training. The project is to be managed by Bank Indonesia (Central Bank).

The total project subloans over a 4-year period would finance an estimated 35,000 fixed assets and working capital projects with an average size of $8,000. About 93,000 additional jobs should be created, at an average cost per job estimated at $3,000.

SELECTED BANK-ASSISTED SMALL/MEDIUM ENTERPRISE PROJECTS

(Summaries)

Industrial Projects Department

Pakistan

The IDA credit to Pakistan in 1962 for $6.5 million represents the Bank Group's earliest explicit attempt to stimulate SSE investment. The project includes the purchase and development of two estate sites as well as support for industrial consultants to assist in managing the estates and appraising estate located investments. Continuing technical assistance to firms after appraisal is provided as part of an ongoing government program, coordinated through the estates. The objective of the project as described in the appraisal report was one of modernizing existing firms to increase productivity and output. Entrepreneurs themselves were to pay for factory sites and machinery but were given long term credit to do so, as well as advice on obtaining credit for working capital needs. The project encountered significant disbursement delays, and the one industrial estate located relatively further away from the urban center suffered from a lack of viable investments and was far from successful. Nevertheless, it was demonstrated that small industries could be assisted if credit arrangements are relatively straightforward, investment appraisal techniques sound and industrial estates are set up near natural markets.

Pakistan/Bangladesh

Before the separation of Pakistan's Eastern Wing and the formation of Bangladesh, IDA had approved a $3 million credit to the East Pakistan Small Industries Corporation (EPSIC), a government agency established to set up and manage industrial estates, provide and coordinate technical assistance to borrowers and arrange for (and provide in a limited way on its own) finance. The IDA credit, although including assistance for industrial estate management, was fundamentally a credit project designed to meet the foreign exchange needs of entrepreneurs. At the time of the war, the credit was two thirds committed but only a small amount had been disbursed. After the war the project was reactivated (December, 1972), although the effects of organizational changes effecting the delivery of technical assistance to subborrowers and in the commercial banking sector were not entirely clear. In the reactivated credit technical assistance to the borrower was largely eliminated. Under the original scheme the central bank rediscounted 75% of loans made by commercial bank under the program. In the case of default the commercial banks and EPSIC shared equally the risk. This plan was retained under the reactivated credit, although the commercial banks had been nationalized and consolidated.

Yemen

The objective of IDA's industrial estate project in the Yemen Arab Republic, which was assisted by a $2.3 million credit in FY1975, was primarily to demonstrate modern industrial techniques to small businessmen and craftsmen. In addition to the physical development of an industrial estate and the

necessary institutional arrangements associated with it, the credit provides for technical assistance to the estate authority and sub-borrowers as well as long-term credit through the majority government owned Yemen Bank for Reconstruction and Development (YBRD). In addition to the normal public utilities provided in industrial estates, a common repair facility is to be provided. Long-term credits from the government controlled development bank (previously unavailable in Yemen) would be available only to entrepreneurs with projects approved by the estate authority.

Indonesia

An industrial estate being constructed on the outskirts of Jakarta received support in the form of a $16.5 million IDA credit in FY1974. The project is a standard industrial estate operation designed to reduce costs of services to industrial firms and the speed the implementation of investment projects. Most of the firms expected to locate on the estate are large joint ventures. The small scale enterprise component of the project, although small in itself, takes account of the fact that SSEs require help as part of a broad program providing standard factory buildings, credit, and technical and management assistance. Although the project does not include a credit component specifically for SSE (or other firms for that matter) an estate located office is established to assist firms in negotiating credit from existing sources, as well as providing help in production techniques, market surveys, etc.

Nigeria

The Bank has provided technical assistance, which will continue, (although no loan is contemplated) in support of an overall SSE "sector" development policy formulated by the Government to be carried out over five years. The total funds are Nigerian, a total cost of $US165 million including a credit component of $US80 million. The scheme is interdisciplinary in design, building on NDP experience with industrial estates, but including important training and credit components. Coordination of the project's technical assistance components (to subborrowers and estates) and the credit portion will be undertaken by a strengthened Small Industries Division of the Federal Ministry of Industries. The project, which is innovative in both its geographic and institutional scope, should have a significant impact on SSE's growth of performance. Immediate objectives are institutional (training institutes, financial intermediaries and industrial estates) in support of the longer range objectives of industrial dispersion, job creation and localized industrial development.

Other

Four other NDP projects have had an impact on small enterprises, although for different reasons each has certain atypical aspects. The Mauritian industrial estate project, for example, supports small and medium-sized exporting firms in the modern sector. Although certainly in tune with Mauritian needs, the situation is not a typical one, there being few countries with excess cheap skilled labor, situated on major trading routes. Similarly, the industrial estate component of a Nicaragua project meets a different type of need and focuses on rehabilitation of preexisting firms. Tanzania's industrial estate project has a very small component for small firms (10%).

Development Finance Companies

India

The SSE project in India was the first of its type done by a DFC division (December 1972). It is conventional in its primary concentration on institution-building goals but unconventional in that it involved 18 state-level institutions, thus aiming Bank assistance at regions and a size-class of enterprises that have previously not been touched by this Bank's industrial assistance. The fundamental objective of the project (and in a repeat project in FY76) was therefore to meet quickly and efficiently the financial needs of small and medium enterprises. Reflecting this objective, and because of the federal nature of India, the project relies on a two-tier, or "apex", approach for making credit available. The Industrial Development Bank of India (IDBI), a fully owned subsidiary of the Central Bank received a $25 million IDA credit for on-lending to 18 State Financial Corporations (SFCs). This approach enabled the Bank to address the institution building needs of the SFCs, which are critical to effective credit support for SSEs, through IDBI, which deals with them on a regular basis through a refinancing/ rediscounting mechanism and supervision. 75% of the country-wide operations of SFCs is for small-scale industry, but they are only marginally involved in mobilizing business and engineering assistance for small Indian entrepreneurs. In view of the formidable institution-building task of the Bank, and in view of the fact that technical assistance to SSE is available from a wide variety of sources, the Bank concentrated on financial delivery to ease the traditional problems small entrepreneurs had faced with untimely provision of credit. At this juncture, however, the specific technical needs of SSE are being reviewed and future SSE operations in India foresee a close integration of credit and technical assistance.

Cameroon

The SSE project in Cameroon ($3 million IDA credit in 1975) relies on a majority government-owned DFC as the credit intermediary. However, both the Government and the Bank recognize that reaching SSEs successfully requires more than financial and operational support for the DFC, and in fact, the original request of the Government for Bank help was not for credit but for help in providing technical assistance to subborrowers. More than in India, the bottleneck is not lack of financial resources, but also management and business failings. As a result, delivery of technical assistance to Cameroonian subborrowers as well as to the financial intermediary was seen as critical by both the Bank and local authorities. Operating on the assumption that assistance to subborrowers should not be supplied by the financial intermediary itself, but by one or more of the three existing organisms, the Bank sought to coordinate the grabbag of programs offered by these groups. Furthermore, two other project components are worth highlighting. First, the government for its part is firmly committed to support SSE, seeing such support as an important part of its overall industrial sector policy. In line with this commitment, the government has rationalized the system of incentives for small businessmen, and made an attempt to speed decision-making on application for these incentives. Second, in recognition of the risk involved in promotional work with SSE, a fund guaranteeing up to 80% of loans to SSE firms by the DFC and local commercial banks was established on the basis of central government support and a levy on the profits of commercial banks.

Philippines

The Philippines SSE operation ($30 million in FY1975) is probably the most complex such DFC operation to date. The loan was made in response to a direct government request to improve, for small entrepreneurs, access to institutional credit and technical assistance to solve day-to-day operating problems. Because a wide variety of Philippine institutions exist to provide credit and assistance to SSE and because of a need to have a broadly-based geographic impact, the project has four quite distinct components. Included are (i) a $15 million component for on-lending to SSE by DBP, a wholly owned government DFC; (ii) $12 million for a fund guaranteeing up to 80% of loans made by commercial and private development banks; (iii) $2.3 million for on-lending to rural industrial cooperatives through the rural electrifications authority; and (iv) $700,000 of direct Bank support for regional technical assistance centers. National coordination of all assistance to small entrepreneurs in the Philippines is carried out by the Commission on Small and Medium Industries in the Department of Industry. Most important financial intermediaries (including two supported by the Bank) are represented on this commission, and field operations are carried out by fifty action teams and at seven Small Business Assistance Centers. These latter centers are supported through the technical assistance financed by the Bank.

Ivory Coast

The request of the government of the Ivory Coast for a small enterprise project stemmed from the government's desire to upgrade the operations of the local technical assistance agency, Office de Promotion de l'Enterprise Ivoirienne (OPEI). In addition to strengthening this organization and its capabilities the project provides financial assistance ($5.6 million in 1975) to a local financial intermediary, Credit de la Côte d'Ivoire (CCI), for on-lending to SSE. The central concept of the project is to develop "model"or prototype projects in specific subsectors--baking, garages, woodworking--which can be used for repetitive operations, thus reducing risk of failure and administrative overhead. The IBRD funds are designed to finance the foreign exchange costs of projects, while local commercial banks meet the working capital requirements. Estimated financial and economic rates of return for the firm to be assisted in the project (largely bakeries, woodworking operations and garages) range between 25% and 33%. Approximate allocations of the cost of technical assistance to individual subprojects reduce these rates of returns significantly, although they still remain above 12%. Similarly, adjusting for the cost of assistance raises the average cost per job generated from $5,700 to $8,700.

Colombia

The $5.5 million Bank loan (1974) in Colombia has as its central objective alleviating the twin constraints for SSEs of insufficient access to credit and the need for technical assistance. Project components include $5 million for on-lending to small firms to meet the foreign exchange cost associated with investment and $500,000 to finance technical assistance to the government-owned financial intermediary (CFP) and to subborrowers. In connection with its normal credit operations CFP agreed to increase its technical assistance efforts to help its clients. In addition, since many potential clients require extensive help (especially technical and management advice), Bank funds are also available for technical assistance credits to entrepreneurs, usually for the services of Colombian consultants, including universities, private consultants, and government-supported groups.

Korea

IBRD's $30 million loan (1974) to Korea's Medium Industry Bank (MIB) covers mainly modern, medium-sized firms, but is also expected to have a significant impact on smaller companies as well. The relatively well modernized SSE subsector in Korea represents an important part of the full industrial sector and has received extensive and well conceived government support. MIB, which is fully government owned, is the financial intermediary designed specifically to meet the needs of the smaller to medium sized firms. As a well-run and sound organization it has developed, along with the government's program of assistance and incentives, an in-house technical assistance capability which provides help in solving operating and management problems, training courses, publications and some help in preparing feasibility studies.

International Finance Corporation

IFC's first small/medium enterprise project ($2 million in FY77), prepared by its Capital Markets Department for Kenya, relies on the existing commercial banking system of Kenya to provide both credit and basic managerial advice to small and medium entrepreneurs. The objective of this first project in Kenya is to provide a package of needed inputs to small entrepreneurs, while at the same time developing an approach which is applicable in other countries.

Commercial banks are already involved in the small-scale sector, providing working capital loans. Geographic spread is wide, with continuous contact with consumers. IFC wanted to use a set of flexible institutions already in place, but separate from the Government. To meet the needs of small businessmen in Kenya, IFC anticipates lending to them directly roughly 70% of the loan amount needed. The commercial banking partner will both administer the IFC loan and lend the residual 30%. (Loans will cover both fixed asset investment and working capital). Non-financial assistance to the borrower will be provided by the commercial institution on a self-liquidating basis and is pitched at a fundamental level (basic book-keeping, marketing and planning). Engineering and technology assistance to small/medium enterprises is not included in the project.

Urban Projects

Project components to promote small business development are being included wherever feasible in recent urban projects. These are generally pilot efforts in this field and consequently the lending amounts are comparatively small, ranging from $0.5 to $2.4 million.

Although there is considerable variation among project designs to suit local conditions, institutions and practices , the following three basic ingredients are generally incorporated:

(a) provision of space for workshops and markets;

(b) credit mechanisms for purchase of tools and equipment, shop construction or expansion and working capital; and

(c) technical assistance and training in fundamental business management and operations and technical skills.

The following are brief descriptions of projects by region:

East Africa

The FY77 Second Tanzania Urban Project emphasizes improving the capacity of existing small business and artisans in selected enterprises in project towns by providing workshop space, small loans for equipment and working capital, and training and assistance in basic bookkeeping, marketing, etc. A second project just appraised in Zambia (FY77) includes similar features.

West Africa

The $44 million Urban Development Project loan (FY77) to the Ivory Coast includes support for small scale, informal sector activities by setting aside specific areas within the project sites. The Caisse Centrale pour la Cooperation Economique is reviewing a parallel technical assistance and credit line activity to support entrepreneurs who would buy plots in the site and services areas. The Upper Volta project (FY78) has a similar credit/technical assistance component administered by the Development Bank and destined to individuals in project upgrading areas.

East Asia and Pacific

A Bank loan (FY76) in the amount of US$.33 million was provided to the Government of the Philippines for the purpose of assisting very small businesses and cottage industries found in the Tondo and Dagat-Dagatan areas of Manila. This is an experimental effort that includes both technical/ managerial services and credit facilities. The package is primarily designed to fill a gap in financing for small businesses whose assets are less than US$20,000. While funds for small businesses are nominally available, banks have tended to channel funds to larger, more secure investments.

A line of credit will be provided to the National Housing Authority which will enter into an agreement with commercial banks for administering the loan for subprojects involving general manufacture of furniture, household implements and simple tools; woodcraft and shellcraft; machine shops and repair shops and others. This project will provide 60% of the loan amount needed with the remainder lent by the commercial banks involved. The technical services will be provided by the Department of Industry for project preparation and review, professional assistance, training, processing of loans, and advice during implementation and supervision. Managerial assistance will be offered under the auspices of NHA including special courses in business management, elementary accounting and record keeping.

South Asia

An IDA Credit (FY77) of US$2.4 million will be provided to the Government of India for Madras, of which US$1.6 million will finance work sheds and machinery loans for small industries and US$.8 million will finance training, equipment and sheds for cottage industries for areas in the sites and services

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

POLICY REVIEW COMMITTEE

PRC/s/M/76-6a

April 28, 1976

ISSUES PAPER: EMPLOYMENT CREATION, SMALL ENTERPRISE DEVELOPMENT, AND THE ROLE OF INTERMEDIARIES

STAFF REVIEW - MINUTES

Attendance:

Messrs. van der Tak (Chairman), Ahmed Z., Bahl, Brown, J.G., Chanmugam, Chopra, El Darwish, Fostvedt, Glaessner, Gordon, D.L., Gulhati, Gustafson, Haq, Hidalgo, D., Hindle, Jaycox, Kalmanoff, Karaosmanoglu, Knotter, Kuczynski, Laursen, Leiserson, Pilvin, Pollan, Powell, R.L., Steinberg, R., Webb, R., Weiss, C., Westphal, Burki (Secretary)

1. A staff review of the issues paper was held on Monday, April 19, 1976.

2. The discussion focused on the following topics: impact on employment of small enterprise development, role of intermediaries, interest and other charges, and working conditions in small enterprises.

Employment Impact of Small Enterprise Development

3. It was suggested that comparatively little is known about the employment advantages of small firms over large firms, particularly in an economic environment of improved policies to remove distortions of factor prices. It was agreed that the general rationale for supporting small enterprise development, in terms of their purported employment advantage, could be set out much more briefly in the issues paper, since a fuller DPS analysis of urban employment and poverty will be forthcoming shortly. The justification of shifting the emphasis of the Bank's industrial lending toward small enterprises for reasons of employment creation was not, however, questioned.

Role of Intermediaries

4. It was agreed that a clearer distinction ought to be drawn (in Section IV and the subsequent sections)between modern small scale industries and the informal sector, as regards the kind and role of intermediaries and the forms of credit and technical assistance appropriate to their respective needs. It was noted that financial intermediaries will have some in-house capability to provide technical assistance of a general character, but outside help would have to be sought for more complex problems, preponderantly those of the modern enterprises;

intermediaries might usefully coordinate and sponsor the provision of such assistance. In this connection, questions were raised about the proposed technology referral service; the importance of avoiding duplication or undercutting of the work of UNIDO and other institutions mounting similar efforts was stressed.

Interest and Other Charges

5. The question whether small enterprises should pay for technical assistance provided to them was also discussed. It was suggested that costs of advice of a general, superficial nature would be absorbed by the financial intermediary or otherwise provided gratis (this would apply to all informal sector activity), but more specialized, elaborate advisory services would be charged to sub-projects. It was agreed that the means of doing so ought to be spelled out.

6. With regard to on-lending rates there was general agreement that a subsidized interest rate to small enterprises, which customarily obtain finance at extortionate curb rates, is not justified; indeed interest subsidization might encourage adoption of more capital-intensive technologies. On the other hand, it was argued that the most important need of small enterprises, especially in the informal sector, is working capital, and low interest rates for this purpose would not affect labor intensity. It was contended also that to apply to small enterprises an interest rate that reflected the full costs of loan administration and risk would be politically unfeasible if large firms were charged much lower rates; it would also be inconsistent with the objective of small enterprise development.

7. There was agreement that the general level of interest rates in most developing countries is too low. The view was expressed that the interest rates charged both large and small industries might be set at the same (generally higher) level while the extra costs of financing small enterprises could be met in other ways. The revised paper should spell out alternatives.

Working Conditions

8. The paper noted that in small enterprises working conditions are often unhealthy and wages very low. It was agreed that the Bank could not interfere to correct such conditions, but that intermediaries might be able to suggest improvements in working conditions that would not unduly burden the sub-borrower.

PRC Review

9. It was concluded that the paper to be submitted for PRC review be shortened and include a self-contained summary and conclusions. The important overall issues and recommendations should be sorted out from less important

questions, and suggestions regarding the Bank's lending program should be held in general terms without indicating specific target figures.

Shahid Javed Burki
Secretary
Policy Review Committee

cc: Those Attending

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noted

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

POLICY REVIEW COMMITTEE

PRC/s/M/76-6

April 8, 1976

EMPLOYMENT CREATION, SMALL ENTERPRISE DEVELOPMENT, AND THE ROLE OF INTERMEDIARIES

STAFF REVIEW

Attached please find the issues paper "Employment Creation, Small Enterprise Development, and the Role of Intermediaries" prepared by the Development Finance Companies Department.

A staff review will be held on April 19, 1976, at 10:30 a.m. in Conference Room D-556.

Please inform this office if you cannot attend.

Shahid Javed Burki
Secretary
Policy Review Committee

DISTRIBUTION

Attendance

Messrs. van der Tak (Chairman)
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ISSUES PAPER

EMPLOYMENT CREATION
SMALL ENTERPRISE DEVELOPMENT
AND THE ROLE OF INTERMEDIARIES

March 30, 1976

Development Finance Companies Department

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ISSUES PAPER

EMPLOYMENT CREATION, SMALL ENTERPRISE DEVELOPMENT, AND THE ROLE OF INTERMEDIARIES

Summary

(i) This paper attempts to outline avenues, for the Bank and for financial intermediaries in developing countries, to involve poor people in urban and rural areas in the productive growth process of their economies. The benefits of growth, and of Bank financing, have hitherto been divided very unevenly, mostly accruing to the higher income groups in those countries. There is an urgent need to improve the lot of the urban (and non-farm rural) poor through creation of greater opportunities for productive, remunerative employment and through support of enterprises which involve them more directly as beneficiaries, owners and promoters.

(ii) The Bank has limited experience in this area, and the paper limits itself to suggesting avenues for exploration, some possibilities for immediate action and an agenda for further intensive study. What follows is thus a hybrid combining various aspects of an issues paper, an action program, and an agenda for further investigation. Its multi-pronged approach emphasizes (i) increased support for small scale enterprise (SSE)1/ development; (ii) programs assisting the poor more directly, particularly in the informal sector; (iii) focus on production processes and product designs that utilize technologies appropriate to the resource endowments of specific countries -- meaning less capital intensity in most cases; and (iv) assistance to existing development finance companies (DFCs) and promotion of other intermediaries which subscribe to these objectives and have a capability to implement them.

The Case for Assisting Small Enterprises

(iii) There can be a symbiotic relationship between large and small organizations in the process of development, through subcontracting relationships and complementarity with different sized firms tapping different skills and markets, to their mutual benefit. But development initiatives, national and international, have tended to neglect the smaller end of the industrial scale in favor of the larger; the former, indeed, typically faces serious technical, financial and bureaucratic handicaps.

1/ This paper accepts, as a working definition of SSE, all (non-farm) enterprises classified or regarded as "small" in their countries, subject to an upper limit of $250,000 for fixed assets, excluding land. (In practice, well over three-fourths of "small" enterprises have fixed assets below $100,000 and employment below 50.) No lower limit is set; the SSE definition also encompasses one-man shops, family businesses, cottage and handicraft industries, etc.

(iv) In virtually all developing countries, however, SSE account for at least 90% of total manufacturing and service sector establishments and about half of corresponding total employment; and have still greater employment creation potential. Comparative data for small and medium/large firms suggest that the former show significantly (about three times) greater direct employment generation effects (the ratio between fixed assets and direct jobs generated) than the larger firms. Furthermore, there is evidence that small firms generate, as a whole, a relatively greater share (about two-thirds, as against one-half for larger firms) of job opportunities for unskilled people. Little precise data is available on the relative effectiveness of small and larger firms in generating indirect employment. However, there is some evidence that the total employment effect of SSE is greater: larger firms have, as a whole, a higher import propensity (both for capital goods and raw materials), so that small firms tend to generate relatively more jobs at home. The greater potential (and frequently real) substitution-propensity of large enterprises (i.e. to drive smaller firms,with their greater number of employees, out of business) is another indication.

(v) Use of labor-intensive techniques in large enterprises often poses special difficulties--labor union pressures, government regulations, etc.-- which weigh much less heavily on SSE; it is partly for this reason that large firms move toward capital intensity. Put another way, at a given stage of development a country will possess a finite capacity for organizing manpower on a large scale --i.e., there is a pool of potential entrepreneurs and employers who, for a variety of local reasons, can be more effectively employed in small teams than in large groups.

(vi) Together, these considerations argue powerfully for greater emphasis on SSE development. Other well-known arguments, difficult to quantify, are that SSE development tends to promote entrepreneurial development, reinforce community stability, reduce inter-personal and inter-regional income inequalities, increase returns to rural labor through improved marketing and other services, reduce migration to metropolitan areas, increase savings and investment motivation, etc.

Bank Lending for SSE

(vii) Historical Overview. The Bank's assistance to SSE has only recently (essentially since FY73) gathered momentum. Altogether, in 16 countries the Bank has supported projects with a significant SSE impact, but the cumulative SSE share (about $120 million) of these projects constitutes only 2.3% of total Bank financing for industrial,mining, and DFC projects (excluding program loans) during the five-year period FY1972-76. Even though conventional DFC loans and some industrial estate operations have benefitted a broad clientele, including small firms, the total amount of assistance to SSE is only some 4-5% of Bank financing of the manufacturing sector.

(viii) The Bank has, however, investigated a number of avenues for assistance to SSE. Industrial estates development has been tried in five countries, with a view to centralized delivery of financial and technical assistance to firms of varying sizes, and encouragement of sub-contracting relationships. The industrial estates approach is mainly attractive for modern enterprises at the upper end of the SSE size spectrum and for traditional firms emerging from the

limited neighborhood market; for the smallest enterprises the estates are an alien environment, separated from their communities and natural markets.

(ix) Seven DFC operations for SSE have been started, most of them including components to meet a variety of technical assistance needs; in two countries (Korea and Colombia) the Bank has assisted intermediaries which combine delivery of technical assistance and credit under one roof. Some of these institutions also provide for working capital needs of SSE; IFC has recently appraised its first SSE project (Kenya),to utilize commercial banks as intermediaries for credit and business advice to small and medium firms.

(x) A third, and most recent, approach aims at integrated SSE development. Examples include sites and services projects with credit components (Jamaica and Nicaragua); a project combining SSE assistance with the establishment of an export processing zone (Mauritius); a DFC operation in the Philippines which combines credit, technical assistance, support of rural cooperatives and a loan guarantee fund; and a comprehensive project which aims at dispersed SSE growth and job creation in Nigeria.

(xi) Some Lessons of Experience. Given the relatively recent Bank involvement with SSE, experience to date at the sub-project level has to do more with objectives, expectations and problems than with results, although on the institutional front some generalizations are possible. Perhaps the key operational conclusion so far is the recognition that support of SSEs usually requires a greater variety of inputs than for larger sub-borrowers. The components which the Bank can usually supply most speedily are credit and (through institution-building) basic managerial and financial advice. Technical assistance in appropriate technology for SSE, and for such delivery systems as cooperatives, sub-contracting and serviced industrial sites is equally critical; however, this is not an area of Bank expertise and requires collaboration with outside consultants and institutions. Coordination of technical assistance, so that their delivery is timely and usable, is essential. Effectiveness of coordination has varied to date because of the wide variety of institutions assisted; in most of the SSE projects undertaken so far coordination between the credit and technical assistance delivery agencies needs to be improved.

(xii) The identification and coordination of credit and technical assistance components in SSE projects adds considerably to the time required for project appraisal and supervision. The 32 DFC projects approved in FY74 and 75 required an average 49 man-weeks per project to appraise and negotiate; for the four SSE projects on which data are available, the average is 90 man-weeks per project. (The Bank Group average for all projects was 67 man-weeks in FY74 and 75 man-weeks in FY75).

(xiii) Finally, there are organizational reasons within the Bank why the beginnings of SSE development have been difficult and time consuming. The lack of clear assignment of responsibility for SSE work has meant that little cumulative SSE experience could be assembled; coordination has been poor among the various departments concerned with SSE; systematic ties with international technical assistance agencies have not been developed; and, therefore, the Bank has tended to start from scratch for each SSE project.

Utilizing Intermediaries Toward Poverty Impact Objectives

(xiv) The Bank cannot reach small enterprises directly, but must work through effective intermediaries. The following reviews possible means of utilizing intermediaries toward poverty impact objectives.

(xv) Stressing Labor-Absorptive Technology. One initial means of increasing the impact of Bank lending on the non-farm unemployment problem is to seek a major shift of emphasis, by the numerous DFCs with which the Bank already has a relationship, toward favoring labor-intensive technologies and assisting small enterprises to a greater extent than hitherto. Seldom is timely consideration given by the DFCs to more labor-intensive alternatives. Bank-DFC dialogues have stressed the need for DFCs to anticipate investment needs, through sector surveys, feasibility studies and promotion of enterprises; but the subject of labor-intensity has not been emphasized.

(xvi) As a first step it is proposed that a mechanism be supported in the LDCs whereby DFCs (and their clients) could readily obtain information about "adequate" technology as it applies to individual projects under consideration. Sources of such information in developing countries should progressively be built up, as in Colombia where the Bank's sixth financiera loan included a $5 million technology component. There is also a need to enable DFCs (and their clients) to gain access to the whole range of technological information in other countries. A number of agencies have been providing such information on a limited scale; however, there is scope for making it more readily and widely accessible, for tailoring individual responses more specifically to the needs of DFC sub-borrowers, and thereby for encouraging a more competent, efficient interchange of available information on appropriate technology. Preliminary discussions have been instituted with several of these agencies, with regard to the possibility of their providing a "technology referral service" for DFCs, and the potential of other institutions in this regard will be explored in the near future. At this stage, it is proposed that the Bank agree in principle to fund the establishment of a technology referral service for DFCs and their clients for two years, with an outlay of about $50,000 per year. This would finance responses to about 1,000 inquiries per year; for expensive inquiries on complex subjects, the Bank would pay only the first $75, the DFC or client bearing the remaining cost. The aim is that after a two-year period this technology service would become self-supporting.

(xvii) We also recommend that all DFCs currently committing Bank funds be sent a letter (copied to their governments) from the President of the Bank setting forth the Bank's interest in SSE development, including its concern to involve poor people more directly; emphasizing the importance of labor-intensive options in project design; inviting them to make use of the above technology referral service; and asking them to communicate suggestions and/or work programs to assist SSE or labor intensive projects to their governments and to the Bank.

(xviii) Widening the Scope of DFCs' Activity. Most DFCs financed by the Bank in the past have limited themselves to manufacturing industry or, in a few cases, hotel projects. To be more effective in employment creation, some of

these DFCs might widen the range of their loan or investment purposes --into construction, transportation, warehousing and distribution, fisheries, maintenance and repair facilities, and organized municipal and rural services. But they need to consider such a move carefully; these types of activities entail special risks of which DFCs should be fully aware.

(xix) Other Institutional Designs. In recent years the spectrum of institutions assisted by the Bank has broadened, largely as a result of a 1968 policy change by which the Bank assists government-controlled as well as private institutions; over three-fourths of the loans since then have been to government-controlled DFCs. The institutional spectrum needs to be broadened still further to cater adequately to SSE. In view of the risks and administrative costs of small enterprise finance, government institutions must play an important role, but there are interesting possibilities of working with commercial banks, municipal development institutions, and other autonomous institutions.

(xx) Commercial banks, in particular, could be promising intermediaries, given their network of branch offices which are more aware than centralized DFCs of the potential and needs of individual enterprises. Also, given that many small enterprises mainly need working capital, commercial banks could effectively combine their own short-term credits with longer-term finance obtained from the Bank. Still, as a practical matter, it is doubtful that most commercial banks would make a major effort, on their own initiative, to promote and finance SSE. To obtain a real commitment of their resources and energies will normally require compulsion or special incentives by government. A combination of ready access on favorable terms to government resources, plus a guarantee covering 50% or more of the risk of defaults, should in most cases be a sufficient inducement.

(xxi) The need for provision of seed capital, particularly for SSE projects, suggests the importance of assisting suitable investment institutions and holding companies, usually requiring government support. The Bank may also help on occasion to facilitate the flow of equity capital; the latest Colombia DFC loan included a $5 million component designed to encourage the financieras to make equity investments.

(xxii) The Bank Group is just beginning to explore the possibility of operating relationships with mass-oriented intermediaries such as municipal development banks, workers' banks, savings and loan institutions, and credit unions. Being accessible to the small borrower and able to assess his needs and merits, they have good potential as channels of finance to the lower end of the enterprise and income scale. Institutions assisting housing and home improvement also offer good prospects to further the objectives of employment creation and welfare for the urban poor. Due attention should be paid to the potential of such institutions for helping to mobilize savings.

(xxiii) The potential for including pawn brokers and money lenders in a program of credit allocation for poor people should be tested, perhaps within a structured urban development project. A moderate loosening of usury limits might actually result in more credit, more competition and lower effective interest charges to marginal borrowers. Commercial bank intermediaries might possibly be allowed to apply some part of an IBRD loan for SSE to finance neighborhood pawn brokers/money-lenders.

(xxiv) Additional Forms of Financing. A major problem, for SSE in particular, is to obtain adequate and timely access to working capital finance, which would sometimes permit more efficient use of existing capacity than physical investment. The Bank normally permits use of its funds under DFC loans only for acquisition of fixed assets and for "permanent" working capital, a rule generally followed by the DFCs in lending their own funds also; current working capital needs are supposed to be met by the commercial banks. But for SSE, commercial banks are often inaccessible. Hence in the preparation of SSE projects the Bank should seek explicitly to insure that adequate working capital finance is available, and be prepared in certain cases, subject to specific justification, to finance short-term needs --e.g., the funding of payroll and raw material requirements for a second/third shift in the expectation that if the market holds up this increment would become "permanent" working capital.

(xxv) Meritorious SSE projects may often have only a small foreign exchange requirement. However, the Bank's funds should still be used primarily to finance the import of equipment and services; where the direct foreign cost component is small, the Bank may also pick up the indirect foreign exchange expenditures; and in the Colombian small enterprise project the total (direct plus indirect) foreign exchange component in the DFC's overall lending program was made eligible for Bank financing by means of a formula whereby the Bank disburses 90% of the domestic procurement cost of fixed assets of specific projects -- the domestic costs being attributed to the DFC's or sponsor's contribution. However, for small enterprise projects, particularly in the informal sector, the foreign exchange content may be even smaller than the Colombian formula would allow the Bank to contribute; in such cases the Bank should be prepared to consider outright local currency financing.

(xxvi) Most conventional financing techniques are attempts to overcome the lack of collateral available to satisfy the requirements of formal credit institutions. To be sure, some institutions do not require any collateral from small enterprises; their confidence has so far been vindicated but such confidence does not exist everywhere. An alternative is hire pucchase arrangemnts; another is new forms of collateral such as life insurance certificates or cooperative guarantees. In many countries a government guarantee scheme may be necessary to enable SSEs to gain access to organized credit. This has worked well in India but less so in other countries. (Since guarantee schemes are likely to be vital for effecting the delivery of credit and technical assistance to SSE, it will be important to identify the factors affecting the success of such schemes.) Finally, leasing and factoring are additional techniques which should be considered for potential contribution to SSE development.

(xxvii) Programs with more direct poverty impact. The Bank's past industrial activities have generally had only indirect poverty impact, in creating off-farm employment for unskilled workers. Means to a more direct poverty impact might include subcontracting to SSE; institutional procurement favoring SSE; cooperative development; assistance to cottage/handicraft industries; low-cost housing and home improvements; and integrated programs for urban/rural development.

(xxviii) The outstanding example of systematic and successful subcontracting is Japan, where a symbiotic relationship has developed by which some 60% of the small and medium manufacturing firms subcontract to larger corporate customers. Similar relationships are rare in developing countries, but projects like the recent Bank support of rural feeder roads in Kenya indicate the potential of SSE

production of such items as hospital beds, office furniture, school equipment and hand tools under government contract. Sub-contracting relationships are complex; very small companies must form groups(ad hoc or permanent cooperatives) in order to be integrated effectively, and considerable technical assistance will no doubt be needed to work out the arrangements.

(xxix) The Bank has had considerable experience with rural cooperatives, but little with cooperatives in urban/industrial activity. Potentially, however, the latter could serve a vital function in assisting the poor people as a target/group, source of initiative, security and collection mechanism for credits, and delivery system for technical assistance. Among low income groups, where individual economic power is very weak, some form of cooperative enterprise or reinforcement is often essential to the groups' relative progress. Urban cooperatives may also establish mutually advantageous links with cooperatively organized rural production and distribution as an alternative and competitor to the traditional middleman. Bank financing will generally not be directed to primary cooperatives, which organize immediately productive functions (generally too dispersed for the Bank to deal with effectively), but to secondary cooperatives which group the primary tier and perform such services as procurement and marketing, technical advice, training of managers, auditing, guaranteeing credits, etc. Secondary cooperatives' intermediation may, in addition, facilitate government assistance to SSE in technological matters.

(xxx) Cottage industries/handicraft activities also offer significant potential for SSE development. The Bank should take account of these possibilities in its tourism and urban projects.

(xxxi) Except in the context of site-specific urban development projects, the Bank has done no lending for housing construction and home improvement. Financing in this area poses difficulties --avid demand, over-design and high cost, questionable subsidy policies, etc.-- but given the very important role small scale construction play in expanding job opportunities for the urban poor, the Bank should consider attacking the housing finance problem on a broader front. It is recommended that the Bank seek to identify projects in perhaps three countries which could serve as nuclei for generalized housing construction and improvement programs, primarily to benefit the lower 40% income level, subject to strict, specified criteria. Usually a special purpose housing finance institution would be more suitable as an intermediary than a typical DFC.

(xxxii) An especially effective means of meeting needs of poor people in urban and rural areas may be an intersectoral approach with mutually reinforcing project components, of which recent Bank missions to the Ivory Coast, Philippines, Upper Volta and Indonesia provide examples. The major problem with such integrated projects is their complexity, of both conception and administration. But this complexity, insofar as it reflects the intricacy of social relationships and community realities, may enhance the validity and appeal of the approach.

Delivery of Technical Assistance

(xxxiii) The technical assistance (TA) needs of SSE vary widely from country to country and by subsector and firm size. In general, however, they may be separated into two broad categories: business/management and technological/ engineering needs. Individual small firms require differing mixes of the two categories, depending on the product or service they provide, and the extent to which they may be considered "modernized".

(xxxiv) Since several of the SSE programs which can be envisaged now, for appraisal over the next several years, will be more complex and dispersed than past projects, the Bank must seek ways to meet the needs of those enterprises effectively and economically. This will usually require close collaboration with a local and/or international technical assistance agency. Some delivery systems that seem likely to be effective for SSE support are industrial centers/extension services, subcontracting relationships, government procurement programs favoring SSEs, industrial estates and cooperative and similar programs:

(a) Training/counselling /extension centers, providing a broad menu of actual problem solving, can be most effective in helping SSE clustered in urban agglomerations, although they may serve as bases for mobile teams to cover larger areas. Their utility is mainly in continuing help to overcome small bottlenecks rather than sophisticated accounting or engineering techniques; the need is for "nuts and bolts" technicians with basic skills and ability to communicate with small entrepreneurs. Training for such people may be important components in SSE projects.

(b) There are numerous examples of subcontracting arrangements by which the principal contracting firm helps its suppliers to deal with technical and managerial diffciuties--notably in Japan, also in the People's Republic of China, and India. The experience of UNIDO, UNDP and the Asian Productivity Organization suggest that industrial extension centers can play an important complementary or catalytic role in developing subcontracting relationships. The Bank itself has some experience with such centers in the Philippines and in Africa.

(c) Large scale government procurement designed to involve many small enterprises can help them both by providing an assured market and as a channel for TA. Often, however, an intermediary prime contractor is needed to organize the less qualified enterprises into the procurement system.

(d) One of the virtues of industrial estate development is the ease of delivery of services to estate-located firms-- including technical advice common facilities, such as tool and dye making, heat treatment, etc.; training of technical personnel; design of equipment, production techniques, packaging and technical standards; and quality control.

(e) There already exist many functioning industrial cooperative structures in the more than 60 developing countries, and some of them have their own technical assistance programs in place. African countries have a long tradition of developing handicraft cooperatives. Countries like India, Argentina, Mexico, Bangladesh and Pakistan have well-developed second-tier cooperative structures that provide extensive services to their members. Such secondary cooperatives can offer centralized services in planning, research, bulk purchasing, joint processing, machinery pools, repair shops, and sales promotion, along with all types of business and technical advice.

(f) Projects with more direct poverty impact, such as community development, certain kinds of cooperatives--which stress community involvement, maximum use of local materials and minimum capital requirements, upgrading of community skills (technical, organizational and managerial), and simple improvements in product finishing, packaging and marketing --impose special demands and requirements on TA agencies and personnel. For their role, if they

are to succeed, cannot be simply didactic; it requires a down-to-earth partnership in which community problems are jointly identified and solved.

(xxxv) Table 3 on page 47a contains a preliminary synopsis of technical assistance agencies--international, governmental and private-- indicating areas of expertise and regional specialization. This compilation is still very incomplete; supplementary information is being sought and will be welcomed, with a view to pinpointing collaborators with the Bank for new and increasingly complex patterns of SSE projects.

Issues

(xxxvi) Sector Policies. Should the Bank consider specific SSE projects before a "sector survey" has been undertaken of the policy environment for small enterprises? In some cases the policy environment is biased against SSE development, but not (so far) to the extent of making it appear unreasonable to start with a project. The premise of the present paper is that it is generally better, on balance, to initiate projects rather than to adope a wa t-and-see attitude. Still, in relation to each SSE project, a specific analysis should be made of the policy framework, to highlight shortcomings if any, and, if needed, a parallel overall study of the SSE sector should be initiated, to mount the next opeation from a more solid base.

(xxxvii) Delivery systems for the requisites to SSE development. Is there a clearly defined "effective delivery system' for SSE development? It seems that no set formula exists. Nevertheless, SSE projects and probably be prepared more quickly than in the past and it is possible to identify a common framework for SSE programs. This framework involves (a) a parallel institution-building effort for technical assistance and resource allocation; (b) coordination between those two functions at the international, governmental and local levels, respectively; and (c) a credit guarantee mechanism. None of the three are sufficient conditions for successful SSE projects, but all will usually be necessary.

(xxxviii) A TA institution-building effort, comparable to the Bank's own work with financial intermediaries,has been mounted in a number of developing countries. It has, however, been more fragmented, with the result that SSE agencies and projects may receive TA support from several uncoordinated sources. Closer coordination between the Bank and technical assistance agencies is needed. To that end, it is proposed that the DFCD's Small Enterprise Unit establish and maintain effective liaison with TA agencies that may be in a position to contribute to integrated credit and technical assistance for SSE projects, and establish a documentation center to keep up-to-date information on those agencies and their activities.

(xxxix) At the project level, there is also often a problem of insuring proper coordination between financial and technical assistance needed by small entrepreneurs. Current Bank thinking is that integration of TA and credit under one roof is generally more promising than reliance on cooperation between technical and financial assistance agencies having different sources of funds and authority. This view is shared by some, but not all, present and prospective borrowers, and some TA agencies disagree. Where TA and credit for SSE are provided from different sources the Bank's appraisals must consider how coordination between them will be assured in practice.

(xl) Availability of a risk guarantee system may be a vital factor in increasing the flow of finance for SSE. Also, in part alternatively, rediscount facilities specifically earmarked for SSE financing may effectively induce intermediaries to step up assistance to small borrowers.

(xli) SSE lending risks and institutional creditworthiness. The new Bank emphasis on SSE development involves two kinds of risks--that of a failure and default potentially affecting the health of a Bank-assisted intermediary, and second with respect to the Bank's own cost effectiveness. The latter is highlighted by a comparison between a repeater DFC operation in India and a new small/medium scale operation in Cameroon. The latter required five times as many man-weeks to prepare and, in terms of man-weeks per dollar lent, 167 times more. These are extreme examples, but the comparison illustrates the high costs and staff commitment required to prepare, appraise, implement and supervise SSE projects relative to more conventional operations. It also highlights the need for the Bank to concentrate on those SSE projects which (i) can provide a stimulus and model for efforts within the country and (ii) may be replicable elsewhere.

(xlii) Data for those countries where the Bank has helped intermediaries catering for both small and larger firms indicate that SSE intermediaries have greater arrears problems than the DFCs assisting larger enterprises. The former also showed much higher administrative costs and lower profitability. As regards the Bank's operations, these findings suggest that

(a) the Bank should normally allow a significantly larger spread (4%-8%) on loans to DFCs assisting small enterprises than has generally prevailed for conventional DFC operations (usually 1.5% to 3%);

(b) IDA and Third Window funds should be passed on at an interest rate below that of the Bank when necessary to accommodate the above spreads;

(c) where the Bank's lending rate does not give sufficient spread for SSE intermediaries, it will be necessary to seek concessional funding from other sources to allow an adequate margin;

(d) governments should normally assume the foreign exchange risk associated with Bank lending for SSE projects(subject to a possible fee, depending on anticipated inflation rates); and

(e) though the effort required to upgrade new types of intermediaries assisting SSE may be difficult and time consuming, the Bank should not compromise its creditworthiness standards for such intermediaries.

(xliii) Evaluating small enterprises and project benefits. The nature of SSE projects makes it impossible for the Bank to expect the same rigor and detail in subproject appraisals. More attention will have to be given to "character" appraisal, which cannot easily be systematized or based on quantitative criteria. The following rule of thumb is suggested for subloans for the smallest projects: (i) a 75% or better chance that the enterprise will still be in business five years hence, and have a satisfactory cash flow meanwhile;

(ii) working conditions are tolerable; and (iii) the project is consistent with national development priorities. For larger projects assisted by DFCs, however, the existing financial and economic criteria should continue to be used; in addition, DFC appraisal reports on all large subprojects should explicitly discuss alternative technologies considered.

(xliv) Poverty impacts other than employment. Poor people in less developed countries, especially those employed by SSE, are often paid exploitation wages and exposed to unhealthy working conditions. Can the Bank, and DFCs financing small enterprises avoid becoming accomplices in these abuses? It is often alleged that SSE could not survive in competition with more capital-intensive medium and large firms except by means of substandard wages and working conditions. Insofar as this is true the alternative to poor employment conditions may be absolute loss of jobs. It would be inappropriate for the Bank, or DFCs, to assume a policing role to enforce minimum wage, safety and health standards. On the other hand, it is clearly undesirable that Bank financing support enterprises, whether small or large, that grossly violate those standards. While discretion must be left largely to the intermediary, the Bank should press for including in DFC policy statements and operating rules an obligation to examine critically the working conditions maintained by sub-borrowers and to seek to upgrade them insofar as practicable.

(xlv) Programming implications. The units in the Bank concerned with DFC and SSE operations have analyzed the potential for increased Bank lending to intermediaries, especially SSE, and tentatively indicate project possibilities (total DFC-cum-SSE) which could reach $4.6 billion for the four-year period FY77-80; this compares with about $2 billion during the period FY73-76 and would represent an increase of about 110% in real terms. SSE lending might reach $1.3 billion during the next four years (or about 25% of total DFC lending), compared with $120 million during the previous four years.

(xlvi) However, these figures represent estimated potential, not a program. They have not been reconciled with projected or possible operations in other sectors within the constraints set by the Bank's overall lending ceilings. If the $4.6 billion DFC-cum-SSE lending program were programmed it would represent about 16% of total IBRD/IDA lending anticipated during the FY77-80 period (compared to an 11% share during FY73-76), putting this "sector" second only to agriculture (29% share). Such a substantial shift in emphasis would require careful consideration by top management. In this context a number of related issues arise: First,if a substantially lower DFC lending figure is to be aimed at, where should cuts be made? We recommend that efforts be made to maintain the percentage target for SSE financing at 25% or more of total DFC lending. Secondly, when existing DFC relationships must be "phased out" or substantially reduced, because of overall resource constraints or other reasons, the decision should be communicated to the DFC as early as possible, to enable it to intensify efforts to seek funding elsewhere.

(xlvii) Manpower and budget requirements. Manpower availability is a key limitation on potential expansion of DFC lending, particularly for small enterprises. The lending volume suggested as possible above would entail a 180% increase in the number of appraisals, and of the new operations to be mounted, 80% would be SSE projects. It is estimated this would require a doubling of professional staff strength by FY1980, presupposing considerable gains in staff efficiency and experience. A concommitant change in DFC staff composition

and emphasis will also be required and, at least initially, more outside consultants will have to be used in SSE project preparation and appraisal. Budget estimates reflecting the tentative potential program above indicate that by FY1980 a 120% increase in regional DFC budgets would be needed, corresponding to a 25% increase in direct budget cost per dollar lent. These estimates appear reasonable, considering that only four SSE operations were handled in FY76 as against a potential 33 such projects in FY1980.

(xlviii) Project monitoring. Given the diversity of SSE programs financed to date or in early prospect, and the experimental nature of several about to be initiated, adequate monitoring of project performance and experience is essential, as a means to improving the design of future SSE operations. It is therefore proposed that (a) DFCD organize, by the end of 1976, a monitoring system for SSE operations; (b) an indepth analysis of all Bank-assisted SSE projects be undertaken during FY1979-80; (c) DPS should analyze specifically the lessons that can be derived from the Bank's limited but growing practical SSE experience; and (d) a policy paper on SSE development be prepared by DFCD by June 1980.

(il) Organizational implications. Responsibility for development of small (non-farming) enterprises needs to be clearly located and defined. An interdepartmental Task Force is working on this.

Targets for SSE and employment impacts

(l) Even though the $4.6 billion potential for DFC-cum-SSE lending may be cut back substantially in practice, ambitious targets for the FY77-80 period can still be envisaged as follows (amounts in 1976 dollars):

(i) at least 50 SSE projects, totalling at least $400 million -- i.e., about a five-fold increase in the number of the SSE operations and a four-fold increase in the loan amounts over FY73-76 levels;

(ii) at least 10% (by amount) of aggregate Bank lending to other DFCs to benefit small enterprises, twice the estimated SSE share for the past;

(iii) at least ten experimental projects, with Bank assistance totalling at least $50 million, that would involve largely new types of intermediaries and programs (e.g. hire purchase, subcontracting arrangements, cooperative programs, cottage industries or integrated schemes);

(iv) at least 25% of total Bank DFC lending (by amount) to benefit DFCs whose subprojects have an average fixed investment per direct job of no more than $15,000; and

(v) at least 8 industrial estates projects in support of SSE, with Bank assistance totalling at least $80 million (as against two such projects totalling about $6 million during FY73-76).

The absolute amount of commitments against the above targets will depend on the overall eventual size of the DFC lending program. However, if that program were about $3 billion lending to meet the targets could equal about one-third of

of this figure, and would represent about 60% of the increase in DFC lending over the level of the previous four years.

(1i) Although the aggregate lending program is still uncertain, it is already clear that the regional breakdown of DFC lending will be markedly changed. EMENA's share would decrease, lending to Africa would show the largest growth in relative terms (perhaps as much as 50%) and EAP and LAC would also show significant relative increases. This had been expected, given the modest beginning previously made in Africa and a phasing out from Bank assistance of several EMENA countries.

(1ii) How significant, in terms of employment generation, will the new Bank emphasis on SSE be? Only crude guesstimates are possible but they suggest a substantial increase in the absolute level of resulting job opportunities. During 1975 Bank-assisted DFCs have been associated with projects which generated an estimated 400,000 jobs for poor people. Achievement of the targets shown above might, by 1985 assist projects that generate an estimated 1.4 million jobs for poor people. For 1975 50,000, and in 1985 as much as 225,000 of such jobs could be attributed to the Bank's financing share. The average fixed investment per direct job generated by the universe of DFC-assisted projects could decrease from about $16,000 in 1976 to about $13,000 in 1980. These rather impressive absolute figures, however, are small in relation to the magnitude of the problem. Given the stock of unemployed poor and the annual increment of job-seekers in the urban and rural areas, the Bank's employment contribution is marginal, accounting for less than 1% of the jobs needed in both 1975 and 1985. At the same time, these orders of magnitude reemphasize that the Bank's main impact must derive from the demonstration effect of sound projects that can be replicated widely.

(1iii) Other recommendations for the action program proposed in this paper are set forth in Chapter VII.

(1iv) Apart from the "top-down" approach to generating income and employment for poor people by financing SSE and other more labor-intensive projects, there is a need to devise projects and institutions and institutions which more directly involve the poor in the formulation and direction of programs designed to benefit them. Several experimental programs to this end are under study and preparation, for Upper Volta, Colombia, India, the Philippines and Egypt; so far as is possible at this early stage, they are described in Chapter VII.

I. INTRODUCTION

1.01 With his speeches to the Board of Governors in Nairobi (1973) and Washington (1975), the President of the World Bank Group signalled a new set of approaches and criteria for development assistance. He called for reorientation of development policies, to seek not only expansion of output in the developing world, i.e., growth of GNP, but more explicitly the objective of obtaining participation by the great mass of the people in the growth process, enabling them both to make a more important productive contribution and to share more widely in the distribution of benefits. He committed the Bank, in the conduct of its own operations, to give strong emphasis to this objective.

1.02 That the benefits of economic growth have been very unequally divided in the past, in virtually all developing countries, is evident from the most superficial observation--although systematic collection and analysis of the statistics is a relatively recent effort, the resulting data are spotty, and the intricate relationships among investment, productivity, job creation, and incomes are still imperfectly understood. But in most of the developing world, incomes and welfare are highly skewed toward the top 5-10%, and a very large proportion of those in the bottom 40% live in absolute poverty

> "a condition of life so limited by illiteracy, malnutrition, disease, high infant-mortality and low life-expectancy as to deny its victims the very potential of the genes with which they are born. In effect...a life at the margin of existence."1/

A population in such miserable straits, with scant hope of improvement, has little capacity or incentive to make a productive contribution to national advancement.

1.03 Bank Group financing to date appears by and large to have fostered a rise in productivity and economic growth. Also, by and large, as is the case with most economic development efforts, the benefits of this growth have accrued principally to the better-off members of their societies--those who own land, the value of which is enhanced by the availability of public services and the application of new agricultural inputs, who have access to credit and advice to make use of improved technologies, who have capital which earns high yields in an expanding economy, who have contacts in the banks and government offices. Most of the direct lending by the Bank Group to date has been for public service infrastructure; commercial agriculture, industry and tourism; and secondary and technical education which caters largely for higher income families. Bank lending through intermediaries (DFCs) for industrial and tourism projects also has mainly gone to relatively safe, substantial enterprises, which promise a good financial/economic return at modest risk and expense per unit of investment. Such a pattern of financing is quite understandable, and no doubt contributes substantially to economic growth, to job creation and hence to improvement of conditions and opportunities at all economic levels. Although it is not certain whether its aggregate effect is to increase the incidence of inequality, the immediate benefits of Bank assistance have accrued more to the higher than to the lower income groups.

1/ McNamara, Robert S., Address to Board of Governors, 1975.

1.04 The major portion of Bank Group lending (by amount) will doubtless continue in the pattern, and through the channels, established in the past. And this lending will continue, through direct and indirect job creation and through trickle-down and spin-off of benefits, to provide opportunities for low-income groups to improve their lot. But the opportunities so created will be insufficient, in most countries, to enable the great mass of their fast-growing populations to make a significant advance. For the only really effective means to improve their situation is through additional productive employment, by which they create an added value that can (in part) come back to them. The employment effects of many of the Bank's projects in the past have been limited in duration or amount per unit of investment, or difficult to assess. Thus the Bank wants to devise and implement new approaches/techniques/institutions to create productive jobs more directly and efficiently, and to channel a greater proportion of its financing in that direction. Such purposes would still absorb at best, a minor share of total Bank lending, but it should be an increasing share and increasing still more in absolute terms.

1.05 The preceding paragraph emphasizes productive employment, for the economies of most developing countries cannot afford continuing subsidies for makework or the submarginal output that characterizes many traditional jobs. Nor can they afford to provide, gratis or heavily subsidized, the amenities needed and lacking in most poor communities--water, drainage, decent housing, electricity, clinics and schools. The general population, mostly poor, must be enabled over time to pay for such amenities or to provide them for themselves--through wage-earning or organized voluntary/cooperative employment.

1.06 It appears, on the basis of experience and research so far, that small scale enterprises (SSE)1/ typically generate more jobs per unit of investment in their own direct production than larger firms. There is some evidence--but not conclusive for want of comprehensive date on indirect effects, the consequence of forward and backward production linkages--that the total job creation effect of SSE is greater. Intensive research to clarify these relationships is underway. What can be said with confidence, however, is that

(a) the direct employment potential of SSE is substantial, and by no means fully exploited;

(b) considerable possibilities also exist for upgrading the productivity and the product quality of SSE, making them more competitive with typical larger units, while maintaining their relative less capital-intensive character;

(c) SSE have advantages, hard to quantify, for social organization and morale, income distribution, mobilization of savings and development of entrepreneurship and managerial capabilities;

(d) there is no contradiction, although there may be a choice, between small, medium and large units to undertake particular aspects of a country's industrialization; and

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1/ For definitions see Chapter II, para 2.03.

(e) governmental policies, facilities and institutional arrangements may substantially influence the choice of technologies, and the size distribution of enterprises, and hence the employment effect of industrial and industry-related development.

1.07 A growing concern with the problem of poverty and the conviction that the principal means to its mitigation is through productive employment has led the Bank to (a) investigate in greater depth the potential for job creation and other benefits from enterprises (mainly manufacturing) in different categories of scale; and (b) seek means to assist, financially and otherwise, those at the lower end of the scale. Evidently, the latter purpose cannot be accomplished through direct lending by the Bank; the targeted beneficiaries are too small and dispersed for Washington to reach. Hence it is necessary to work through appropriately organized and oriented intermediary institutions in developing countries. This is the essential theme of the present paper--how to find and use intermediaries to promote productive, employment-creating entrepreneurial activity, and to allocate the needed investment resources efficiently, at the level where greater employment and incomes are most needed.

1.08 The authors do not know, unfortunately, any generally applicable formula. But there are some clues, more partial indicators, as to how the problem could be dealt with; and our present purpose is to suggest avenues for exploration, some constraints and contradictions that may be encountered, subjects requiring further intensive study, and a few possibilities for immediate practical action. What follows is thus a hybrid, combining various aspects of an issues paper, an action program and an agenda for further investigation and operational research. It is directed toward different audiences--OPS, Bank management and the operations/support units concerned with promotion of SSE. It proposes a multi-pronged approach:

(a) encouraging intermediaries (DFCs) with which the Bank already has relations to give greater emphasis to small and medium enterprise;

(b) identifying,and providing assistance to other intermediaries--commercial banks, cooperatives, industrial promotion and extension services, etc.--that offer promise for furthering the development of SSE;

(c) within the SSE area, initiating programs more directly affecting the poor, through assistance to informal sector activity and cooperative and self-help projects; and

(d) increased emphasis in DFC lending, whether for small or larger projects, on production processes and project designs that utilize appropriate technologies in the light of the factor proportions in specific countries--meaning in most, although not all situations, less capital intensity.

1.09 While the major focus of the paper is on the problem, and possible mitigation, or urban unemployment, this problem is intertwined in most countries with rural development needs. For urban unemployment results in large part from the spillover to the cities of rural underemployment, which could be ameliorated by non-farm job creation in rural areas; increased job opportunities in the cities, in turn, will help to raise rural incomes through increase of demand for farm products and through remittances; on the other hand, such improved urban job opportunities constitute a further inducement for migration to the cities, which helps the rural problem at the expense of the urban. The two cannot be separated; they are interdependent faces of unemployment, underemployment and submarginal employment that are endemic in most developing countries.

1.10 Similarly our analysis and proposals are not confined to the organized manufacturing sector, but encompass all phases of primary materials processing, transport and warehousing of goods, mining, construction, handicrafts, cottage industry and personal services. The economic efficiency, and the job creation potential, of all these activities--whether under private or governmental auspices--depends in large part on entrepreneurial initiative and management skills. A principal concern of the Bank, therefore, and of the present paper, is to enhance these qualities, and give them greater scope, in the SSE sector.

II. SMALL SCALE ENTERPRISE DEVELOPMENT

2.01 Until about four years ago the World Bank Group gave very little attention, at least so far as its own operations were concerned, to SSE development; since then a modest start has been made to help small enterprises, and the next chapter documents this beginning and some lessons therefrom. Currently, as was suggested in Chapter I, there is an active interest within the Bank, in its finding a much more important role in this sector, and a strong commitment to this effort. The shift in the Bank's orientation, toward greater emphasis on SSE, has been parallelled, in some cases preceded, by a similarly intensified concern for this sector on the part of many member governments, evident in reactions from Executive Directors of the Bank and in other ways.

2.02 In light of these trends, it is worthwhile to try to restate the case for SSE development, and some of the problems associated with it. For that, it is necessary to analyze the respective roles of small and large firms in the general process of economic development.

2.03 But first, a word on definitions: It is implicit in the argument that "small" must be a relative term of firm size, varying with different countries' pattern and stage of development, and with the policy aims and administrative criteria of their governments. The Georgia Institute of Technology 1/ has found at least 50 different definitions used in 75 countries. Definitions show a wide range and may relate to capital or employment, or both, or to other criteria. For instance, the figures for capital--adjusted to a consistent definition covering only fixed capital, excluding land and buildings, at 1974 prices and exchange rates--range from a lower limit of about $25,000 to an upper limit of $2 million. Employment maxima range from 15 to 500. Moreover, many of the countries surveyed do not have an official SSE definition; in others the institutions concerned with SSE use different, and sometimes conflicting, definitions. This paper accepts, as a working definition of SSE, all enterprises which are classified or regarded as "small" in their countries, subject to an upper limit of $250,000 (in 1976 prices) for fixed assets (excluding land).2/ Furthermore, no lower limit is set; therefore, the SSE definition of this paper also encompasses single man/woman businesses, family shops, firms with a handful of workers, cottage industries, etc.

The Role of Small and Large Firms in Economic Development

2.04 The technical and commercial transformation called the Industrial Revolution was accomplished largely through what--in current terms and by the above definition--are SSE, entities with modest capital, a few score workers, owned and managed by a single individual or family. Really large firms were slow to emerge. As late as 1900, the hundred largest British manu-

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1/ An International Compilation of Small-Scale Industry Definitions, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia, USA, January 1975.

2/ In practice, well over three-fourths of the "small" enterprises included in this definition will have fixed assets below $100,000 and employment below 50. Frequently, one finds SSE definitions of firms with employment up to 49. However, no single definition is right or wrong, and we have chosen a capital-based definition only to underscore the relative scarcity in the factor proportions between capital and labor. "Land" was excluded from the definition because of the valuation problem that is even more difficult in the case of real estate than for other fixed assets.

facturing enterprises were responsible for no more than 10-15 percent of manufacturing value added, and the picture was little different in the rest if Eastern Europe and North America.1/ At that time, although general laws of incorporation had been passed in most European countries, and at least fifty years earlier in some of the United States, only a small proportion of industrial output was produced by firms whose shares were traded on national Stock Exchanges. The owner-managed business, employing less than a few hundred people, was still predominant in manufacturing until the outbreak of World War I. The explosive growth of really large-scale organization, that is now generally taken for granted, essentially occurred in the next half century; large firms are now the dominant mode. Typically the hundred largest manufacturing enterprises in developed economies control at least half the total of manufacturing assets, with a varying but comparable figure for value added, but a lesser employment share relative to output.

2.05 Nonetheless, in developed market economies a large number of small manufacturing enterprises have continued to exist,2/ providing the familiar skewed distribution with the modal size being close to the smallest, and an extremely long-rightward tail stretching toward the giants. Many of these small firms are service-oriented, or produce for a circumscribed or a specialized niche in the market. Many also are producing intermediate products for large firms; the development of the subcontracting relationship has been particularly marked in the economic history of Japan,3/ although the base for this had been established as early as 1900. As industrialization proceeds, small firms seem naturally to shift their emphasis from activities that compete with large firms to those which are complementary. Some contemporary developing countries are already past the base point of this process while others have not yet reached it.

2.06 Nevertheless, leaving aside firms involved in subcontracting, the question arises why so many other small firms continue to exist. A common answer is that they have very distinct advantages in organization and marketing flexibility. A deeper answer is found in the nature of the process by which firms generally grow. Even if, in the absence of direct or implicit government restriction, the ultimate size of the modern corporation may be unlimited, there are financial, organizational, and marketing constraints on its rate of growth. On the financial side, past profits limit future growth; this limit can partly be overcome by take-over procedures, but these are often neither appropriate nor desirable in developing countries. Regarding organization, there is overwhelming evidence that it is excessively rapid expansion, rather than excessive size as such, that leads to the characteristic forms of managerial inefficiency.4/

1/ The data were recently developed by Dr. S. Prais of the British National Institute of Social and Economic Research.

2/ For instance, in the USA and Japan, small enterprises are 91% and 98%, respectively, of total manufacturing establishments.

3/ See S. Paine, Bulletin of the Oxford Institute of Economics and Statistics, May 1971.

4/ See for example, Edith Penrose, The Theory of the Growth of the Firm, Oxford, 1959, page 47 et seq; Mason Haire, Modern Organization Theory, New York, 1959, page 283; R. Marris, The Economic Theory of Managerial Capitalism, London and New York, 1964, page 114 et seq.

Moreover, if firms are to play an important role in developing the informal skill of the labor force, especially in developing countries, there is a clear limit on the number of people who can be effectively "trained" in any given period.

2.07 Different firms can grow at different rates and their growth rates in one, say, five-year period are not very highly correlated with their growth rates in the next period. But it remains valid to conceive of a kind of natural rate of growth for any enterprise, consistent with its continuing to function with reasonable efficiency. Thus many small firms exist because they either operate in fields where there is little opportunity to grow or lack the combination of luck and ability to grow larger.

2.08 By contrast, the international development effort of the past three decades has tended to foster the "creation" of large-scale organizations, by fiat or feasibility report, rather than a natural, organic growth pattern. In most developing countries a conscious industrial development policy was formed only after World War II, or later. By that time the model of industrialization in both the OECD and the Eastern European countries featured large, integrated plants; this is what they had for sale, conceptually and commercially. And it was what the incipient tycoons in the LDCs, or the industrial planners and managers in their governments, wanted. It seemed the modern way, the way to catch up quickly, with imported technology and turn-key contracts. Hence the big enterprises, public or private, enjoyed tax, tariff, import licensing and credit favors while smaller units survived as best they could, often with serious handicaps in relation to the administrative and financial establishment 1/-- e.g. in import licensing, access to credit, etc.

2.09 Such exotic industrial implants, as compared with firms that have grown organically in the national economy, have a poor record the world over; nationalized industries (other than those directly taken over without major disruption), many corporate mergers and state enterprises provide familiar examples. Less well known is evidence that in China enterprises built on previously existing small private firms have displayed a significantly better record of flexible contribution to development (especially to the diffusion of skilled labor) than state enterprises founded with Soviet assistance in the 1950s.2/ A wider literature 3/ confirms that the rationale of the Chinese policy known as "walking on two legs" is based on intermediate technology and organizational potential.

2.10 To sum up, there can be a strong symbiotic relationship between large and small organizations in the process of development, through subcontracting relationships and complementarity with different size firms appropriating particular markets and tapping different skills and raw materials. The process of industrialization benefits from the development of both small and

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1/ See for example, Peter Marris, African Businessmen, and IBRD, Financing the Development of Small Scale Enterprises, (RPO 277, July 1974).

2/ Thomas Rawski, "Problem of Technology Absorption in China Industry", American Economic Review, Vol 65, No. 2, May 1975.

3/ For a major survey, see Carl Riskin, "Small Industry and the Chinese Model of Development", China Quarterly, Vol 46, June 1971.

large firms. But previous development initiatives, both national and international, have tended to neglect the smaller end of the industrial scale in favor of the larger. The next sections will discuss reasons for seeking a better balance.

The Case for Assisting Small Enterprises

2.11 In virtually any country, regardless of the level of development, small firms complain of handicaps. They often lack technical knowledge and marketing capacity. They suffer from the indivisibility of their management and thus may be unable, for example, to utilize equipment intensively by means of multiple shifts. Commercial banks have frequently been found to favor larger clients; apart from the higher administrative costs on small loans, small firms have a higher death rate. Thus "the banker resolves his dilemma by paying more attention to collateral than to the viability of the enterprise or the ability and character of the potential borrower...he thus removes from consideration many good small investments." 1/

2.12 While a number of developing countries have initiated government schemes of assistance to small and medium scale industry, of one kind or another, until recently 2/ many of them have seemed to lack real drive. India, for example, as the Bank's New Delhi office has noted, 3/ is a pioneer in setting up organizations to serve the needs of SSI, "at least on paper... The problems are mainly low and indifferent quality of service, and this goes back to the capacity and remuneration of those rendering it". But the same report showed that a substantial amount of money had been lent, large numbers of industrial estates constructed and a long list of products reserved exclusively for the small-scale sector. South Korea, more notably, has experienced a highly successful export-oriented industrialization, very much based on small and medium scale enterprises. In other countries, such as Brazil or Singapore, rapid industrialization is occurring, with a reasonably normal, balanced evolution of various sizes of firms, yet with little real government interest in specifically helping small firms.

2.13 Yet SSE, in virtually all developing countries, accounts for at least 90% of total manufacturing and service sector establishments and about 50% of corresponding total employment. Their ubiquity alone would seem to weigh in favor of effective government action and foreign assistance to remedy the handicaps to which small enterprises are subject. But a more explicit case for encouraging SSE lies in its employment creation potential. Large firms designed on the OECD or Eastern European model have undoubtedly raised industrial production and productivity levels in many developing countries, but without a corresponding reduction in unemployment rates, so that rising output is often

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1/ Sharing in Development, ILO, 1974, page 159.

2/ A study of recent Bank appraisal reports reveals that locally funded lending to small and medium scale industry has tended already to have increased sharply in the past few years in the countries concerned.

3/ "Small Scale Industry in India", SA-33a, May 1972, p.v et seq.

associated with widening poverty. An alleged capital-intensive bias in large firm development is held partly responsible; small firms, by contrast, are said to be more labor-intensive without necessarily being too costly or unprofitable. These arguments are plausible but they need further examination.

2.14 A sufficient number of comparative studies of small, medium and large firms in different developing countries, as well as in developed countries, permits the following generalizations:1/ small firms in contemporary developing countries use less capital per man, produce very much less value-added per man, and pay lower wages per man, than large firms. (All these are also true of the relationships between medium and large firms, on the one hand, and small firms, on the other, in countries such as the UK and the USA. The data for contemporary Japan are more ambiguous, although it is not so long since Japanese small industrial firms produced one-fifth of the value added per man of the large firms, compared with a US figure of about two-thirds.)

2.15 Comparative investment costs per direct job generated, as shown in the table below, suggest that small enterprises use significantly more labor-absorptive factor proportions.

Table 1

Fixed Assets/Direct Employment in Selected Countries

	India 2/	Colombia 3/	Philippines 4/
Small Enterprises	$2,500	$3,000	$2,000
Medium/Large Enterprises	$5,000	$13,400	$8,000

In interpreting the above table, three points must be stressed. First, the data reflect investment decisions which were taken perhaps 5-20 years ago and assets have since been depreciated. Second, the data were collected several years ago and asset values would be substantially higher in 1976 prices;5/ it is likely that small enterprises would now show an average fixed asset/direct employment

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1/ See for example, UNIDO, Small Scale Industry in Latin America, UN 1969, page 89-113; ILO, Sharing in Development, 1974, pages 539-567, S. Paine, op. cit., and B.F. Hoselitz (Ed.), The Role of Small Industry in the Process of Economic Growth, 1968.

2/ Data from Annual Survey of Industries and ICICI-Publication "Financial Performance of Companies", 1973/74, p.23.

3/ Banco de la Republica, El Mercado de Capitales on Colombia, Bogota, 1974 Other estimates of the cost/job in Colombian medium/large enterprises, quoted in the Bank's 1972 OED report on Colombia, range as high as $15,000-22,000.

4/ ILO, Sharing in Development, p. 546; data for small enterprises from a 1970 survey of furniture, garments and metal-working business in Greater Manila.

5/ For instance, based on a sample of 435 companies in its portfolio, ICICI (India) found that their incremental cost/job ratio increased by 20% between 1973 and 1974.

ratio between about $3,000 and $8,000, as compared with a $10,000-$20,000 range for medium/large enterprises. What is therefore important is the relative order of magnitude of labor-intensity between small and larger enterprises, which is roughly three times higher in small firms. Third, these figures reflect the situation of the firm as a whole usually comprising a succession of projects for expansion and improvement; and the cost/job ratios are significantly higher for the later investments in all sizes of firms, on average about three times higher. This is because in many cases, as a company grew and prospered, it "upgraded" its production technology, became more "modern" and capital intensive; some of the later investments were explicitly designed to replace labor, and still others served to break bottlenecks and raise capacity utilization and output without greatly increasing the work force. Hence project related (rather than company related) cost/job ratios derived from the Bank's DFC borrowers are much higher than the figures in Table 1 above.

2.16 A series of Special Studies on the "Developmental Impact of DFCs" in six countries showed, on the basis of 160 projects, an average fixed investment per direct job of $10,200, with two-thirds of the projects below the average.1/ A more recent study,2/ undertaken in preparation of this paper, confirms earlier findings that cost per job ratios are also highly correlated with project size (not just company size). The main findings from this study are presented in Annex 1 and they are summarized here for convenience:

- compared to data from the earlier Special Studies, investment costs, mainly on account of inflation, real cost increases for machinery and equipment and exchange rate adjustments, have gone up sharply; the average fixed investment to generate each job is estimated at $16,000 in 1976 prices

- there are considerable variations in cost/job ratios according to DFC and region and, also as expected, by sector; and

- capital-intensity is generally highly correlated with project and firm size, but for at least half of all DFC-assisted projects a fixed cost/job ratio below $8,000 is estimated.

2.17 The much lower cost/job ratio for small firms and projects does not, however, permit a fully confident conclusion that the smaller units can be more effective than large enterprises in employment generation overall and in creating productive employment opportunities for poor people in urban and rural areas. As regards the latter, no detailed studies of demographic employment characteristics have been performed as far as we know, but data collected from about 250 recent DFC sub-project appraisal reports suggest that small to medium enterprises sponsor projects which have a much higher incidence (about 65%) of employment opportunities for unskilled people than medium to large enterprises where

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1/ IBRD, DFC Policy Paper, R75-172, August 1975, p. 12. This average, which would be about $15,000 in 1976 prices, can be taken as representative of medium-sized projects assisted with Bank funds.

2/ This study involved all sub-projects which were submitted since July 1, 1975 for authorization to withdraw from the loan accounts and which contained employment information. The sample is, however, heavily skewed in favor of large projects (above the "free limit") since reports on small projects usually did not contain employment information.

the corresponding figure is about 50%. Inasmuch as unskilled job opportunities are likely to benefit poor people, the direct poverty impact by small to medium enterprises is therefore likely to be higher.

2.18 This leaves the question to be discussed whether the total (direct plus indirect) employment impact by small enterprises is likely to be higher. It has often been stated that large projects, even though their direct fixed investment/job may be very high,1/ contribute powerfully to indirect employment generation through backward and forward linkage effects. However, the subject of indirect employment is enormously complex, and is a high priority area for Bank research. The Colombia Special Study 2/ was a first and preliminary attempt at quantifying indirect employment effects. The study estimated that they amount to about 50% of direct employment generation overall, but individual projects showed extremely wide variations; in fact, in 13 of 28 projects the indirect effect was negative and in five of the 13 cases, the inclusion of indirect employment aspects has actually rendered a negative result as to the total employment effect. These findings need to be supplemented by further studies, but they indicate the importance of indirect employment effects.

2.19 The question whether large enterprises, as a group, have a greater indirect employment effect, per unit of total fixed investment, than small firms is thus still unsettled. There is, however, some evidence that leads us to conclude that not only the direct, but also the total, employment effect of SSE is greater. The evidence is linked with the nature of the respective inputs by small and large firms. As shown in para 4.35 below, the propensity to import--both capital goods and raw materials--is much greater for large enterprises. Not only are they more capital intensive, they are also more likely to use processed or synthetic raw materials unavailable locally. (Replacement of leather sandals by lower priced plastic shoes is a typical example.) The practical impact then is that larger, modern sector investments are more likely to (indirectly) export jobs than are small firms. This, incidentally, is confirmed by the Colombian Special Study which showed that relatively small firms (median employment of 90) had a much lower import propensity and much larger indirect employment than large firms (median employment of about 400). In fact, larger firms showed little indirect employment generation, also because they tended to displace existing production to a greater extent than small firms. Indeed, it can be expected that large enterprises, as a group, would have a greater substitution-propensity (i.e. for driving other firms out of business) than small firms 3/ (supermarkets vs. "mom-and-pop" grocery stores are but one example). In sum, therefore, there is a strong prima facie case that small enterprises as a group do have a greater overall employment generation effect than large firms.

1/ For instance, most of the Bank's direct financing of industrial projects has gone to large, capital intensive projects with a total cost usually in excess of $100 million; their fixed costs/direct job directly have recently ranged between $160,000 and $400,000.

2/ IBRD, Developmental Impact of Financiera-Assisted Projects, Report No. 842-CO, August 22, 1975.

3/ Research of this subject would be an important aspect of investigating the factors influencing indirect employment generation.

2.20 Many small firms are labor intensive either because the nature of their market or product precludes capital intensive techniques, or because capital intensive operations are not divisible below a certain range and cannot be economically operated on a small scale. On the other hand, large firms, producing for a wider market, may also have a choice among relative factor proportions in planning their investments and operations. But use of labor-intensive techniques in large enterprises often poses special difficulties--labor union pressures, government regulations, etc.--which weigh much less heavily on SSE; it is partly to avoid these problems that the large firms move toward capital intensity. Put another way, at a given stage of development a country will possess a definite, limited capacity for organization of manpower use on a large scale, but may yet have unutilized capacity for organizing increased labor productivity and income on a small scale. This is saying quite a bit more than simply that the building blocks are there; it is saying that there is a pool of potential entrepreneurs and employees who, for a variety of local reasons, can be more effectively and productively employed in small teams than in large groups.

2.21 Unlike the contention that small firms have a greater employment generating impact, the argument relating to organizational potential is unsupported by hard facts. But the two together represent a powerful combination; small enterprises which succeed in becoming large will almost certainly become more capital intensive, but at various levels of development the technology and factor proportions must be appropriate to the stage of organizational development. Accepting this, in preparation and appraisals of SSE projects it can be reasonably taken as given that they will generate increased employment, but the organizational pattern, and the technical and management reinforcement that may be needed to make it effective, deserve particular attention.

2.22 Successful SSE development may also contribute importantly to increasing overall private savings and mobilizing them for productive use. Again quantitative data are scanty but there is abundant empirical evidence, from many countries over many decades, that small entrepreneurs are very highly motivated to save and invest and reserve a greater proportion of their incomes for this purpose than the general population.

2.23 Finally, there are other well-known arguments,also difficult to quantify, favoring the support of small enterprises. They include the role of SSE as "breeding grounds" for entrepreneurial development, in providing stability and coherence to communities, and in reducing inequalities of income distribution as between regions and economic groups. Other advantages cited are SSE's potential to help stem migration to metropolitan areas, to utilize agriculture/agribusiness/industrial linkages, to increase exports, to increase rural labor productivity and income through subcontracting arrangements with larger enterprise, and to directly involve people at the lowest income scale in employment, ownership and decision making through cooperatives and other community-based projects.1/

1/ For further references on the problems and potentials of small enterprise development see, for instance: E. Staley and R. Morse, Modern Small Industry for Developing Countries, 1965; R. Davenport, Financing the Small Manufacturer in Developing Countries, 1967; IBRD, The Development of African Private Enterprise, 1971.

2.23 Taken together, these considerations make a powerful case for the Bank to give strong emphasis to SSE development in its operations, especially in pursuit of its urban development objectives but also as an important component of dynamic rural development. Before exploring possibilities for giving practical effect to this emphasis, it will be useful to give an overview of the Bank's experience with SSE projects up to date, and to draw some preliminary conclusions from this experience.

III. BANK GROUP LENDING FOR SMALL SCALE ENTERPRISE

3.01 During the five-year period FY72-76, Bank Group financing for industrial, mining, and DFC projects (excluding program loans) amounted to about $5,300 million. Of this total, only about $120 million were explicitly directed to assisting SSE; and almost all of this latter amount has been approved in the fiscal years since 1973. Table 2 below shows projects so far approved, plus those favorably appraised and pending presentation to the Executive Directors.

Table 2

Bank Projects with SSE Impact

Country	FY	Nature of Project	Amount ($ million)	Estimated SSE Share ($ million)
Pakistan	1962	Ind. Estates Dev.	6.5	6.5
Pakistan/ Bangladesh	1970/72	T.A. & Import Finance	3.0	3.0
India	1973/76	DFC	65.0	30.0
Mauritius	1973	Ind. Estates Dev. & Export Processing Zone	4.0	2.0
Yemen	1974	Ind. Estates Dev.	2.3	2.3
Nicaragua	1974	Sites & Services Dev. & Credit	2.5	2.5
Jamaica	1974	Sites & Services Dev. & Credit	1.9	1.9
Bolivia	1975	Mining Dev./DFC	6.2	3.2
Colombia	1975	DFC & T.A.	5.5	5.5
Philippines	1975	DFC & T.A.	30.0	15.0
Cameroon	1976[1/]	DFC	3.0	1.5
Ivory Coast	1976[1/]	DFC & T.A.	5.6	5.6
Nigeria	1976	Integrated SSE Dev.	30.0	30.0
Kenya	1976	DFC/Commercial Banks	2.0	1.0
Korea	1976	DFC	30.0	15.0
		TOTAL	197.5	125.0

The most important projects are described in some detail in Annex 2. All but one of these projects (the Kenya project for small/medium firms through commercial banks was initiated by IFC) have been appraised by the Industrial Projects Department and the DFC Divisions.

1/ Project was ready in FY75, but Board approval was delayed until July 1, 1975 to permit IDA funding.

3.02 In addition to the foregoing loans targeted toward small enterprise, most of the conventional DFC loans as well as some industrial estates operations, have benefited a broad clientele, including small firms,[1/] so that the actual amount of Bank Group lending to SSE is significantly higher. During the five years through FY76, the cumulative total amount of Bank assistance to enterprises falling with in the small scale definition set out earlier is estimated at about $250 million. Even this total, however, represents only some 4-5% of Bank Group financing to the manufacturing sector during this period.

3.03 Despite the relatively small amount of loans in effect or appraised so far, the Bank has investigated a number of avenues in different coutries for channeling assistance to SSE. These various approaches are discussed in subsequent paragraphs.

3.04 Industrial Estates. Through FY75, the Bank has approved five operations for industrial estates development. All are IDA credits, and most are in Asia. Chronologically listed by fiscal year, the projects are in Pakistan ($6.5 million, 1962), Mauritius ($4 million, 1973), Indonesia ($16.5 million, 1974), Yemen ($2.3 million, 1974), and Tanzania ($23 million, 1975). Whereas the projects in India and Tanzania are essentially directed at medium/large enterprises and the Mauritius project benefits both small and medium firms, the remaining two are exclusively designed to assist small estate-located businesses.

3.05 The approach of relying on industrial estates to assist small firms has much to recommend to it for certain kinds and sizes of SSE (see para 3.07 below), although if used flexibly as part of a broader program of assistance its impact can probably be heightened. Whereas a credit and technical assistance component for SSE was usually a subsidiary objective of industrial estate development, now the equation is being reversed to include an industrial estate component as one part of a project (Nigeria, see para 3.11) whose primary objective is assisting SSE.

1/ A study undertaken of a large sample of Bank-associated DFCs in the 1970-72 period indicated that of about 5,000 enterprises financed by the respondent DFCs, about 50% (by number) had fixed assets after project completion of less than $300,000; about 30% had fixed assets below $100,000. However, the size distribution of sub-borrowers was quite wide, and only about 5% by amount of DFC lending has gone to the small enterprise sector.

3.06 Specifically, industrial estates facilitate the centralized delivery of financial and technical assistance to small firms. Normally when estates are set up in anticipation of significant numbers of small firms, on-site offices are included to meet the credit and counseling needs of entrepreneurs. Since experience has shown that timely delivery of credit and advice and conscientious follow-up are critical components for successful assistance efforts, concentration of the target group in an estate can ease what is frequently a weak aspect of project design. In addition, the provision of standardized buildings and modern public utilities (with perhaps a lease/purchase option) is of relatively greater importance to small entrepreneurs than larger ones and can assure a certain standard of healthful working conditions for employees.

3.07 Balanced against this, however, are some natural roadblocks to reducing the average size of estate-located firms. Simply put, industrial estates are most attractive to SSE at the top end of the range of small firms, which usually include those in the modern sector with either subcontracting operations (sometimes with larger firms also located on the estate) and/or a regional or national market. For most small firms (and especially those which the Bank Group has not assisted so far) in the service sector, and particularly in the informal sector, industrial estates are an alien environment, which are usually separated, both physically and psychologically, from the communities and/or natural markets of these businesses. The dilemma here is that to make estates attractive and profitable, costs must be reduced. This requires cheaper land, which is unavailable except on the urban fringe. For firms competing nationally or internationally, reduced overhead increases competitiveness. For them, industrial estates make sense particularly if a different location adds little to transport costs, as they do for small firms which service the estates directly or which are captive producers for larger enterprises. For the remainder of SSE, their business is largely on a "stop-by" basis.

3.08 Development Finance Companies. The seven small/medium enterprise DFC operations through FY76 are of recent vintage and benefit firms in Asia (4), Africa (2) and Latin America (1). Chronologically listed, the projects assist enterprises in India ($25 million, 1973 and $40 million, 1976), Colombia ($5.5 million, 1971), the Philippines ($30 million, 1975), Korea ($30 million, 1976), Cameroon ($3 million, 1976) and Ivory Coast ($5.6 million, 1976). DFC/SSE operations have on the whole concentrated on expanding term credit availability, albeit for a new type of consumer, and improving the financing and operating techniques of the financial intermediary. In addition, however, more attention than in other DFC projects was paid to mobilizing technical and business assistance to subborrowers as well as coping with the problem of the increased risks associated with SSE lending. In five of the six countries with SSE projects, technical assistance apart from institution building is a vital project component. (For a series of reasons, including provision of

technical assistance by other means, the Indian project has concentrated on the formidable task of upgrading 18 state financing institutions which cater mainly to small firms. Nevertheless, delivery of technical assistance is reviewed in the project documents and is considered vital by both the Bank and Government). A good example of a DFC project which includes a strong technical assistance effort as part of the operation is the Philippines project. This project is also remarkable in that the IBRD agreed to finance directly the technical assistance component. In order to coordinate national credit and technical assistance efforts, the Government established, within the Department of Industry (DOI), a Commission on Small and Medium Industries. Members of the Commission represent the major financial intermediaries dealing with SSE (including those supported by other IBRD project components) and technical assistance agencies. In addition to this coordination effort at the ministerial level, field teams have been established whose technical advise to SSE will be coordinated at the regional level with Small Business Advisory Centers. The Bank's support of these regional centers pays for the capital costs of their establishment,while their operating costs are borne by DOI budget allocations (SSE will receive these services free of charge). In addition, another project component which relies on rural cooperatives for credit delivery envisions technical assistance (on the basis of gradually rising fees) to local cooperatives societies.

3.09 In two of the countries (Korea and Colombia), the Bank has assisted intermediaries which combine the delivery of technical assistance and credit under one roof. 1/ Evaluating the operations of these institutions over the next several years will be particularly important, since it is an open and important question at this juncture whether the most effective SSE financing program will require an integration of TA and financial services to an extent where both types of assistance are being provided by one institution.

1/ For instance, apart from its financing, the government-controlled Medium Industry Bank (Korea), is active in providing technical assistance and extension services to small and medium industry (SMI) firms. With the help of ILO and UNDP since 1967, MIB has built up its Extension Services Department which now has the capacityto supply effective technical and managerial consultancy services. In addition to these services, MIB has undertaken a variety of developmental functions including feasibility studies on specific SMI activities, professional seminars, and various publications which have wide circulation in the Korean small business community.

3.10 Integrated SSE Development. The above-mentioned Philippines project is already indicative of the comprehensive and interdisciplinary nature that can characterize SSE operations. Other examples are Sites and Services projects which contained credit components (Jamaica and a rehabilitation scheme in Nicaragua), a project which combined the provision of technical assistance with the development of an export processing zone (Mauritius), and -- one of the most innovative cases -- a project for integrated SSE development (Nigeria) described below.

3.11 Following a Bank survey of the small-scale manufacturing/service sector in Nigeria, a comprehensive $139 million SSE development project of national scope was identified (a $30 million Bank loan is scheduled for Board presentation before the end of FY76). Its objective is to stimulate SSE growth and job creation in a dispersed pattern throughout Nigeria. It is designed to provide the country with the institutional capabilities (industrial development centers, credit schemes for small enterprises, the SSE division in the Ministry of Industry, a training center, and industrial estates) to (i) formulate economically rational policies and programs affecting SSE growth, diversification and performance, and (ii) apply effectively the major resources needed to overcome management, technology, and credit constraints. The project will be implemented over five years, coinciding with and forming an integral part of Nigeria's Third National Development Plan. It represents the first phase of a long-range SSE development program.

3.12 Conclusion. Given the relatively recent Bank involvement with SSE (only about 10% of the $200 million approved for small/medium projects has been disbursed so far), experience to date at the sub-project level has to do more with objectives, expectations, and problems than with results, although on the institutional front some generalizations are possible. But there too, the generalizations are preliminary, given the diversity in the project designs of the small number of SSE projects implemented so far. The diversity begins with differences in objectives on the part of recipient Governments, even before Bank involvement. Assistance to small entrepreneurs is almost everywhere politically and rhetorically attractive. Whether or not there is substance to rhetoric, however, varies, as do the reasons for giving or denying it substance. What the Governments wants -- or claims it wants -- may or may not influence project orientation. In Korea, for example, small enterprises have shown a considerable export orientation in line with Government objectives. In most other countries, however, price and exchange rate policies have made it more attractive for SSE to produce for domestic markets, despite stated Government export goals. Beyond this, a variety of project designs has sprung also from the Bank's tendency of strengthening existing technical and financial assistance institutions rather than creating new ones. (This point is discussed more fully below.)

3.13 However, some features can be outlined that are common to most SSE projects. First, and perhaps the key operational conclusion so far, is the recognition that support of SSEs usually requires a greater variety of inputs than for larger subborrowers. The component which the Bank can usually affect most speedily concerns the provision of credit and basic managerial and financial advice. The second critical component is technical assistance in engineering and systems work on such delivery systems as cooperatives, subcontracting, and serviced industrial sites. Although other inputs in support of SSEs such as public utilities, transport links, rationalized tax structures, streamlined import licensing, investment incentives, etc., have been and will continue to be important objectives of Bank Group involvement, it is probably fair to say that the delivery of credit and technical assistance has been and will remain the critical nexus of project development in the sector.

3.14 Two important results flow from this recognition of the need to provide both credit and technical assistance. First, priority in project design and appraisal must be given to coordination of the two so their delivery is timely and usable. Experience in meeting this requirement for coordination has varied to date because of the wide variety of delivery modes used. Occasionally (for instance with MIB in Korea), the credit delivery mechanism (the financial intermediary) supplies also technical assistance.[1/] Sometimes the financial intermediary has simply been responsible for coordinating delivery of assistance from other organizations. And sometimes, coordination of credit and assistance has been left to an external (usually Government) agency. (In no case so far has the credit delivery mechanism been grafted onto an existing technical assistance agency). In any event, in most of the SSE projects undertaken so far, the coordination between the credit and TA delivery agencies needs to be improved significantly. It may well be that if the Bank had undertaken these projects jointly with bi- or multilaterial TA agencies, better integration, at the local level, of financial and technical assistance would have resulted. The Nigerian project, on the other hand, has been planned with a significant UNIDO contribution in terms of mission support and on-going technical assistance including training of local consultants. A similar collaboration also took place on the Colombia project.

3.15. Second, the identification and coordination of the credit and technical assistance components in SSE projects adds considerably to the time required for project appraisal and supervision. Precise data on the amounts of time necessary to appraise, negotiate and supervise SSE projects are difficult to come by, given the limited sample available and the fact that the time recording requirements were applied to Bank operations only in FY73. Nevertheless, staff experience that SSE projects do indeed take more time

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1/ Although this may make sense organizationally, it may prove an expensive undertaking for the financial intermediary and TA programs may end up being curtailed to maintain earnings. This point is more fully discussed in the next chapter.

are buttressed by preliminary data. For instance, the 17 DFC projects approved in FY74 and the 15 DFC projects in FY75 required an average 47.0 and 51.1 man weeks per project, respectively, to appraise and negotiate. For the four SSE projects on which data are available, the average is 90 man weeks per projects. (The Bank Group average for all projects was 66.9 man weeks in FY74 and 74.9 man weeks in FY75).

3.16 When it comes to choosing the appropriate delivery vehicles for credit and borrower assistance, Bank experience shows that it is usually easier to work within the existing institutional environment, adapting and shaping pre-existing local institutions, rather than to create new intermediaries. In almost every country, there are organizations and programs on the books designed to assist SSEs. The organizations are frequently weak and ineffective, but the mandate for action is there as well as minimal staff. As a result, in virtually every SSE project approved or planned, the key institutions involved are used not because alternatives to them are inconceivable, but because they are there and functioning even if imperfectly. However, a judgment will have to be made in a few years whether this turned out to be a more expeditious approach than creating new institutions.

3.17 In any event, concerning the types of vehicles chosen to deliver credit and technical assistance, experience has varied widely precisely because of the reliance on existing mechanisms. On the credit side, private commercial banks have been used in Pakistan, Philippines, and Kenya, and to some extent in Yemen, government-owned commercial banks in Bangladesh, government-owned development banks in India, Cameroon, Ivory Coast, the Philippines, Indonesia, and Nigeria, mixedprivately-publicly owned development banks in Colombia and Yemen, and rural cooperatives in the Philippines. Similarly, technical assistance delivery vehicles have also differed greatly. Among the agencies used have been university groups (Colombia), domestically and internationally supported semi-public organizations (Cameroon, Ivory Coast), private consulting firms (Colombia and Nigeria), and of course, government agencies. In the case of the Philippines, the Government created a parallel program of local assistance centers and field teams to provide borrowers technical assistance.

3.18 On the whole, the provision of technical assistance to SSEs in Bank Group supported operations has not been self-liquidating, although in Kenya commercial banks participating in IFC's proposed scheme will be expected to provide basic business assistance on a reimbursed but non-profit making basis. In the Philippines, Colombia, and Nigeria, the Bank (contrary to its normal practice) provides direct financing for the technical assistance components. In the more usual cases of Yemen, Cameroon and Ivory Coast, financial support for the technical assistance component was obtained from UNIDO, UNDP, or private sources. Industrial Estate Projects with SSE components have relied on Government funded assistance programs, usually with an estate located office, to deliver necessary business and technical support.

3.19 The next broad observation concerning the Bank Group's experience to date has to do with its own objectives. Generally, the Bank's aim of lending for SSE has been to support Government policies in the sector, whatever these policies may be in detail. The focus has not been exclusively or primarily on employment creation, import substitution or export stimulation or regional decentralization, but rather more broadly in support of government's firm commitments to make usable credit and advice available to a historically neglected group of entrepreneurs. This approach, flexible as it is, also explains to a large degree the difficulty in developing replicable SSE projects. As future SSE projects are being prepared, there is a need for the Bank to spell out in more detail than hitherto the set of objectives to be achieved in individual operations. This underlines the importance of developing a project monitoring system for SSE (see Chapter IV). The Bank's ability to have a demonstration effect in the future will depend significantly on these factors.

3.20 Finally, there are Bank-internal organizational reasons why the beginning in terms of SSE development has been modest and more difficult and time-consuming than necessary. The fact that no clear division of responsibility for SSE work has emerged within the Bank has meant that (i) little cumulative SSE experience could be assembled; knowledge from SSE operations and sector work is fragmented and hence an ineffective base for Bank-wide strategy; (ii) coordination has been poor among the various departments concerned with SSE; (iii) few effective, systematic ties with international technical assistance agencies were established; and (iv) therefore, (perhaps with the exception of some industrial estates projects), the Bank usually started from scratch whenever an SSE project was mounted. Right now, with Urban Projects and Rural Development showing a justified interest in SSE that may also, to some extent, characterize the IFC,[1/] the cast of actors, paying an SSE part, widens. And right now is also the time to create a locus of responsibility for SSE operational support, coordination, and the establishment of links with outside agencies. More on this in Chapter VI.

3.21 It is impossible for the Bank to reach small enterprises directly; effective intermediaries are necessary to retail the Bank's assistance to hundreds and thousands of small enterprises. Furthermore, the Bank must widen its spectrum of assistance to achieve a greater impact on SSE development and more attention must be paid to employment generation and technological factors in the design of projects and products sponsored by small, as well as larger, enterprises. A discussion of these aspects follows next.

1/ See the report on IFC's capital increase, IFC/L76-5, February 5, 1976, p. 10.

IV. MEANS OF UTILIZING INTERMEDIARIES TOWARD POVERTY IMPACT OBJECTIVES

4.01 Given the premises advanced earlier that

(a) SSEs have significantly greater potential than larger firms for creating productive employment in most developing countries;

(b) SSEs are subject to considerable handicaps in comparison to their larger counterparts; and

(c) Bank financing so far has only marginally benefitted SSE --

how can the Bank now contribute more effectively to promoting SSE and more generally to employment creation/productivity improvement, particularly for the lower 40% of the non-farm population?

4.02 As noted earlier, it is clearly impossible for the Bank to reach directly the entrepreneurial segment within, or serving, this target population. It needs to find, help create and use financial (and other) intermediaries solidly rooted in the local context. A number of potential intermediary patterns are discussed in subsequent paragraphs; they are variously appropriate for different countries. For the Bank to use them effectively as channels for assistance to the lower end of the enterprise scale will require considerable changes in our past practices and criteria; these too are discussed below.

Encouraging DFCs to Stress Labor Absorptive Technology in their Projects

4.03 One initial means of increasing the impact of Bank lending on the non-farm employment problem is to seek a widespread shift of emphasis, on the part of the numerous DFCs with which the Bank already has a relationship, toward (a) favoring more labor-intensive technologies where feasible and (b) assisting smaller enterprises. While a general exhortation to this effect may be appropriate (para. 4.09), we should concentrate our persuasive efforts, at the same time, on DFCs in countries where unemployment is an acute problem and/or on DFCs that have shown a relatively high degree of flexibility and innovative capability. Ideas and examples from these latter can be fed back into the worldwide DFC information network with a view to stimulating institutions in other countries.

4.04 Most DFCs now associated with the Bank Group provide long-term credit to medium-sized enterprises, as distinct from small firms, and usually get involved in project scrutiny at a time when the sponsoring entrepreneur has reached a fiarly firm decision as to which machinery and equipment he wants. The DFC obtains evidence, for all orders involving substantial amounts, that alternative procurement has been considered (three "international shopping"bids are usually required) but it normally accepts the sponsor's choice of equipment unless the engineering and financial implications, or the economic return calculations, raise substantial questions.

4.05 Seldom is timely consideration given by the DFCs to more labor-intensive alternatives. Most of them are insufficiently aware of, and oriented toward, such alternatives, or are not involved in projects early enough to introduce them. Bank-DFC dialogues in the recent past have consistently stressed the need for DFCs to anticipate investment needs, through sector surveys, feasibility studies and promotion of enterprises; but in these dialogues the subject of labor intensity has not been stressed.1/ Indeed, if the subproject information provided by Bank-financed DFCs is a reliable guide, employment considerations have had little weight in project planning. A large sample from the subprojects submitted during FY 1975 shows that few DFCs provide employment estimates distinguishing between skilled and unskilled workers. About one-fourth of the appraisals for "A" projects -- i.e. large projects above the "free limit" -- contained no information whatever on employment effects; and for "B" projects below the free limit employment information was even sparser. In fairness, the Bank has never asked DFCs systematically to provide such employment data.

4.06 This comment is not intended to impute blame, but rather to establish a starting point in a process to heighten the DFCs' awareness of more labor-intensive options. 2/ The Bank can play a role in this process and three proposals are presented in this regard.

4.07 First, mechanisms should be created or strengthened, in the respective LDCs, whereby DFCs (and their clients) could be informed about the availability of "adequate" technology for both production and product design as it applies to an individual project under consideration. Such information may be available in the country from trade associations, technology institutes, universities and productivity centers. Where such institutions are inadequate the Bank can help, as in Colombia where the sixth financiera loan included a $5 million technology component;3/ other examples exist in Bank projects in Israel and Brazil. Although it is too early to label these programs as "successful", the concept seems sound and the Bank should continue to pursue it, stressing the technological feed-in to DFC lending.

4.08 There is also need to enable DFCs (and their clients) to gain access to the whole range of technological information4/ in other countries, both

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1/ Incidentally, to promote the employment effect of industrial imports credits, there is also a need to develop guidelines to focus attention on employment considerations in the allocation of materials under such credits.

2/ The Bank's 1973 industrial sector-mission to Iran identified several projects where different designs would have been more economical and labor-intensive as well as financially more attractive.

3/ Even there the focus has been on increasing the international competitiveness of Colombian medium-sized enterprises without explicit reference to employment considerations.

4/ There is no hard evidence to suggest alternative production and product design have deliberately been neglected; but DFCs have frequently asked: How can we get information about technological alternatives?" Furthermore, the work of several scholars and institutions suggests that certain sub-sectors are particularly susceptible to different design possibilities.

LDCs with similar resource endowments and industrialized nations. A number of agencies with experience in LDCs have been providing such information, on a limited scale, for some time. However, there is scope for making it more readily and widely accessible, for tailoring individual responses more specially to the needs of DFC sub-borrowers, and thereby for encouraging a more ample and efficient interchange of available information on appropriate technology. Preliminary discussions have been instituted with several of these agencies, with regard to the possibility of their providing a "technological referral service" for DFCs, and the potential of other institutions in this regard will be explored in the near future. At this stage, it is proposed that the Bank agree in principle to fund the establishment of a technology referral service for DFCs and their clients -- for two years, with an outlay of about $50,000 per year. This would finance responses to about 1,000 inquiries per year; for expensive inquiries on complex subject, the Bank would pay only the first $75, the DFC or client bearing the remaining cost. The aim is that after a two-year period this technology service would become self-supporting. This proposal is detailed in Annex 3.

4.09 We recommend also that "active" DFCs -- i.e. those currently committing Bank funds -- be sent a letter (copied to their Governments) from the President of the Bank (i) setting forth the Bank's interest in SSE development, including its concern to involve poor people more directly, (ii) emphasizing the importance of labor-intensive options in product design and production processes, whether for small or large projects, (iii) inviting them to make use of the "technology referral service" described above, and (iv) asking them to communicate their suggestions and/or work programs concerning SSE and labor intensive projects to their Governments and to the Bank. This could carry considerable weight in influencing DFC attitudes and encouraging more vigorous exploration of labor-intensive options. A draft is attached as Annex 4.

4.10 A caveat must be noted: while most of the DFCs with which the Bank has been associated could probably change the mix of their lending significantly to give greater emphasis to medium scale, more labor-intensive projects, it is unlikely that many of them could undertake a program of lending to genuine SSE on a broad front. Such activity is fraught with problems and risks, which a conventional DFC may be ill-equipped to assess or assume. Costs of credit administration, for a multitude of small loans, are inevitably high; collateral is limited and often of a kind that is hard to attach in case of default; borrowers are likely to be only marginally solvent, to lack business experience and to have a greater propensity to failure than those higher in the economic scale. The techniques of project appraisal which the Bank has evolved and inculcated into its DFC clients over the years are too elaborate for very small projects. The quality of loan decisions is likely to depend on such things as the borrower's reputation and references, the community and family environment, the characteristics of the micromarket of the small town or the urban neighborhood -- for assessing which local knowledge and shrewd judgment are likely to be more helpful than systematic technical or financial analysis. It may, therefore, often be more appropriate to look to new, differently organized entities as the principal channels for SSE financing (see paras. 4.18 ff.)

Widening the Scope of DFCs' Activity

4.11 Without trying to reach the bottom of the enterprise scale, however, established DFCs might advantageously widen the range of purposes for which they make loans or investments. Most DFCs that have been financed by the Bank in the past have deliberately limited themselves to manufacturing industry and, in a few cases, hotel projects. Other kinds of productive activity, some offering greater promise of employment creation relative to investment cost than large and medium scale manufacturing, and which could benefit from DFC financing include -

(a) construction, especially the financing of contractors' equipment;

(b) transportation -- bus and trucking services, taxis and jitneys, ships and airplanes for domestic feeder lines, maintenance facilities, etc.;

(c) warehousing and distribution-- regional and local depots for grain collection and storage, fertilizer and building materials distribution;

(d) fisheries--vessels, gear, ice plants, refrigerated transport, etc.;

(e) forestry-- extraction and transport equipment, as well as sawmills and processing of resin and other forest extracts;

(f) maintenance and repair facilities--garages, machine shops; and

(g) organizer services-- eg. garbage and trash collection and building maintenance in the cities, contract plowing, spraying or well-drilling in commercial agricultural areas.

4.12 Some Bank projects, approved in the past year or two, have begun to penetrate certain sectors apart from the manufacturing mainstream. 1/ In most cases, this has involved the formulation of a project and use of a separate institution focussed specifically on the sector in question. Such an approach may sometimes be necessary or prudent, given special sector characteristics and conditions with which a general-purpose DFC may not be familiar. Nonetheless, it may be easier for an established DFC, once it becomes aware of opportunities and needs in a new functional area, to employ the requisite expertise and develop appropriate lending criteria, than it would be to build up a new institution from scratch. It may also be easier and advantageous for the Bank, in developing programs or encouraging lending operations in new fields, to deal with an institution whose capabilities it knows, rather than to have to work out a wholly new relationship. Finally, there may well be administrative economies and intersectoral linkages which a DFC interested and active in several fields could exploit more effectively than a single-purpose institution.

4.13 The complex interdependence of agribusiness with the various aspects of rural development is a case in point. A modernizing, increasingly commercial agriculture requires a more and more sophisticated processing, storage and

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1/ The SSE operations in Cameroon and Ivory Coast assist a broad spectrum of enterprises, including bakeries, metal workshops, barbers, transport operators and automobile repair facilities. The BHC in Ghana finances equipment for civil works contractors.

distribution network, to handle both inputs and output. These facilities, expecially when they can be tied into effective cooperative organizations, can help to reinforce and guarantee agricultural credits to the producer as well as financing for the middleman/cooperative. The possibilities for developing such interlocking, mutually reinforcing systems have been explored and exploited only to a limited extent, mostly as pilot schemes. The Bank should vigorously promote their practical application. Furthermore, to promote the development of these linkages, a useful area for a DPS study would be to investigate, in the light of experience, which types of manufacturing/service activities could be tested advantageously in rural areas, to help reduce the migration to metropolitan centers.

4.14 Linkages between the construction industry and various sectors in which the Bank is very active -- notably urban development, transportation (especially roads), irrigation, water supply and (to a somewhat lesser extent) power, telecommunications and industry -- are equally significant. Repeatedly the Bank has emphasized the importance for economic development of building up domestic capability to undertake increasingly large and complex construction projects; and in a number of developing countries this capability has increased to the point where their contractors are internationally competitive. But for most civil works, except especially ambitious and complicated ones, locally-based contractors should normally have comparative advantage and produce a good return to the national economy. Expansion of construction activity utilizing domestic inputs to the maximum extent, and stressing relatively small and dispersed projects, is probably the surest way means of creating additional employment quickly. Thus it deserves full attention and encouragement from the Bank. So far such attention has been largely confined to highway, recently to urban development,projects. More comprehensive, aggressive promotion of the construction industry is called for.

4.15 Thus there appears to be scope for DFCs in many countries to consider extending their developmental role into new fields of activity. "Consider" is an important qualification, for the case for diversifying is by no means universally persuasive, or positive. A DFC that embarks on a variety of "innovative" schemes, without adequate knowledge of the activities or consideration of the risks involved, may eventually contribute less to the country's development, and to creation of employment, than a company that sticks to its past, financing large/medium industries competently and efficiently. And lending for some of the activities listed in paragraph 4.11 does indeed entail special risks. For example:

(a) problems of security -- protection from theft or damage, and the potential difficulty of finding the collateral in case of default, when mobile equipment for transportation, construction, fishing, or logging is financed;

(b) the seasonality of trade in agricultural produce and inputs, the sharp price fluctuations and losses from spoilage, which could threaten the solvency of warehousing and distribution enterprises;

(c) the marginal and highly competitive character of service trades, and the relative paucity and footlooseness of equipment used in urban sanitation and maintenance services -- which enhances their employment effect but reduces the effective collateral.

DFCs that emerge from the financing of fixed assets in manufacturing industry into such more volatile activities should be fully aware of these and other risks, differing from country to country; but often potential profits would outweigh the risks. The Bank should selectively encourage a more promotional role on the part of its clients, discussing with each the potential and problems inherent in different sectors in the specific country situation, and assisting them in judicious modification of their policy statements, lending/investment criteria, procedures and staffing.

Other Institutional Designs

4.16 Most of the institutions through which the Bank has been channelling funds to medium-sized enterprises in the past have specialized in the provision of long-term credit, although a few have also done a fair amount of underwriting and investing. Correspondingly, their liabilities consist essentially of long-term and medium-term resources. In recent years, however, the spectrum of institutions assisted by the Bank has been broadened considerably, largely as a result of the 1968 policy change which gave the Bank flexibility to assist government-controlled institutions as well. Over three-fourths of the institutions assisted since then have been government-controlled.

4.17 The spectrum of institutions assisted now includes commercial cum investment banks with a high volume of short-term lending (Korea, Pakistan, Philippines, Egypt) and in one case (Botswana) a government-owned holding company. There are special purpose DFCs which are expected to concentrate on the promotion and finance of smaller enterprises, as well as multi-purpose institutions at the apex of their country's economy (Korea, Philippines, Egypt, India, Turkey) all with assets of over $1 billion, averaging 750 professional staff and annual approvals of $250 million.

4.18 The Bank has thus shown considerable flexibility in the choice of intermediaries. However, the institutional spectrum will need to be broadened even further if the Bank is to be responsive to the needs described earlier. In view of the riskiness and administrative costs of small enterprise finance, government-controlled institutions will have to be emphasized, since they are not usually expected to reward shareholders in the same degree as private institutions do. At the same time, however, there are interesting possibilities of working with commercial banks, municipal development institutions, workers' banks, investment/promotion institutions, credit unions, savings and loan institutions, and holding companies.

4.19 Commercial Banks. Commercial banks, in particular, could be promising intermediaries. They usually have a wide network of branch offices which are more aware of, and responsive to, the needs of individual enterprises for credit, business advice and supervision than the more centralized DFCs. Furthermore, given that many small enterprises primarily require working capital, commercial banks could effectively combine their own short-term funds with longer-term finance obtained from the Bank. 1/

1/ This calls for a synchronization of credit terms, since it is not unusual to find that short-term interest rates are significantly higher than long-term rates.

4.20 Commercial banks, being commercial, are reputedly uninterested in financing small entrepreneurs in view of the costs and risks involved. This has been largely true, although there are exceptions. (The archetypal exception is the embryonic Bank of America -- whose founder, A.P. Giannini, is said to have set up a streetcorner stand the day after the San Francisco earthquake to make loans to help small businesses reestablish themselves, and to have toured the countryside by horse and buggy offering credit to small vegetable and fruit farmers -- which went on to become the world's largest commercial bank.) Barclay's Bank has established a development fund that has benefited many single-man firms,particularly in Africa; in such countries as Nigeria and Ghana they have an extensive branch network, and their assistance to small enterprises through credit and business/ technical advice involves a commitment to promotional work that most of the Bank's DFC clients cannot match. They and other commercial bankers have tentatively expressed an interest in collaborating with the Bank, either as direct channels for Bank funding to small enterprises or through a collaboration with Bank-assisted DFCs, whereby the DFC would meet the longer-term needs of enterprises, including equity capital, and the commercial banks would supply short-term working capital.

4.21 While the long term advantages of building up a small enterprise clientele may be considerable, the short run difficulties are formidable -- and most commercial bankers tend to think in the short run. Hence, as a practical matter, it seems doubtful that commercial banks in most countries would make a major effort, on their own initiative, for the promotion and financing of SSE -- a small exertion, perhaps for public relations purposes, but nor a real commitment of their resources and energies. 1/ To obtain the latter would normally require compulsion or special incentives, either or both supplied by the government as the result of a policy decision in favor of SSE. In some countries the government requires that X percent of the commercial banks' resources be allocated to the SSE sector, as locally defined. In others, cheap money has been made available to the commercial banks for such purposes. Generally in these programs the government guarantees the banks, in major part, against loss. Preliminary indications are that a combination of ready access on favorable terms to government (or central bank) resources, plus a guarantee covering 50% or more of the risk of defaults, should in most cases be a sufficient inducement for commercial banks to seek SSE business. Part of the repayment risk should remain with the lending banks, to encourage effective supervision and loan collection efforts. 2/

1/ In the increasing number of countries where the commercial banks are largely or entirely government-owned, the picture is not very different in this respect from that where the banks are still under private control. Commercial banks, privately or publicly owned, are expected to remain solvent, to retain their depositors' confidence, and this institutional rationale gives them, as it should, considerable ability to resist government pressures to undertake risky or unprofitable business.

2/ Commercial banks may, in fact, be more effective at loan collection than DFCs, since (a) they often have a stronger tradition of enforcing repayment and (b) their clients frequently have to come back at short intervals for additional laons or renewals, whereas the DFC client may need no further long-term funding for 5-10 years.

4.22 Investment Companies. In its DFC work, particularly for smaller enterprises, the Bank should pay increasing attention to the provision of seed capital. This suggests the importance of assisting suitable investment institutions and holding companies. In the Bank's experience, government-controlled DFCs have generally been more active in this respect 1/, but over a longer history and wider range private enterprise has prided itself on promotional capability and success, and its potential should not be neglected, in countries where the policy environment is favorable

4.23 The promotion of funding for seed capital will often be a critical determinant for a sound capital structure, without which the enterprises assisted could not obtain institutional credit. Government support in India has made possible the establishment of seed capital facilities at the state level (through the SFC Special Capital Fund) and at the national level (through IFCI's Risk Capital Foundation). But the Bank can also help on occasion to increase the flow of equity capital. The recent sixth loan to the Colombian Financieras included a $5 million component which incorporated features making it more attractive for the financieras to assist enterprises through equity investments.

4.24 Other Financial Institutions. The Bank Group is just beginning to explore actively the establishment of operating relationships with mass-oriented intermediaries such as municipal development banks, workers' banks, savings and loan institutions, and credit unions. 2/ Their ultimate potential as effective channels of finance to the lower end of the enterprise and income scale is very promising. In countries where they are effective and flourishing they have, almost by definition, a broad-based and loyal clientele. They are accessible to the small borrower and better able than larger, more remote institutions to assess his needs and merits, to keep track of his use of the loan and his business performance, and to give advice when necessary. Sometimes they can obtain collective guarantees for loans; in any case their relationship to the community helps to reinforce the moral obligation of borrowers to repay. They facilitate and encourage popular saving.

4.25 Where such intermediaries are unavailable or ineffective it may take a considerable time to get them established and to develop the requisite contacts and confidence within the community they are designed to serve. This process may perhaps be accelerated in the context of integrated urban development projects which focus the common interest and encourage group activity in other related areas, and where the project management can give organizing impetus and guidance. The local entity so incubated might then become a nucleus and model for a wider network. Such an approach does not exclude efforts also to organize on a broader scale from the start, where conditions are propitious. In the latter case an apex institution or a central bank would have to be assigned the dual functions of providing rediscounting facilities for the local intermediaries and of supervising and upgrading those intermediaries.

1/ In four countries where the Bank has assisted both wholly government-owned and private DFCs, the former showed a much higher propensity to undertake equity investments. Their average share of equity investments in long-term portfolios was about 18%, compared to only 8% for private DFCs.

2/ Such institutions are likely to be intermediaries in Bank projects planned for Colombia, the Philippines, El Salvador and Pakistan.

4.26 Channels for Housing Finance. Financing of housing and home improvement is among the most promising means to further the objectives of employment creation and greater welfare of the urban poor. House construction, especially in the circumstances of most LDCs, is itself highly labor intensive and many of the industries which supply its needs also have low cost/job ratios. Often, much of the investment can be in the form of labor, by the householder and his family or helpful neighbors, if the requirements for materials and limited amounts of skilled labor can be met. And the benefits in terms of improved health conditions, physical comfort and morale are demonstrably substantial.

4.27 So far the Bank has done no lending in this field, except in the context of site-specific urban development projects, where the direct impact, as regards housing finance, is restricted by the small area affected; furthermore, such projects have limited demonstration effect, since the institutional/managerial framework of a particular urban development scheme cannot readily be replicated on a large scale. Given the extremely important role that small scale construction activity must play in any major effort to expand job opportunities for the urban poor, it seems appropriate for the Bank to consider seriously possibilities for attacking the housing finance problem on a broader front.1/ Circumspection is still called for, however. Housing demand is virtually insatiable; most of the costs are local, and domestic resources for this purpose are generally very limited; design and construction standards are often in controversy (with a typical tendency to specify standards too costly for those most in need; the supply of urban land and services tends to be skewed in favor of upper-income groups; and institutional structures, both technical and financial, are generally weak.

4.28 It is recommended therefore that the Bank seek, over the next 1-2 years, to identify and prepare projects in perhaps three countries which in each case

(a) could serve as the nucleus for a generalized program for financing housing construction and improvement, primarily to benefit the lower 40 percent income level;

(b) would stress home improvement, or new construction to minimum acceptable standards, associated with a maximum self-help effort;

(c) would provide for technical advice and assistance in choice of design and construction materials; and

(d) would contain a strong promotional effort and incentives to mobilize popular savings.

1/ The Bank's Sector Policy Paper on Housing (May 1975) makes three recommendations: (i) squatter upgrading and sites and services projects should continue as prime instruments for Bank housing assistance to the urban poor; (ii) only a small proportion of Bank assistance should be for conventional housing; and (iii) the Bank should provide "seed capital" for housing finance institutions to promote better housing for all income groups. We support these recommendations, and especially advocate more vigorous action in relation to the last one.

While one or more of the Bank-financed DFCs might be an appropriate channel, such projects would have to be dealt with by a separate unit having special procedures and financial resources, in view of the very different criteria from those involved in industrial lending. In most cases a special purpose housing finance institution would be the more suitable intermediary.

4.29 Savings Accretion and Mobilization. In undertaking or expanding programs to assist the poor through access to credit for SSE, for home improvements or for other purposes, due attention should be paid to the potential of such programs for helping to increase the amount and facilitate the mobilization, as well as improve the allocation, of savings. As was suggested earlier, small entrepreneurs apparently have a high propensity to save as their earnings rise above minimum consumption requirements. They will be increasingly motivated to do so if there is a realistic prospect of their being able to supplement their own accumulation of resources with credit on reasonable terms, in order to make a desired investment with good profit potential. If, then, a small entrepreneur is enabled through such credit to increase his productivity and earnings, it is likely that a substantial part of the increment would in turn be saved -- and perhaps deposited in the same neighborhood lending institution, further reinforcing community linkages. In some cases it may be appropriate for people's lending institutions to give preference in the extension of credit -- e.g. for housing or home improvement to those tho have deposited or are currently depositing a specified minimum amount. This, again, would provide an added incentive for savings and a means to their efficient mobilization. A lottery feature to allocate loans for standard purposes in high demand (housing, transport vehicles) may also increase the incentive for deposits.

4.30 Pawnbrokers and Money-lenders play a significant role at the margin even in the most prosperous, sophisticated economies, and in the LDCs these traditional sources of credit are still more the ultimate resort of a large portion of the population.1/ It will be a considerable time before the organized intermediaries will replace them. Is it possible to make use of them -- of their shrewd knowledge of the urban neighborhood and clientele -- while at the same time mitigating substantially their usurious interest charges? These charges no doubt reflect avarice, in large measure, but also the high cost of money to the money-lenders themselves, the high risk factor and, of course, the inadequacy of organized competition. Pending the effective functioning of such competition, it may be that a moderate loosening of unduly restrictive interest limits, often easily evaded due to lax enforcement and clients' need, might result in more credit, more competition and lower effective interest charges to marginal borrowers. These conjectures -- for there does not seem to be much solid evidence as yet -- could perhaps best be tested, also within a structured urban development project.

4.31 A project by which the Bank would directly channel credit to a host of small money shops -- their objects and criteria of lending inevitably ill- or undefined -- would be hard to justify or administer. But we must recognize that the curb-market plays an important role in the survival and

1/ During the mid-sixties, the Korean Government fought a hard battle to drive money-lenders out of business. For a while it seemed that the Government would win, but the curb-market rebounded and is now alive and well, more so than before.

perhaps the development of urban communities -- a role that is the subject of a current CPS study. As suggested above, it should also be studied in operational contexts. And the possibilities that commercial bank intermediaries might be allowed to apply some part of an IBRD loan for SSE to finance neighborhood pawnbrokers/money-lenders should not be excluded out of hand.

Additional Types of Finance

4.32 Working Capital. A major problem, for SSE in particular, is to obtain adequate and timely access to working capital finance. Comparative statistics for Colombia showed working capital as constituting 74% of project cost for small enterprises, 18% for medium/large firms. Moreover, where working capital finance permits fuller utilization of existing capacity, as against further physical investment, use of resources is more efficient and new jobs are created at minimal cost. The Bank has permitted the use of its funds under DFC loans only for acquisition of fixed assets and for "permanent" working capital (i.e., the initial working capital stock, plus increases from time to time as the borrower's business base expands). DFCs financed by the Bank generally follow the same rule in lending their own funds. This is sound and prudent practice for institutions whose role is to finance investment, and no shift by DFCs to indiscriminate financing of such needs is recommended. They should be met through commercial banks or other short-term lenders.

4.33 But SSEs are usually at a big disadvantage for obtaining short-term loans on reasonable terms. They have a limited permanent capital base, but often widely fluctuating (in relative terms) temporary requirements -- whereas larger enterprises, having more substantial permanent capital, are likely to get a better reception from commercial banks when they seek (relatively) smaller short-term accommodation. In the preparation or appraisal of projects intended to improve opportunities for SSE, therefore, the Bank should seek explicitly to ensure that adequate access is provided to working capital finance -- both of a permanent and of a temporary, fluctuating character--for smaller enterprises. One means of doing so would be to institutionalize collaboration between DFCs and commercial banks, for joint assessment of the needs of individual SSE projects --and an agreed division of responsibility for meeting them--with periodic joint review of the situation to permit adjustments or, in case of difficulties, coordinated remedial action. Alternatively, where commercial or mixed banks are encouraged and assisted to undertake a developmental role (see para. 4.20) they could fulfill and coordinate both aspects of the financing requirement in a single entity--presumably in separate operating departments. Similarly, DFCs on the conventional model could consider opening a window for short term working capital finance--with appropriate differentiation of resources, accounts and procedures--to provide the same full service. The Bank, while continuing to earmark its funds primarily for acquisition of fixed assets, should be prepared to extend its eligibility criteria, subject to specific justification, to include certain priority needs of shorter term--e.g., the funding of payroll and raw material requirements for a second or third production shift, in the expectation that, if the market for its output holds up, this increment would become "permanent" working capital.

4.34 Local Currency. The use of Bank financing through DFCs has also typically been limited to the cost of imported goods and services, frequently defined to include the estimated import content of locally purchased goods. 1/ This restriction is consistentwith the Bank's normal policy and, since Bank financing usually covers no more than 50% of a DFC's total commitments, it can reasonably be assumed that local currency requirements for subprojects will be met from the share financed by the sponsors or from the DFC's own resources. But for labor-intensive and SSE projects it is logical to expect that, on average, the incidence of imported machinery and raw materials will be lower than for those of larger firms. The reasons are four-fold. First, SSEs often operate in sectors where economies of scale are not significant, and hence use more traditional, domestically developed technologies. Second, small firms often produce for local markets in urban neighborhoods and rural areas which do not require sophisticated technology in manufacturing. 2/ Third, since access to capital is usually more difficult for small firms, factor price trade-offs lead them to invest in domestic/labor-intensive rather than imported/capital-intensive, equipment. Finally, import licensing regulations are cumbersome in many countries; the small entrepreneur often lacks the know-how and patience to work through them and will prefer to buy "off the shelf".

4.35 These assumptions are borne out by the Bank's experience to date with countries where intermediaries catering to both small abd larger enterprises have been assisted. In Colombia, the import content in fixed investment was 24% and 45% for small and medium firms, respectively. In India, the corresponding figures are 16% and 35%. More generally, an analysis of direct import content on the basis of different project sizes suggests that there is a strong positive correlation between import propensity and scale of manufacturing. 3/ Although no data were available on the informal sector, it is likely that the direct import component may be zero in many cases.

4.36 Moreover, to the extent that domestic industries which could supply machinery and equipment at a price and quality comparable to imports are excluded from competition, the indirect employment which these industries

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1/ Small local currency components have been explicitly included in only two cases (Tunisia and Liberia); it is also recommended for a forthcoming operation in Sierra Leone.

2/ This factor is important in explaining the significant differences which IDA observed in lending to the 18 SFCs in India. SSE located in backward areas apparently had much lower import requirements than those in the more developed states.

3/ This is borne out by a logarithmic regression analysis of recent DFC subprojects of different sizes (for details see Annex 1).

might generate is reduced; this seems to have occurred in some cases in Korea in 1973-75. These consequences may have only marginal significance at present but will tend to increase with the changing magnitude and emphasis of Bank programs and the expansion of domestic industrial capacity. And the psychological effect of exclusion of domestic suppliers certainly runs counter to the attitudes in favor of employment creation which the Bank is seeking to foster. For all these reasons, and subject to explicit justification, the Bank should be prepared to consider local cost financing in specific SSE cases, particularly in the informal sector, where the required loan amount may be considerably in excess of the total (direct and indirect) import component.

4.37 The formula applied in the DFC loan to Colombia in 1975, for developing small and medium industries, may be utilized to advantage in other projects for this purpose. Under that loan the Bank disburses 90% of the cost of locally procured goods and services, as well as 100% of documented direct imports in the sub-projects financed from the loan; this is estimated to be slightly less than the foreign exchange content of the total project cost (not just the Bank financed portion); nearly half of this total cost is financed from Colombian sources.

4.38 Substitutes for Collateral. Most non-conventional financing techniques are attempts to overcome the lack of collateral available to small enterprises to satisfy the requirements of the formal credit institutions.1/ Actually, some institutions (for instance BOA in Egypt) have gone so far as to require no collateral from small enterprises, relying only on an honor code, enforced by the socio-ethical environment in which they operate to induce repayment by their clients; so far their faith has been justified, but such confidence does not exist everywhere. In any case, for many types of small enterprises the prospective cash flow is a more reliable safeguard of the loan's being covered than conventional collateral. Another means of meeting (or avoiding)the problem may be hire purchase arrangements; NSIC in India and, again, BOA in Egypt have been utilizing this technique. Another is to develop new forms of collateral such as life insurance certificates, or cooperative guarantees.

4.39 In many countries a government guarantee scheme may be necessary to enable SSE to gain access to credit. In India assistance to small enterprises by state development banks and commercial banks has increased several-fold, following the introduction of a credit guarantee scheme administered by the Central Bank on behalf of the Government. 2/ In Nigeria,

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1/ One of the reasons why many small enterprises resort to high-cost borrowings from the curb market is that whatever collateral they have had was preempted by institutions from which they had borrowed previously. The formal credit institutions quite usually require collateral with a multiple value loan amount.

2/ Since the start of the scheme in 1960, guarantees outstanding have rapidly increased, reaching over $2 billion at the end of 1974. The Scheme was enlarged in 1970, and again in 1974, and over 200 institutions make use of it to cover credit risks related to working capital and term loans, letters of credit and guarantees. More recently, the Scheme was extended to cover industrial cooperatives which will increase the flow of institutional credit to a large number of handloom, powerloom and cottage industry societies.

on the other hand, a similar scheme has apparently not worked well. Studies of the experience of such guarantee schemes in different countries to try to identify the factors affecting their success --inter alia, it is important that they reduce but not wholly eliminate risks, to encourage efficient capital allocation and collection efforts--should be given priority, since guarantee schemes are likely to be vital for integrating the delivery of technical assistance and credit to SSE (see Chapter VI).

4.40 Leasing and factoring are further techniques which a priori offer potential for assisting SSE. The Korean Development Finance Company has established a subsidiary which provides leasing services -- so far, however, to medium-sized companies only. But this type of finance, particularly for agribusiness projects, should be useful for aiding small enterprises as well. Similarly, factoring (i.e., discounting against cash the accounts receivable by enterprises) could fill a vacuum, although its use requires considerable sophistication on the borrower's part if he is to avoid being exploited. A frequently heard complaint by small (and medium-sized) enterprises relates to their difficulties in collecting accounts receivable. Although commercial banks in many countries are used to lending against such accounts as collateral, factoring is hardly known in developing countries. Some of the mature DFCs associated with the Bank might consider establishing a subsidiary for leasing operations, and study the more complex issues involved in factoring.

Programs with More Direct Poverty Impacts

4.41 The Bank's past industrial activities have generally had only an indirect poverty impact, toward creating non-farm employment for unskilled workers. A more direct contribution to this end might be sought through

(a) sub-contracting to SSE;

(b) institutional procurement favoring SSE;

(c) cooperative development;

(d) assistance to cottage/handicraft industries; and

(e) integrated programs for urban/rural development.

4.42 Subcontracting. In most countries the tendency in industrial development has been for large, integrated industries to displace the traditional small fabricators. The latter, while not technically or financially capable of manufacturing complex finished products might well be able to supply relatively simple components for the final product, if they were permitted and assisted to do so. That they are not so enabled is the result of a combination of factors: the primitive techniques, low quality and lack of capital in the SSE sector; the desire, on the part of larger firms, to control quality, deliveries and prices; advantageous rates of interest and foreign exchange for the large enterprises, which have subsidized their investments to substitute for SSE capacity; and the absence of effective measures to remedy SSEs' deficiencies and encourage their use. Some countries, however, have avoided or overcome these problems. The outstanding case is Japan. There a symbiotic relationship has developed, by which some 60% of the small and medium manufacturing firms are engaged in sub-contracting for

larger corporate customers. Such a relationship requires inter alia, a combination of trust, recognized technical standards and enforceable contracts to ensure that the components would be of acceptable quality and delivered on time, and means of preventing price gouging by either party. The difficulties of establishing such conditions are great -- technically, institutionally and psychologically -- but the socio-economic advantages of developing a collaborative, mutually advantageous relationship between large and small enterprises should inspire the most diligent efforts to that end, with the Bank's vigorous support.

4.43 Institutional Procurement. The possibilities of promoting SSE through procurement, by public or private agencies, for such items as hospital beds, office furniture, school equipment and hand tools have been explored by the Bank to a limited extent.1/ Recently, however, attempts to foster SSE through large official orders were made in Kenya (rural feeder roads project), where the aim was to purchase simple earth moving tools (shovels, picks) from SSE; however, an effective organization to locate and assist SSE was lacking and the project, in the end, only benefits medium-sized firms. Nevertheless, some conclusions can be drawn -- namely, that for small firms to obtain large orders they need:

(a) a mechanism to become aware of tender notices;

(b) engineering designs amenable to easy repair;

(c) a flexible production set-up that permits design modification; and

(d) effective marketing/distribution outlets.

Thus, apart from a receptive attitude and procurement procedures, there will usually be need for technical assistance to SSE with respect to these matters. (Technical assistance is discussed more fully in the next chapter.) Firms of medium-size and at the upper range of SSE may often be able to fulfill the above requirements on their own (as they did in Kenya), but very small companies will have to form groups, ad hoc or permanent cooperatives, in order to deal with large orders.

4.44 Cooperatives. The Bank has had considerable experience with rural cooperatives, but little with cooperatives in urban/industrial activity. Potentially, however, the latter could serve a vital function in assisting the urban poor as a target group, as a source of initiative, as a security and collection mechanism for credits, as a delivery system for technical assistance. Among low income groups, where individual economic power is extremely weak, some form of cooperative enterprise and reinforcement is almost indispensable to the groups' progressing in relation to society as a whole. To the extent that cooperatives develop in the urban environment, however, they may establish mutually advantageous links with a cooperatively organized rural production and distribution system -- as an alternative and

1/ Apart from Bank experience, a number of countries systematically direct part of government procurement to SSE. In India, for instance, 192 product-types are reserved for exclusive purchase from small enterprises. By 1973 21,000 SSEs had participated in the "Government Stores Purchase Program", but total procurement from SSE amounted to only 6% of total purchase value.

competitor to the traditional middleman.

4.45. Many types of small scale economic activity have been organized successfully as primary cooperatives, where small shop keepers or home-workers are members of a production-oriented (rather than a joint facility) cooperative. The members are usually in the lower income range. For example, South India's "beedie"-production (rolling leaves into the "poor man's cigarette") is organized on a cooperative basis, performed by women in their homes. A substantial part of spinning/weaving production in many countries comes from small cooperatives. The Mahawarbal Development Corporation (MDC) developed a program to ease the severe unemployment in Aurangabad, India, that resulted from massive migration of farm-families from drought-stricken areas. MDC put together a training program in weaving (involving both men and women), built a simple house for each family, equipped it with a loom, organized the families into a cooperative society, allowed them to pay off loans through guaranteed income, and purchased and sold the output on behalf of the cooperative. The scheme works well and turnover among the families has been small.

4.46 The Bank is currently sending a mission to India to explore with the several institutions which have had over 20 years experience in assisting industrial and agribusiness cooperatives, possible ways of using such organizations in a broad attack on urban poverty. Cooperative approaches and experiences in most countries, including India, have had quite uneven success. But given the range and variety of the Indian experience, it should afford especially valuable practical insights into potential opportunities and pitfalls, which would have relevance for other countries as well as India. The Bank should also work closely with ILO, the International Cooperative Alliance and experienced national cooperative federations in developed countries, as sources of advice and technical assistance.

4.47 For the Bank to be able to make effective use of cooperative mechanisms as channels for finance and for technical assistance -- and indeed for such mechanisms to have an appreciable impact on the urban poverty problem -- it is clearly not sufficient to develop individual primary cooperatives, however successful they may be. The success stories must be capable of multiple replication into a network of production cooperatives, preferably with varied output. This would entail establishment of secondary cooperatives, whose membership consists of primary cooperative societies. These second tier organizations would perform various services for their member groups: procurement and marketing assistance, technical advice, training of managers, auditing their books, guaranteeing credits, etc. Moreover, government programs for assisting SSE in technological matters may gain added effectiveness from secondary cooperatives' intermediation:

> Secondary cooperatives and cooperative research institutes, because they have an immediate and practical outlet in the form of primary production cooperatives, are in a position to carry out and disseminate 'operational research' in the sense of adapting technological innovations to the best use of available resources in the country. Thus they can be excellent channels for diffusion of appropriate technology and research results relating to production design, manufacture, analysis and testing of materials and products, development of raw materials, fuel and energy problems, location of plants, cost and productivity

studies, market research, labor problems and evaluation of extension services. In many more instances, however, it has been the governments of the developing countries which have made such services available. In practically all developing countries many of these services are provided by cooperative departments of governments. However, where industrial cooperatives have made unusual progress, there usually exist government institutions which extend more specialized technical assistance and advice.1/

4.47 Cottage Industries/Handicrafts. The SSE notion used in this paper includes artisanal/handicraft activities as well as more formally constituted enterprises. There are possibilities, particularly in Africa and Asia (operations in Upper Volta and Nepal are being envisaged) for the Bank to finance and otherwise assist the former activities, through cooperatives or through government agencies for tourism and cultural development. Bank tourism and urban projects should explicitly consider possibilities for developing a project component for cottage industry handicraft activities, especially in areas where a DFC loan would not be a suitable vehicle for this purpose.

4.48 Integrated Programs/Projects. The most effective means of meeting the needs of poor people, in urban and rural areas, will often be through an inter-sectoral approach, with mutually reinforcing project components. The recent joint mission to the Ivory Coast, by the Urban Projects and DFC Departments, is working out an integrated program of urban development with housing and credit components. A Philippine urban project under appraisal comprises still more diverse, inter-related elements. A potential SSE project in Upper Volta includes components for agricultural artisans, housing material supplies, and the financing of quarries, road equipment and local housing contractors. A regional study planned for Indonesia envisages a complex integrated program involving an urban area and adjoining rural districts, including elements from virtually every sector of socio-economic development.

4.50 The major problem with such elaborately integrated projects is their complexity, in both conception and administration. Coordination of all the different disciplines. Time horizons and bureaucratic interests involved, within the Bank and in the project management, can be extraordinarily difficult. But this complexity, this difficulty of coordination and reconciliation of interests, is a reflection of the intricacies of social organization and relationships, of community realities; and an approach that is based on and makes use of these ralities has a validity and appeal that more simplistic conceptions lack. Appropriate intermediary institutions, financial and otherwise, will be vital to provide continuous and flexible linkages among the diverse elements of an integrated project.

1/ Leonora Stettner, "Industrial Cooperatives in Developing Countries," ICA, London, pp. 32-33.

V. DELIVERY OF TECHNICAL ASSISTANCE FOR SSE

5.01 Introduction. In DFC operations technical assistance (TA) has typically taken the form of institution-building support for the financial intermediary, primarily designed to put it on a sound footing to sustain itself and to mobilize and allocate resources efficiently. This kind of institutional support will continue to be needed as the Bank's present DFC borrowers broaden their clientele and move into some of the "unconventional" programs discussed in the previous chapter. New institutions catering especially to SSE will doubtless need business, financial and technical advice even more, since experience suggests that intermediaries for SSE are often almost as weak as their clients in technical and business know-how.

5.02 For instance, the Regional Industrial Technical Assistance (RITA) program supported by USAID in the 1960s in Northeast Brazil attempted to create rural, labor-intensive SSE with broad community involvement. A recent evaluation 1/ of this program reveals that major problem areas (even though the enterprises turned out to be larger than was originally planned) have been simple forward planning, basic accounting, financial management and marketing, in particular the development of distribution outlets. The RITA intermediary has apparently been unable to correct these deficiencies satisfactorily.

5.03 This chapter focusses mainly, therefore, on needs and means for providing technical assistance to SSE, whether through financial intermediaries or through other channels. We shall examine various delivery mechanisms for TA to small enterprises (some of which are applicable to medium and large firms as well) and for unconventional programs with a potential for a more direct poverty impact. The chapter will conclude with a resume of several private and public TA agencies and their programs.

5.04 The "technical assistance" needs of SSE are diverse, varying from country to country and by subsector and firm size. In general, however, they may be separated into two broad categories: business/management needs and technological engineering needs. Individual small firms require differing mixes as between the two categories, depending on the type of product or services they provide and the extent to which they are "modernized". Informal community-based activities obviously require very different types of TA than enterprises at the upper end of the SSE spectrum. Nevertheless, experience in the Bank has shown that both business and technical advice and training are usually necessary for any broad gauge program of SSE support.

1/ Neil Boyle, The Evaluation of the RITA Project, Northeast Brazil, (draft document), IBRD, February 1976.

5.05 That small scale borrowers have real and extensive TA needs is widely recognized in the Bank. But we have little relevant experience with actual delivery of TA to subborrowers in the SSE category; and several of the SSE programs that can be envisaged now 1/ will be more complex and dispersed than past projects. An essential requisite for their success is to devise ways of meeting the TA needs of these entrepreneurs effectively and at reasonable cost. This does not mean that the Bank should itself meet these needs; to the contrary, collaboration with a local and/or international TA agency will usually be necessary and desirable. But the Bank must give more attention to delivery systems for different types of TA and their integration with Bank efforts to support SSE development. Among such delivery systems that offer promise are the establishment of industrial centers and extension services, building TA into subcontracting relationships, orienting government procurement programs to help SSEs, ensuring the inclusion of TA in industrial estates, and cooperative and other programs aimed directly at assisting poor people.

Delivery Mechanisms

5.06 Industrial Centers and Extension Services. One of the most common ways of delivering technical assistance to SSEs is through static training and counseling centers. These centers usually provide a broad menu of business and technical advice and training, as well as some forms of actual problem solving (repair, maintenance, bookkeeping, etc.). For instance, the Government-supported center for assistance to small and medium size entrepreneurs in Cameroon provides classes in accounting and management, appraises proposed investments for submission to the development bank, performs marketing and engineering studies and design work, provides a central repair facility for entrepreneurs and (for a fee) prescribes bookkeeping and repair programs.

5.07 The major difficulty with such industrial centres is implementation. In the case of Cameroom SSEs--although mainly in urban areas--are nevertheless widely spread through the country. The supporting center is located in the major industrial city, with some branch operations, but cannot easily reach all those who want its services. It thus appears that industrial advisory centers 2/ are appropriate for clusters of small enterprises, mainly in metropolitan areas, but they may serve as a base for mobile teams to cover larger areas.

1/ For a description of likely experimental Bank SSE projects see Chapter VII.

2/ Slightly different in concept from industrial and extension centers are productivity centers, whose function is to demonstrate new and appropriate technologies for production. Although less focussed in day-to-day problem solving, productivity centers can be an effective means of demonstrating and introducing new production techniques. To enhance the effectiveness of such centers, technology funds may be desirable, as in the recent Colombia project (para 4.07).

5.08 For similar reasons, agricultural extension services normally rely on a mobile capability. The key factors in an effective extension service are mobility, familiarity with regional markets and problems, and appropriate staff training. The assistance required by most SSEs (particularly at the lower end of the scale) is of a basic nature. Sophisticated accounting or engineering design is not normally needed, but rather continuing help in overcoming small but signigicant bottlenecks. Hence, an effective extension service will not require highly trained university graduates (whose salary expectations may be excessive) but "nuts and bolts" technicians who have basic engineering skills and can "talk the language" of small entrepreneur. Training programs for such people may be important components in SSE projects or education projects for extension workers. 1/

5.09 Subcontracting. Subcontracting arrangements may prove a very practical and cost effective means of delivering technical assistance to SSEs, as well as of assuring demand for output. Subcontracting can thus be both a system of incentives and a delivery mechanism for TA. For example, in the auto industry in Japan vehicle manufacturers have developed extensive networks of parts suppliers, to whom they provide full technical support ranging from drawings to the design and fabrication of machine fixtures suitable to small scale production. A further benefit to SSEs in such arrangements is reliable provision of uniform quality raw materials at non-usurious costs. For instance, as part of an international relationship, the Japanese prime contractor for an American engine manufacturer provided smaller Japanese firms with scaled down production techniques, detailed instruction for parts production, materials specifications and quality control criteria.

5.10 There are several examples of successful local subcontracting arrangements in which suppliers' technical and managerial difficulties have been overcome with the help of the principal firms. While the most common types of technical aid to subcontractors are advice on appropriate machinery and raw materials, the application of new processes, and blueprints, many contractors in India supply models or samples of the components they require, since subcontractors cannot always read drawings; however, high-precision items usually cannot be manufactured from models. In the mid-1950's, a large US department store--although a retailer and not a manufacturer--began to work

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1/ Among others, ILO, Georgia Tech, CIDA, and the East-West Center have expertise in providing this type of training--e.g., ILO has a special center in Torino (Italy) and Georgia Tech offers a 13-week course for extension workers. The development of programatic teaching material for small entrepreneurs needs to be emphasized. The Industrial Development Bank of Canada, ILO, and the Swedish Employers Confederation have prepared hand-outs to small businessmen on basic managerial and financial planning, but many of them still have to be adapted to be of general use in developing countries. Currently, several institutions (SIDA, UNIDO, and SBA) are reviewing for that purpose the Swedish Employers Confederation's publication "Know Your Business" (mini-version).

with local artisans and other small-scale plants in Latin America to develop products made to specifications, extending technical assistance, materials, equipment, and often pre-production financing. Within six years in Mexico, the company was purchasing from about 1,300 local sources 80 percent of what they produced. Ten years later in Peru, 375 firms, employing 20,000 factory workers, were selling to it. In the People's Republic of China, large factories at the province and county levels assist the smaller job shops at the lower levels through technical advice during site visits.

5.11 In addition to relying on prime contractors to delive TA, it is also possible to foster assistance transfers through industrial training and extension centers, like those suggested in paragraphs 5.07-5.08. Such centers (whether they support a subcontracting scheme in particular or an SSE program in general) can help to solve on-the-spot problems and anticipate production bottlenecks. Moreover, it has been the experience of UNIDO and other UN agencies that the industrial extension center is a natural agency to promote subcontracting relationship. The Bank itself has some experience with such centers in the Philippines and Africa.

5.12 The services needed by subcontractors are likely to be both business- and technically-oriented. Normally the technical problems (assistance in designing dies, tools and fixtures; selection of specialized equipment and setting up procedures for quality control) would be handled on a business-to-business basis, although the extension center should complement this technical support as well as providing broader business advice.

5.13 Projects relating to the establishment of domestic subcontracting exchanges have been executed under the UNIDO Special Industrial Services Programme. One such project, in Turkey, called for the services of an expert to set up a subcontracting exchange in Istanbul. Within a year, the exchange had built up registers of types of products needed, machinery and equipment requirements, and the specialization and production capacities of 400 to 500 potential subcontracting firms. The UNIDO exchange is operated by local counterparts trained by the expert. For a second project in India, foreign experts established similar subcontracting exchanges in Bombay and Madras. They prepared a plan of organization, analyzed financing for each of the exchanges, and advised on operational costs and charges to be made for services. They also trained national counterparts to operate the exchange after the four-months period of UNIDO aid.

5.14 Government Procurement Systems. Large-scale government procurement can provide effective assistance to SSEs through stimulating demand for their products and services and fostering the establishment of TA support mechanisms. The procurement system designed by the Bank for local manufacture and supply of road-building equipment for the Kenyan rural access roads program exemplifies both possibilities and problems. It was necessary for the Ministry of Works to

determine which local firms had the present capability--or sufficient capacity to upgrade its facilities--to supply standardized, quality products manufactured to specifications and delivered on schedule. A Bank survey of existing small industrial establishments eliminated certain categories from consideration. It was found unrealistic, for example, to attempt to upgrade the facilities of small backyard job-shops, using rudimentary tools and techniques and producing small batches generally non-standardized and of poor quality, to a point where they could participate effectively in the government program. Other sugments of local industry, however, were found capable of participating, given some credits for additional tooling. These included some well-equiped, modern factories, with good quality control and standardization for volume production. Also, some small and medium engineering firms were found capable--with some upgrading--of designing and engineering required prototypes and then producing them in volume. One company was identified as having the required combination of marketing, production management, and engineering capabilities (including a technical unit that could respond to tenders issued by government agencies and private organizations), and this firm emerged as a prime contractor in a system which would include other less qualified enterprises. In addition, in order to mobilize technical assistance to subborrowers, a liaison group was established between the Ministry of Works/ Supply Division and Kenyan Industry. The functions of this group were to survey potential procurement sources; to help prepare special Tender Notices for the design and engineering of new prototypes as well as for volume procurement; to work out warranty and maintenance-service aspects of Tender Notices; and to help develop required technical and financial support programs for participating firms.

5.15 The administration of large-scale procurement as well as subcontracting systems for SSE will usually require intermediaries. In the above case, a prime contractor and a liaison group between industry and the government ministry performed this function. In other cases industrial technology extension centers, industrial estates or cooperatives may be suitable. In India, for example, the State Trading Corporation has established a subsidiary dealing with handicrafts and handloom businesses, thus joining export promotion to assistance for SSE development.

5.16 Industrial Estates. One of the virtues of industrial estate development, as pointed out in Chapter III, is the ease of delivery of services to estate located firms. For example, the industrial estates in Gunjarawala and Sialkot, Pakistan, each have one or more government-run technical support centers that provide specialized services to estate enterprises. Significantly, two of the most successful centers support industries which produce largely for export markets, and support activities are aimed at raising quality control and reducing costs to internationally competitive levels.

5.17 The services provided by the technical support centers in Pakistan to estate enterprises illustrate the types of assistance that firms often require: (a) technical advice; (b) common facilities, such as tool and die-making, heat treatment, electro-plating, and small tool accessories; (c) training of technical personnel; (d) design and development of equipment, production techniques, packaging, etc.; (e) formulation of technical standards; and (f) quality control. UNIDO, in conjunction with local institutions, helps establish and operate industrial estates and other common service facilities such as industrial extension centers which provide research, marketing and engineering services. Several other agencies also have experience in developing industrial estates.

5.18 Industrial Cooperatives. Although largely unexplored so far by the Bank Group, industrial cooperatives are potentially effective means of channeling technical assistance to SSE, as well as of involving small entrepreneurs directly in decision-making. There exist many functioning industrial cooperative structures in more than sixty developing countries and some have their own technical assistance programs in place. Some African countries have a long tradition of handicarft cooperatives. Strong industrial cooperative movements in countries like India, Argentina, Mexico, Bangladesh and Pakistan provide needed TA through well developed second-tier structures.

5.19 In Tegucigalpa, Honduras, a wood-working cooperative aids the production and productivity of over one hundred member shops through joint procurement of raw materials, tools, machinery, and equipment, and assistance in enlarging existing markets and identifying new ones. Technical advice in furniture design and equipment selection has been forthcoming from a U.S. consulting group, Technoserve, which is leaving behind in-house enterprise capabilities; it also has been instrumental in guaranteeing credit from three local banks. Export markets are only now developing but the domestic market has expanded rapidly, with the government placing a number of orders. The government has also responded to the growing political strength of the organization by rerouting the supply of the country's best lumber away from export markets and towards local industry. Accordingly, membership has increased seven-fold in three years, and total employment in the shops has increased four-fold to 850 workers; employment is projected to almost double again by 1977.

5.20 The international cooperative movement, through regional offices of the International Cooperative Alliance (ICA), and the ILO have helped improve and expand training and delivery of essential industrial services to cooperative members. In India, approximately thirty-two million oilseeds growers are members of cooperatives, and some twenty cooperative processing plants--many assisted by the Cooperative League of the United States (CLUSA), an ICA member--serve these farmers. As of 1969, seventy-six cooperative sugar factories produced over thirty percent of all sugar produced in India. Tenant rice farmers in Ecuador, with the help of CLUSA, first organized local cooperatives and have now formed a federation, FENACOOPARR, which first leased and is now trying to purchase a small rice mill for processing member produce and earning for them additional income. Cotton cooperatives in the state of Ceara in Northeast Brazil have been similarly successful.

5.21 Whether joint enterprise or common facility in nature, cooperatives can provide one of the best structures for the channelling of technical assistance to small enterprises. They are usually designed to offer such centralized services as planning, research, bulk purchasing, joint processing facilities, machinery pools, repair shops, and sales promotion, along with business and technical advice. Development of industrial cooperatives, however, requires not only technical training for management and staff, but also education of cooperative members. Courses, meetings and discussion groups can help identify and stimulate potential leaders and activate general interest and participation. While technical training usually takes the form of formal courses, on-the-job-training is usually also necessary.

5.22 Other Systems with Direct Poverty Impacts. Apart from cooperatives, which are promising organizational modes to integrate poor people in a productive employment process, there are other delivery systems--community-based development programs and integrated project types--which can include the poor in ownership and management. Rural villages and urban communities physically incorporate the poor in identifiable groups. In some of these, an existing leader(s), center, or institution providing some form of social service acts as a catalyst and focal point for community enterprise development. Likewise, the cooperative mechanism can bring together individuals who may have no common community base or identity but who have a common purpose of forming a productive enterprise and a common need for an organization to do so. These enterprise forms require special types of delivery systems that are very different from those required, for instance, by modern manufacturing enterprises at the upper end of the SSE size spectrum. The following cases demonstrate some of the problem areas of entities of this type and examples of successful approaches taken towards their development:

a) A community "resource center" in an urban slum in the Caribbean has evolved into a skills training, production, and marketing center for the unemployed. The Center began with the provision of pre- and post-natal care and developed into a local meeting place. It became an urban grassroots mechanism for the stimulation of community action. The self-help training project uses employment-oriented action programs as an instrument for generating productive community participation. Its principal objectives are to develop local skills and talents and to help organize home industries to produce income and employment where none presently existed. It also aims to nurture self-reliance through self-employment. Twelve-week courses are offered in carpentry, masonry, plumbing, welding, sewing, and candy-making to a total of 500 participants throughout the year. Those who complete the courses are encouraged to set up home workshops which may be organized into cooperatives, while those unable to work at home continue to use Center facilities. The Center also conducts market research, provides project identification and related marketing services. Through the retention of twenty percent of the sales revenues of all products manufactured on its premises, or marketed through its efforts, the Center plans to become self-sufficient within two years. To date enterprises producing children's toys, steel gates and iron window bars, and home-made candy have been established.

b) A private development corporation in Colombia organized poor urban unemployed people into a profit-sharing cooperative that now provides trash collection and recycling services, with the aim of generating employment and substantially raising incomes of the group, while also alleviating an urban health problem and paper shortage. This was almost immediately achieved with the help of simple, labor-intensive processing technology. The development corporation has since introduced more sophisticated machinery as the scale of operations has increased. Managerial training continues with a view to eventual total worker management.

c) A small, cooperatively-owned food processing enterprise is operated and managed by women in an urban center on the Caribbean coast of Latin America. An organization of eight churches and other local groups are using this enterprise development as one means of organizing the country's women. These groups had previously done work on vocational training, nutrition, home management, and education. Based upon the women's interest in food preservation methods, it was decided that establishment of a small canning center would provide a focal point for their activities, as well as for cooperative classes, training in food preservation and nutrition education. The two women who were to supervise the project were sent to a U.S. corporation for a two-week training course; a third woman was sent to study food preservation projects elsewhere in the Caribbean. With the help of the U.S. company, a small-scale canning operation was installed, and five groups of women were selected and trained to use the equipment. Once production achieved commercial standards, markets were found through local supermarkets, hotels and hospitals.

d) In a Central American city the educational and unifying process of a cooperative housing movement has led to the organization of production units--first for building blocks, then for window frames and doors, and finally, for the provision of other products and services obtainable only in distant markets. The key to success in these endeavors has been the leadership of local labor union members, whose technical experience has been fostered in community training courses.

e) In Paraiba, Brazil, a recently formed agricultural cooperative of small subsistence farmers chose not to sell its cane to the local sugar mill which paid low prices and purchased irregularly. The cooperative invested instead in a small, labor-intensive facility to produce raw sugar and sugar alcohol for the local market. They also constructed a small plant for producing manioc flour, principally for their own consumption.

f) The need for a pig production center in the Monteagudo region of Chiquisaca, Bolivia, brought together eleven formerly competitive small farmer cooperatives (hogs and corn), one industrial cooperative with an underutilized slaughterhouse and packing plant, and a semi-public technical and social development agency to form what is now a successful agroindustrial cooperative of thirteen equal entities and 7800 members. Outside technical assistance channelled through the production center came from Canada (CIDA), Taiwan, Mexico, and Peru.

5.23 These cases illustrate community and cooperative projects that incorporate poor, uneducated people in their own development; draw upon those local resources which are available; have limited capital with which to buy equipment; usually have little or no in-house managerial experience; and supply a rather non-demanding market in terms of finishing, standardization, packaging, etc. They often need TA in promotional and organizational techniques, basic managerial and vocational training, conducting market studies, product identification, and feasibility studies in order to get off the ground. This highlights, especially for countries with little manegerial tradition, the need to foster entrepreneurial development. In fact, a useful area for DPS work would be to investigate patterns of enterprise organization (individual and collective) and assess their effectiveness for promoting SSE development in different environments.

5.24 Not all TA to such efforts, by any means, is provided through official (national or multilateral) channels. Some of the most effective assistance at the community level, in initial project formulation and implementation, originates with church or other community-action groups. National development foundations and other non-governmental social development agencies can often provide promotional and organizational assistance, and also serve as effective intermediaries with public or semi-public TA agencies.

5.25 The Intermediate Technology Development Group (ITDG) and the Volunteers in Technical Assistance (VITA) are two agencies which have extended bilateral assistance to individual community-based industries, principally in Africa and Latin America, respectively, in the choice and design of appropriate production technology, utilization of alternative materials, appropriate product design, simple accounting and cooperative management systems, etc. These organizations are also involved in influencing changes in government policies and regulations concerning small enterprise development, and in creating or supporting local R & D and technical support institutions. The ITDG prefers to help build local appropriate technology centers and make technical inputs into development programs with a view to assisting the growth of local self-reliance. It utilizes its own project staff in these countries, provides consultants, trainers and other technicians where needed, and calls upon voluntary professional expertise in England. VITA also uses voluntary inputs to respond to requests from oversees, but, at the same time, in a number of countries it has helped develop independent counterpart groups to assist local enterprises.

5.26 Many other international organizations, among them Technoserve, ILO, and AITEC, are active in developing community-based systems and integrated projects. But the point to stress is the need for all technical assistance efforts dealing with such poverty-related programs to take account of local patterns of community development, to identify and be involved with the community. A didactic approach by extension workers and TA agencies would be self-defeating; there must be a partnership in which community problems are jointly identified and solved. One of the reasons why the RITA project (para. 5.02) was not successful was that outside TA agencies tried to impose notions of "democratization" that were not accepted by the communities.

Synopsis of International TA Agencies

5.27 Numerous agencies (bi-lateral and international, governmental and private) specialize in the provision of TA of various types. Knowledge about them is fragmentary, and scattered within the Bank. An attempt has been made to collect information about the most important such agencies, with whom the Bank could collaborate in the preparation and implementation of SSE projects. The information is still incomplete, but affords a preliminary view of the varied interests and qualifications of numerous potential collaborators. Annex 5 summarizes the material assembled so far, and the overleaf table contains a synopsis classifying these TA agencies by type of expertise and by regional specialization. /Identification of, and information about, other TA sources with strong qualifications for assisting SSE will be welcomed./

5.28 It would be impossible also to list the many local agencies or institutions in the LDCs that could usefully provide technical and management advice or services for SSE. This should not be taken to indicate that such local agencies are relatively unimportant. To the contrary, the continuing development of SSE, and the effectiveness of external help to that end, will depend largely on the increasing availability of local technical/management information and advisory services that are thoroughly familiar and integrated with their varied national environments. In the design of SSE projects and their TA components, it will be important to identify and to build in effective participation by local agencies whose capabilities can be progressively enhanced.

Table 3

SYNOPSIS OF
INTERNATIONAL TECHNICAL ASSISTANCE AGENCIES

(a) by type of TA needed

Cooperatives	ICA, ILO, Technoserve, IVS
Industrial Estates	UNIDO, SRI
Subcontracting	UNIDO, IACME, APO
Technological Advice) and Referral)	Georgia Tech, ITDG, UNIDO, CIDA, VITA, IRRI, JCI, APO SRI, CIDR, Technonet
Handicrafts/Cottage Ind.	ILO, UNDP, SRI, SIDR, IACME, AVAP
Agro-industry development	ITDG, Technoserve, ILO, IID
Training of:	
- managers/entrepreneurs	ILO, UNIDO, AITEC, Technoserve, IID, INED, Georgia Tech, Technonet, IVS, IMDI, APO
- workers	ILO, UNIDO, AITEC, ORT, IVS
- extension workers	ILO, UNIDO, UNDP, AITEC, ITDG, Georgia Tech, SRI, IRRI, E-W Ctr, ORT, TETOC, IVS, IMDI, APO
Institutional development	
- management & organization	ILO, UNIDO, SRI, UNDP, Technonet, TETOC, AITEC, IMDI, FBDB
- extension centers	UNIDO, Georgia Tech, SRI, APO
- productivity and R&D Centers	Georgia Tech, ITDG, VITA, IRRI, APO

(b) by regional specialization

Africa	Technoserve, CIDR, ITDG, Georgia Tech, VITA, IMDI
EMENA	IACME
South Asia	ITDG, IRRI, Technonet, APO, IACME
EAP	IRRI, Georgia Tech, Technonet, APO
LAC	AITEC, Technoserve, ITDG, VITA, Georgia Tech, CIDR, IACME
All regions	ILO, UNIDO, UNDP, SRI, ICA, IID, ORT, TETOC, IVS, JCI, FBDB

Notes: (a) for meaning of acronyms and more information on the above agencies, see Annex 5;

(b) the information on most of the agencies is second-hand; their inclusion in this paper is therefore not an endorsement of their capabilities;

(c) some agencies have been active in particular countries rather than a whole region as highlighted in Annex 5;

(d) the above listing is still very incomplete; other agencies which have been asked to send information on their activities include: Societe D'aide Technique et de Cooperation (SATEC) (France), Appropriate Technology Development Unit (India), Batelle Memorial Institute (USA), Arthur D. Little, Inc. (USA), Industrial Development Research Center (Canada), Research Institute for Management Science (RVB) (The Netherlands).

VI. ISSUES

6.01 In the following an attempt will be made to spell out certain implications of increased Bank emphasis on small enterprise development, specifically along the lines recommended in Chapter IV, and the issues that need to be considered in determining how the Bank should proceed in this sphere of activity.

(a) Sector Policies

6.02 It was suggested earlier (Chapter II) that the policy environment in many LDCs, at worst, militates against effective assistance to SSE or, at best, does not measure up to Government-stated objectives of fostering SSE development. Considerable research has been undertaken in the Bank[1/] and elsewhere with a view to identifying policy measures conducive to more effective SSE development. The work done so far suggests that cross-country sector studies are of limited usefulness for individual SSE operations; differences from one country to another in terms of resource endowment, entrepreneurial base, and institutional provision of credit and technology are such that each project has to be viewed in its own country context. Comparative research is not without value, but it should focus on the successes and failures encountered in actual project experience. For example, a useful area for a DPS study, based on existing SSE projects would be on the relative effectiveness of different kinds of incentives (fiscal credit, guarantees, interest rate differential, assured government orders, etc.) for promoting SSE development. Another important area for DPS investigation would be on way to reduce the costs and risks associated with loans to small borrowers.

6.03 It has been suggested that the Bank should not get involved with a specific SSE project before a "sector survey" has been undertaken of the policy environment in which small enterprises operate, the extent to which factor price distortions may constrain the gestation or expansion of firms, and the incentives existing or needed to make individual small enterprises prosper. There may be cases where the policy environment is so biased against SSE development that it would seem necessary to delay undertaking a project until the worst of these biases, at least, have been eliminated. However, such cases are likely to be rare. In all countries where the Bank has undertaken small enterprise operations so far, policy biases against SSE were identified at early states of project formulation; but in none was the policy environment so distorted as to make it appear unreasonable to start with a particular project, partly with a view to initiating a working relationship conducive to the resolution of policy issues in a framework of mutual interest and practicality. This also the premise of the present paper, namely that it is better, on balance, to initiate projects

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1/ IBRD/SIDA; "Financing the Development of Small Scale Industries," Bank Staff Working Paper No. 191, November, 1974.

rather than to adopt a wait-and-see attitude. Nevertheless, in relation to each small enterprise project a specific effort should be made to analyze the policy framework as it applied to SSE, to highlight shortcomings if any and, if needed, to initiate a parallel overall study of the sector so that the next operation can be mounted from a more solid base.1/

6.04 For sector studies to be effective the Bank should, wherever possible, involve local institutions that have been active in small enterprise development. This was done, for instance, by the New Delhi office when it conducted its study of India's potential for small-scale industry.

(b) Delivery Systems for the Requisites to SSE Development

6.05 Is there such a thing as an "effective delivery system" for SSE development? Work on this paper started with a review of the relevant literature as well as the Bank's own SSE projects, and discussions with institutions that have been assisting small enterprises for some time, as to whether elements in SSE programs could be identified that would be applicable, if not universally, at least in a number of countries. The conclusion, however, was that there is no set of formulae, certainly no single formula, for successful SSE projects. Just as for rural development projects, only in rare cases can a bankable/viable SSE project be put together without considerable effort in manpower, money and time. Nevertheless, it appears that (i) SSE projects can probably be prepared more quickly than in the past and (ii) it is possible to identify a common framework for small enterprise programs.

6.06 The chart overleaf outlines such a framework for integration of credit and technical assistance in small enterprise projects. None of the individual components are sufficient conditions for designing projects, but some of them are necessary conditions. (It is therefore not a "model".) The framework for SSE assistance involves (i) building of parallel institutions for technical assistance and resource allocation; (ii) coordination between these two functions at the international, governmental and local levels, respectively; and (iii) a credit guarantee mechanism. The various ingredients may be combined in somewhat different relationships -- for example technical assistance and credit responsibilities might merged under one roof -- but these ingredients, in some form seem essential.

6.07 The Bank can properly claim credit for building institutions in LDCs which have successfully channelled the Bank's funds, as well as their

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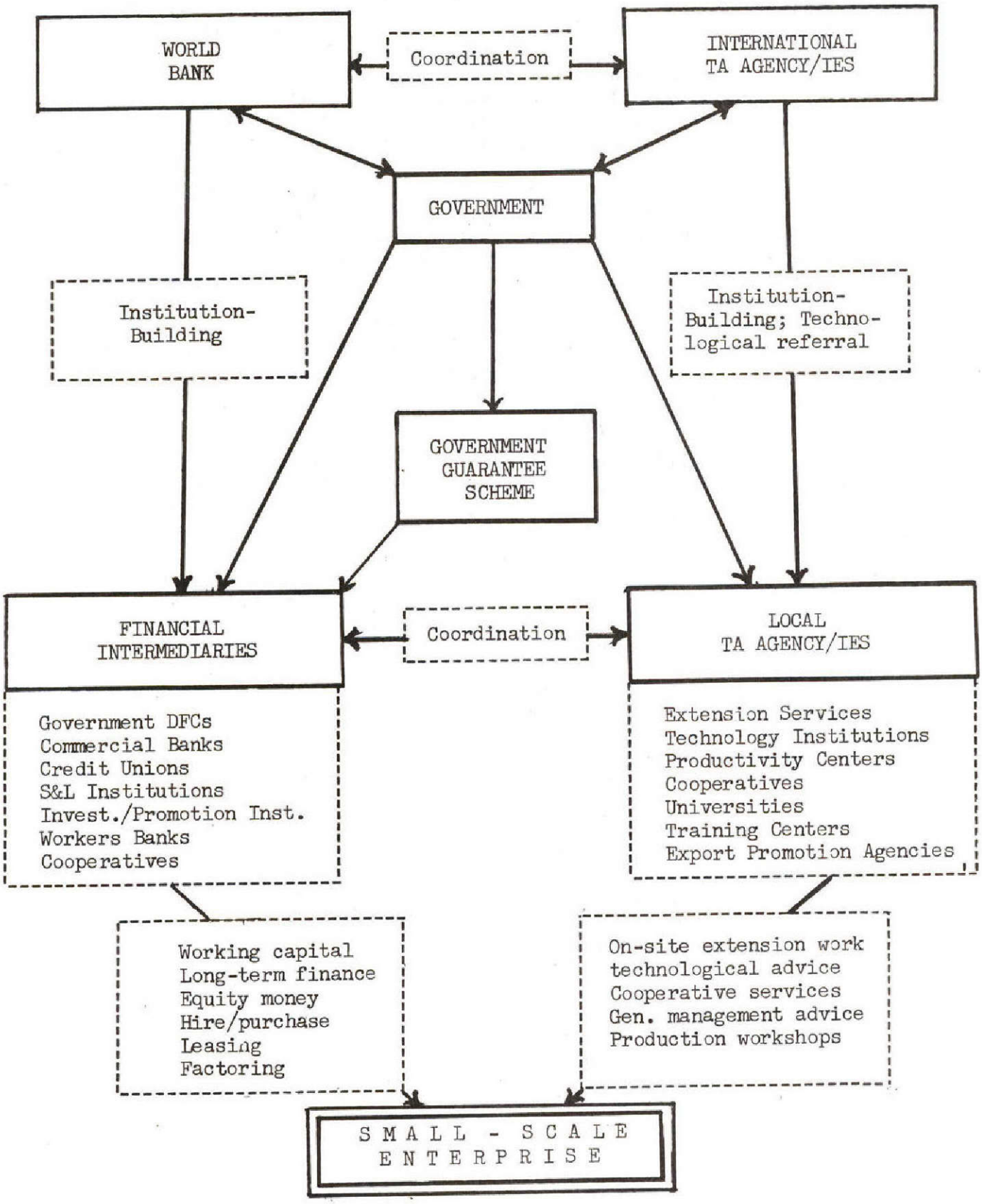
1/ Important individual sector issues should obviously, however, be negotiated as soon as possible. For instance, during negotiations of the first Indian SSE credit, the Bank agreed with the Government on a simplified licensing arrangement to speed up the processing of projects sponsored by small firms.

INTEGRATING CREDIT AND TECHNICAL ASSISTANCE
FOR SMALL ENTERPRISES



own, into sound investments.[1] Many of these DFCs have subsequently been able to attract funds from other sources, for essentially the same ends. For SSE development similarly, indeed even more essentially, vigorous intermediaries will be necessary to assess needs, appraise small projects and allocate Bank funds; and our principal efforts in this field will be directed to helping to establish such intermediaries and to build up their operational capability. Clearly, as was suggested earlier, the spectrum of intermediaries will have to be significantly broader, and so will be their range of financial and non-financial services.

6.08 A comparable institution-building effort on the technical assistance side has been mounted in a number of developing countries. However, those efforts have been more fragmented: for instance, UNIDO is associated with training programs for small modern industry and technical assistance for the establishment of industrial estates; ILO provides assistance on handicraft and training; other organizations financed by CIDA or USAID provide technological project information; etc. The Bank should collaborate with, and seek to learn from the experience of, all of these, although ideally one agency should take responsibility for providing technical assistance to any one SSE project; however, government preference for keeping options open may sometimes complicate matters.

6.09 Until recently there was little coordination between the institution building efforts of the Bank and those of the multi- and bilateral TA agencies. In fact, only recently has the Bank agreed with UNIDO that they will keep each other informed of all small enterprise projects. With ILO there is even less communication.. But coordination is vital, and we propose that within the DFC Department's Small Enterprise Unit, an officer be designated to establish and maintain effective liaison with all bilateral and multilateral technical assistance agencies which may contribute, either through joint programming or mission support, to integrated credit and technical assistance for small enterprise projects in which the Bank is interested. A Documentation Center should be established in this Unit, which would keep up-to-date information on those TA agencies and their activities. Less than one man's time should be required, while the avoidance of waste of manpower, in duplication of effort, would be substantially greater.

6.10 At the project level also there is often a problem of ensuring proper coordination between the credit appraisal and supervision by financial intermediaries and assistance needed by the borrower on questions of technology, business management, marketing, etc. Obviously, the latter services are often important to the success of the enterprise, and their adequacy should influence the confidence of the lending institution.

1/ A detailed sample analysis of 160 DFC projects in the course of "Special Studies on the Developmental Impact" of DFCs in five countries indicated a weighted average economic return of 23%.

Frequently, however, there is rivalry and distrust between the industrial extension service (usually a Government department) and the financial entity (which wants to maintain its autonomy). For some industries in some countries, technical assistance may not be needed[1] -- only money. In others, necessary technical assistance services are provided under the auspices of, or in close association with, the financial institution.[2] On the whole, current Bank thinking is that this latter approach is generally more promising than reliance on cooperation between technical and financial assistance agencies having different sources of dunds and authority. This view is shared by some member governments (e.g., in the SSE project under appraisal for Indonesia) but other governments, and most technical assistance agencies, multi- or bilateral, disagree. Normally, it is likely that TA and credit for SSE will be provided from different sources, and assessment (and assurance) of coordination between them will be a vital question in project appraisals by the Bank. In any event, the Bank should analyze the relative advantages, in different national and institutional environments, of previously technical assistance for SSE development through DFC or other financial intermediaries, as against a separate agency.

6.11 Most, if not all, SSE credit programs will require a system of credit risk guarantees, at least in the early stages. Such guarantees may be provided by secondary cooperatives for their members, where a strong cooperative organization exists, but usually it will have to come from the government, the central bank or a government-owned DFC. Without such a guarantee, financial intermediaries will be reluctant to take on the risk (even at subsidized interest rates to cover higher costs of administration) of credits to small enterprises. Rediscount facilities specifically earmarked for SSE financing by DFCs or commercial banks may also be an effective inducement to such financing by increasing the leverage on the intermediary institution's own resources and providing additive funds that would not otherwise be available to the intermediary.

6.12 No prefabricated model can be presented for effective small enterprise projects -- only a framework that needs to be adapted to each country situation. Still the linkage of credit and technical assistance is clear, whatever the auspices under which they may be provided; the Bank now has a good perception of alternatives for this purpose . It also has an increasingly rich base of experience with small enterprise projects. Better coordination and more experience will not ensure a flying start in all cases, but at least the Bank does not have to start from scratch each time it puts an SSE project together.

1/ For instance, BOA (Egypt) reports that certain industrial sectors (leather, transport, construction materials) either have a good entrepreneurial base or employ unsophisticated technology and, therefore, do not normally need outside TA.

2/ The Medium Industry Bank (Korea) is an example where TA and finance (both short and long-term funding) under one roof seems to have worked rather well.

(c) SSE Lending Risks and Institutional Creditworthiness

6.13 Two kinds of risks are associated with the new Bank emphasis on SSE development. The first is a failure and default risk. The second relates to the cost-effectiveness to the Bank of mounting SSE projects.

6.14 Costs. In the light of what has been said in the previous section, the second risk is obvious and needs only brief attention. Most SSE projects will be considerably more difficult and time-consuming in preparation, appraisal, and supervision than normal DFC-type projects. For example, the Bank devoted 28.7 manweeks to making its seventh loan, of $100 million, to ICICI in India, an efficient allocator of resources to medium and large-scale industry.[1] By contrast, the first small/medium scale operation in Cameroon, for $3 million, cost 144 manweeks to bring to conclusion.[2] The Cameroon operation thus required five times more manweeks than that in India, and in terms of manweeks per dollar lent, the ratio was a staggering 167 times. To be sure, these are the extreme cases. Large repeat operations to a well-known borrower naturally cost less than first-time, novel projects. And the comparison leaves out numerous peripheral benefits and costs. Nevertheless, it illustrates the Bank's dilemma in assuming large administrative costs for planning and appraising small enterpise projects, and the more than normal requirement for staff to prepare and implement such projects.

6.15 The Bank cannot assist every deserving small enterprise project. Its main contribution to SSE assistance will be through trial and demonstration. Thus, the Bank should concentrate on those projects which (i) can inspire and structure other similar efforts within the country and (ii) may be replicable elsewhere in the world. Considerable further work is needed to define specific, solidly based criteria of demonstration and replicability. They will vary among countries. But several pilot project preparation exercises are now underway which should yield more precise guidelines by about the end of FY 1977, including better estimates of staff resources really required for sound SSE project development.

6.16 Default Risk. The failure and default risk for SSE is indeed higher than for larger enterprises, but they can probably be reduced through appropirate measures. The overleaf table compares, for three countries where the Bank has assisted intermediaries catering to both small and larger firms, the quality of their respective portfolios. Although the data are not strictly comparable, it is fair to conclude that the SSE intermediaries in those countries (MIB, the SFCs and CFP) have a greater arrears problem than the DFCs assisting the larger enterprises. The table also confirms the considerably greater administrative costs for the intermediaries' promotion and appraisal/supervision of medium and SSE subprojects; as a result profitability for DFCs serving this range is significantly lower as a percentage either of total assets or of equity, than for other DFCs despite a generally higher spread between the borrowing and lending rates.

1/ A 1973 Special Study on "ICICI's Developmental Impact" showed a (weighted) average) economic return of 19% for a sample of 42 projects.

2/ The Bank-wide average for FY75 was 75 manweeks per project.

6.17 These findings are as was anticipated ab initio, but they need to be refined and probed further. While it is to be expected -- and certainly the Bank's own experience suggests -- that it costs considerably more to make and administer 100 loans of $50,000 (or 1,000 of $5,000) than five loans averaging $1 million each, we must recognize also that the criteria and procedures for credits of such different orders of magnitude are not (or should not be) the same. One field for intensive and imaginative investigation over the next 2-3 years, examining the practices and experience of a wide range of entities financing relatively small firms, is to identify quick, simple screening devices and warning signals that could substitute in part for more formal appraisals in dealing with small projects. These short-cut criteria will vary in different economic/cultural environments. Some are known to and used by traditional money-lenders, whose concern, however, is only marginally for the productive merits of the expenditure he is financing. Local administrations and commercial banks should have relevant interest and insights. Various approaches are under active consideration in the Bank, in connection with certain urban and SSE projects and as an outgrowth of the present paper (see para. 6.26 below), but much more empirical investigation is needed.

6.18 As regards Bank operations, the interim findings suggest that:

(a) as a matter of policy,the Bank should normally allow a significantly larger spread to DFCs on Bank funds assisting small enterprises than has generally prevailed for conventional DFC operations;

(b) governments should normally assume the foreign exchange risk associated with Bank lending for SSE projects; and

(c) the Bank should not compromise its creditworthiness standards in accepting intermediaries for onlending to SSEs.

6.19 It is not possible to specify a single, universally applicable figure for the spread between borrowing and onlending rates that is needed for DFC assistance to SSE. However, we know the relevant factors to be considered in each case: average project/loan size; sectoral composition; type and maturity of loans; structure of resources in terms of cost, type and maturity; range of services provided by the DFC; and experience with arrearages. Most of the DFCs associated with the Bank have a spread between 1.5% and 3% on Bank funds, but they have catered mainly to medium-sized firms. For SSE lending (until the studies mentioned in paragraph 6.17, seeking means of reducing the higher costs and risks associated with it , bear fruit) the Bank should be prepared in principle, and subject to justification in appraisal reports, to

(a) allow spreads on Bank Group funds between 4% and 8%;[1/]

(b) agree that IDA and Third Window funds be passed on at an interest rate below that of the Bank (currently 8-1/2%) when this is necessary to accommodate the above spreads (this presupposes agreement on the magnitude of the on-lending rate to sub-borrowers); and

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1/ Usually large spreads could, for instance, be justified for those DFCs which provide also for the technical assistance needs of SSE, although the cost of such services should be separately identified insofar as possible.

(c) help to mobilize in conjunction with IBRD loans, where the 8-1/2% rate does not give a big enough spread, funding from outside sources for the spread needed.1/

6.20 Foreign Exchange Risk. It has been Bank policy to require that the intermediary protect itself from any material risk due to currency adjustments, and that this risk be either passed on to sub-borrowers or assumed by the government/Central Bank. In practice, given (i) the relatively sophisticated clientele of most DFCs, (ii) the fact that imported goods provide a hedge against domestic currency depreciation, and (iii) the frequently low levels of domestic interest rates, the Bank has viewed government's assumption of the risk as a subsidy requiring justification in appraisal reports. For SSE borrowers, however, who may need only a $1,000/$5,000/$10,000 loan, the case is far different. They are less knowledgeable about foreign currency transactions, less oriented toward international prices, and less cushioned against financial shocks. To explain to them the implications of a foreign exchange risk (compounded by the Bank's unpredictable currency-call preferences) might be futile, and certainly would stifle initiative and sense of responsibility. It is recommended, therefore, that Bank policy favor the government's assuming the exchange risk in SSE operations, generally charging a fee therefor.

6.21 Interest Rate. Should small borrowers be charged less, more, or the same rate of interest as medium/large enterprises in those countries? The final interest rate vitally affects the financial viability of the intermediary (whether a commercial bank, a DFC or a less formal channel), its ability to sustain high administrative costs and repayment risks, and the consequent amount of public subsidy required (through concessional interest charges or guarantees). This is a controversial area, in which the data are fragmentary and the inferences therefrom dubious. Still, some tentative judgements can be suggested:

(a) for most SSE in developing countries, the advantage of a few percentage points reduction in interest is less significant than gaining access to credit on any reasonable terms;

(b) a subsidized interest rate for SSE -- i.e., a rate less than substantially positive in real terms -- would represent a drain on public financial resources which, to be acceptable, should be clearly compensated by socio-economic benefits -- e.g., employment or development of backward areas;

(c) to attain a secure status, not permanently dependent on government favor, SSEs must be able, eventually, to survive on marketplace financial terms;

1/ For example, KfW and SIDA have been willing to make low-cost money available, under certain conditions.

(d) the costs/risks of lending to SSE are inevitably higher than for lending to large, established industries, so that equivalent interest charges, in themselves, would constitute a subsidy to SSE; but

(e) on the other hand, there are obvious political inhibitions to officially sanctioning much higher interest rates for SSE, which would fully reflect the costs/risks to the banks of lending in this sector, than for the industrial "fat cats."

Our view and recommendation is that the norm for SSE on-lending rates, through officially-controlled channels, should be the same as for medium/large sub-borrowers in the same country -- although, given the divergences in environment and attitudes, the Bank should objectively consider arguments to the contrary, in either direction.

6.22 Creditworthiness. Finally, the above issues (SSE riskiness, portfolio quality, interest rates, and spread for DFCs) need to be checked against the Bank's creditworthiness criteria for intermediaries. Should the Bank be more "lenient" in evaluating DFCs that develop SSE? Our recommendation is that despite a desirable emphasis on SSE programs, the Bank should not encourage a double standard in the quality of its DFC borrowers. Management, policies and procedure, capital structure, audit, etc., should be appraised for SSE intermediaries with no less concern for their viability and soundness of financial judgment than for DFCs catering to larger firms. Still, as has been suggested earlier (para. 6.17) the specific judgmental standards and procedures applied by the SSE intermediary must be different and simpler; rules are now being worked out for several specific ountry situations which it is hoped will prove applicable elsewhere. When numerous intermediaries are involved (for instance a network of commercial banks, cooperatives or regional institutions), a two-tier lending approach will be necessary; in this case the Bank's attention would be concentrated on the creditworthiness of the apex institution. If the apex institution is shaky, but its purpose laudable and its potential good, the Bank may lend indirectly through the Government;[1/] again, however, it should strive through the loan and subsequent contacts to strengthen the institutional structure that assesses and supports the ultimate producer benefitting from the loan. The Bank's interest rate and spread policy can, of course, be important factors in establishing and/or maintaining a DFC's creditworthiness.

6.23 Local Currency. Following the precedent set in the 1975 Colombian loan for small and medium industries -- by which the goods and services eligible for Bank financing are equated with the estimated foreign exchange content of the universe of subprojects financed, rather than that of the specific items financed with Bank funds (see para. 4.36) -- would largely eliminate the disadvantages for SSE which would apparently result from the stricter, more usual limitation to the foreign exchange component of specific items financed. It is recommended that Colombian precedent be the normal rule for SSE financing. There may still be some SSE projects, however, whose circumstances would justify explicit local currency financing; they should be justified, and sympathetically considered, on their merits.

1/ For further explanation of how the Bank deals with (temporary) institutional uncreditworthiness, see IBRD, "DFC Policy Paper," August 6,1975, pp. 22-25.

6.24 Two further implications of increased SSE emphasis are significant in this context, but need not be spelled out in detail since they have come to be established Bank practice. First, given the relatively short maturities that frequently characterize lending to small businesses, the Bank will usually have to accede to "rollover" in SSE loans in view of its function as provider of long-term resources. Secondly, in view of the larger number of subprojects under SSE loans, simplified disbursement procedures are necessary. These are now usually modelled after the system adopted in 1972 for the first SSE project in India where about 1,000 enterprises were expected to share in the proceeds of a $25 million credit.

(d) Evaluating Small Enterprises and Project Benefits

6.25 Over the years the Bank has extended considerable non-financial assistance to the DFCs with which it is associated -- including EDI training, participation of DFC staff in Bank Appraisal work both in the field and at headquarters, guidelines for project evaluation,[1] recruitment of managers and advisory staff for DFCs, and ad hoc advice on specific issues. Most of this assistance has been rendered to DFCs supporting large or medium-sized firms. Its principal object has been to improve the ability of these DFCs to appraise systematically the soundness of subprojects -- their prospects of earning enough to support the required debt service charges with a safe margin, and their demonstrable contribution to the national economy.

6.26 The nature of SSE projects, the much lower average investment involved and the much more numerous clients make it impossible for the Bank to expect the same rigor and detail in SSE subproject appraisals. Discounted cash flow analysis, economic return calculations and break-even/sensitivity analysis will usually be unfeasible, and of doubtful relevance, for these small subprojects, particularly those in the informal sector. Economic analysis will, at best, be possible for sub-sectors rather than individual projects, and even then will usually be limited to static criteria such as the domestic resource cost of foreign exchange earned/saved. Financial analysis will rarely go beyond a "pay-back" test, focussing mainly on prospective cash flow. More attention will be given to "character" appraisal,[2] reemphasizing the importance of people, rather than financial ratios, as the main determinants of viability of SSE projects. And since there are obvious limits to how far character appraisal can be systematized or based on quantitative criteria, the success of many SSE financing programs will depend on a relationship of trust and good communication among the small entrepreneur, the DFC appraisal officer and the technical extension worker.

1/ IBRD/DFCD: "Guidelines for Calculating Economic Returns in DFC-Subprojects", mimeo, June 1974, reprinted November 1975.

2/ In its assistance to small family/cottage businesses (average loan amount about $2,000), BOA's (Egypt) lending criteria are that "the borrower must have a good reputation, be serious, have good prospects of success, and have a project which fits into the micro-environment."

6.27 A further problem in SSE project evaluation arises from the fact that several competing objectives are often being pursued. What decision rules should apply when projects show widely diverging contributions to growth, employment, exports, and regional development? Should the dominant criterion continue to be the rate of economic return on investment, or should a "points-system" apply (perhaps similar to the one which the Colombian central bank has been using for some time with various credit lines), whereby individual projects are rated in relation to their contribution to various objectives?

6.28 Consider the following example of two projects which cost the same but vary in their impact in relation to different objectives:

Objectives	Project A	Project B
Economic Return	7%	20%
Exports	-	35%
Fixed Investment/Direct Job	$5,000	$50,000
Daily Wage per Unskilled Worker	$4	$7
Imported Machinery (as % of Fixed Investment)	40%	10%
Backward Area Location	Yes	No

Next, assume that an estimate of economic return is not feasible; moreover, we have not considered indirect employment effects. Project A has a far better direct employment effect, but there is some quantitative evidence that the indirect effects may be considerably more significant.[1/] Even in the above example, one possible indirect employment impact (viz. the preference for imported over domestic machinery) reduces the difference in total employment generation between the two projects.

6.29 CPS Director's Memorandum 2.15 discusses the subject of employment in relation to project analysis, but it does not solve the above dilemmas since many important benefits and costs cannot be quantified; in any event, it is not readily applicable to SSE projects. Work towards the development of more than appropriate guidelines is underway[2/] but they too are likely to be too sophisticated for SSE. Furthermore, there is urgent need to know more about the factors that influence employment indirectly. The import propensity of projects is one such factor, and DFCs should take this into consideration, but it is inadequate even as a "partial indicator" of indirect employment effects. It will be some time before we will have more satisfactory partial indicators, although indirect employment is a priority area for DPS research.

1/ IBRD, "Colombia-Special Study: Socio Economic Impact of Financiera Assistance", DFCS/LAC, January 1976. Actually in 9 of 29 cases studied the indirect effect was more important than the direct effect; and in 5 cases the total employment effect was negative although the direct effect had been positive.

2/ DPS and NPD are collaborating to develop "Guidelines for Improving Industrial Project Design" (see the October 23, 1975 "Action Program of Urban Poverty Task Group", p. 28).

6.30 For the time being, we suggest that the Bank concentrate its efforts toward introducing/fostering employment considerations in DFC subproject promotion and design (see paras. 4.03 ff. above). For medium and larger projects the financial and economic decision rules applied so far should continue to be used. But DFC appraisal reports on all medium/large subprojects (e.g., those with DFC financing over $250,000, constituting more than 20% of fixed investment) should be required to contain a specific discussion on alternative technologies considered.

6.31 Again, however, it would be unwarranted to require a similar scope and detail in subproject evaluation for SSE. And for the smallest projects, the following criteria should suffice to justify a subloan:

(i) an estimate that chances are 75% or better that the enterprise will still be in business five years hence, and will have sufficient cash flow in the intervening years to cover operating requirements plus debt service;

(ii) working conditions that are tolerable (see para. 6.34 below); and

(iii) the nature of the project being consistent with national development priorities.

(e) Poverty Impacts Other Than Employment

6.32 This paper derives from the need to generate off-farm employment for poor people in the less-developed countries. But such employment, especially in SSE, often has negative side effects; workers may be paid exploitation wages, be exposed to unhealthy conditions of noise, smoke or chemical pollution, and have inadequate protection. Almost any Bank mission inspecting small industrial firms has seen working conditions that it would consider intolerable for more time than the plant visit. Given these widely prevalent conditions, it is possible for the Bank, in its financing of SSE, to avoid becoming an accomplice in grievous offenses against human welfare?

6.33 Family enterprises, and those in the informal sector, typically "exploit" their workers through long hours, low wages and poor working environment; many formally established SSEs do likewise. Often it is alleged that they could not otherwise survive in competition with medium and large scale firms with more modern, capital intensive facilities. Insofar as this is true, and to some extent it probably is, the alternative to substandard employment conditions may be an absolute loss of jobs. This dilemma has plagued the process of industrialization almost everywhere; and it presents itself in acute form to less developed countries now in the early or middle stages of that process.

6.34 Minimum wage, safety and environmental health standards established by governments to protect workers from the worst abuses are frequently not enforced against small enterprises, because of the administrative, political and economic problems entailed. Should the Bank, in setting conditions for use of its loans, be much more demanding? It is inappropriate for the Bank, or its DFC clients, to assume a policing role in this field; and to flatly prohibit use of its loans to assist any enterprise or subproject deemed to

be in violation of the legal regulations (which are sometimes mainly cosmetic, or serve to protect vested interests) might defeat the objective of expanding employment for those most in need, through SSE development. On the other hand, it is clearly not in the interest of the Bank, or of member countries, that our financing should support and be associated with enterprises, whether small or large, that violate the most basic norms of health, safety and treatment of their workers. It does not seem possible, at this point, to give any clear-cut, generally applicable exclusionary rules. By and large, discretion must be left to the intermediary. But the Bank should press for including in the policy statement and operating rules of its DFC clients an obligation to examine critically the working conditions maintained by sub-borrowers, and to seek to upgrade them insofar as practicable. In some cases, relatively minor and inexpensive adaptations of subprojects might considerably improve substandard conditions. Moreover, appraisal/supervision missions should give explicit attention to the DFC's actions and effectiveness toward improving work standards, taking due account of the economic and institutional environment.

(f) Programming Implications of the Poverty Emphasis

6.35 In this section, an attempt will be made to spell out some implications of increased emphasis on poverty concerns in the Bank's assistance to intermediaries, particularly those serving SSE, with regard to the Bank's

(i) lending program,

(ii) manpower requirements,

(iii) monitoring needs, and

(iv) organizational set-up.

(i) DFC/SSE Lending Program

6.36 The operating units in the Bank concerned with DFC and SSE projects have analyzed the potential for expanding Bank lending to intermediaries assisting the manufacturing and service sectors, with special emphasis on smaller enterprises. Their tentative indications of project possibilities suggest that a dramatic increase in such lending could be envisaged.

Table 5

Aggregate DFC Lending
(amount in $ million)

	FY 73-76[1]		FY 77-80[1]		Increase	
	No. of Ops.	Amount	No. of Ops.	Amount	No. of Ops.	Amount
Total DFC Lending	76	1,953	212	4,490	179%	130%
of which SSE	7	75	90	1,120	1,180%	1,390%
SSE as % of Total	9%	38%	42%	25%	367%	558%
Averages p.a.						
(a) Lending Amount	490		1,122		+130%	
(b) No.of Ops.	19		53		+179%	
(c) Loan Size	25.6		21.2		-17.2%	

1/ Comparable figures for the five year periods FY 71-75 and FY 76-80 are as follows:

	No. of Ops.	Amount ($ million)
FY 71-75 (current prices)	74	1,700
FY 76-80 (1976 prices)	242	5,260
Increase	227%	209%

However, with FY 76 lending largely determined, a change in Bank emphasis can only take effect from FY 77 onwards; hence it is more meaningful to compare the four-year periods FY 73-76 and FY 77-80.

In addition, loans for industrial estates and other types of projects primarily benefitting SSE might reach 12 operations totaling $150 million during FY 1977-80, as against 5 operations for $49 million in the period FY 1973-76. Since the FY 73-76 figures are in current prices and those for FY 77-80 in 1976 prices, the increase in real terms is smaller, about 110% for DFC lending rather than 130%. Still it would represent a quantum jump, especially as regards the SSE share.[1]

1/ P&B's August 1975 projections indicated a $2,664 million DFC lending program for FY 77-80, which is equivalent to a 36% expansion over FY 73-76.

6.37 It should be stressed again that the foregoing figures represent estimated potential, not a program. In particular, they have not been reconciled with projected or possible operations in other sectors, within their constraints of the Bank's overall lending ceilings. A DFC-cum-SSE lending program of $4.6 billion for FY 1977-80 would be about 16% of total IBRD/IDA lending anticipated during that period[1] (compared to a 11% share during FY73-76), putting this "sector" second only to agriculture for which a 29% share has been projected. Such a substantial shift in emphasis would require careful consideration and a top management decision.

6.38 Several related questions are also posed. If the full potential indicated above for assistance to SSE (excluding agriculture) were realized, this "sector" would absorb over 4 per cent of the Bank's total loan commitments for the FY 77-80 period, with a substantially higher proportion in the later years -- a considerable exposure in this new and complex field of activity. More important from the standpoint of our DFC clients, SSE financing would constitute some 25 percent of new lending commitments for DFCs.[2] While conventional DFC operations would expand, on the above assumption, by 56 percent (perhaps 45 percent in real terms), the SSE share would increase 15-fold (nearly 13-fold in real terms). On past experience, the indicated rate of increase for conventional DFC operations may be insufficient to accommodate their normal and desirable expansion; and their financial problems could be aggravated if, as seems likely, the total DFC lending potential has to be cut back because of competing claims and overall ceilings.

6.39 Nevertheless, it is recommended that vigorous efforts be maintained to realize the potential for SSE financing at least as the indicated proportion of total DFC lending (25 percent) -- i.e., that any limitations imposed on overall DFC lending possibilities should apply in equal or greater measure to the conventional (medium or larger scale) portion. At the same time decisions to "phase out" an existing DFC relationship, or substantially to reduce the share of its resources provided by the Bank, should be communicated to the DFC, with a projected timetable, as early as possible, to enable it to plan and intensify its efforts to seek funding elsewhere.

(ii) Manpower and Budget Requirements

6.40 Clearly, manpower availability is a key parameter affecting the feasibility of the above expansions in DFC lending, particularly for small enterprises. Significant staff expansion will be indispensable to translate

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1/ The IBRD/IDA lending program for FY 1977-80 amounts to $28,941 million (in 1976 prices).

2/ This is somewhat overstated, largely because several of the potential operations would deal with small and medium enterprises, as defined in the various countries. However, where the relative share of small and medium enterprises could be estimated on the basis of historical data (India, Korea, Philippines), only the SSE component was included.

increased emphasis on SSE into effective, practical programs of financing and technical support. The overleaf table 6 contains an analysis of regional staffing needs, in relation to increases in the number of operations, particularly for SSE, and in the lending volumes. Again, an iterative process within the various regions will be necessary to adjust manpower requirements to the ultimate composition and amount of DFC lending programs. This is beyond the scope of the present paper.

6.41 Overall, however, we would emphasize that the staffing needs indicated in the regional projections seem reasonable in relation to the full potential DFC lending program. The key indicators to gauge staffing needs are not so much the rise in lending volumes (110%) and supervision tasks (112%), but rather the increase (179%) in the number of operations to be appraised, particularly those for small enterprises, and the number (61) of new operations to be mounted, of which 80% involve SSE projects. Against these numbers, and considering the Bank's unfamiliarity with small enterprise programs, a doubling of professional staff strength by FY 1980 seems reasonable indeed and presupposes considerable gains in staff efficiency and experience.

6.42 A concomitant change in DFC staff composition and emphasis will also be required. We shall have to tap new sources of recruitment for the new posts, as well as reorient some existing personnel. Furthermore, at least during the next several years, more outside consultants will have to be used in the preparation and appraisal of SSE projects. This is reflected in the overleaf table 7 which compares FY 76 budget figures with FY 80 projections ($'000 in 1976 prices) on the basis of the above potential forecasts of DFC operations. It indicates that by FY 80 a 120% increase in regional DFC budgets would be necessary. This corresponds to a 25% increase in direct budget costs per dollar lent.[1/] However, the cost increase is primarily due to higher travel and consultants costs, rather than staff growth, and appears reasonable considering that only 4 SSE operations are being handled in FY 76 compared to a potential 33 such projects in FY 80.

(iii) Project Monitoring

6.43 Given the diversity of SSE programs financed to date or in early prospects and the largely experimental nature of several of those about to be initiated (paras. 7.10 ff.), adequate monitoring of project performance and experience is a high priority task for the Bank, as an indispensable means to improving the design of future SSE operations. In keeping with the concepts and recommendations set forth in this paper, it is proposed that:

1/ Admittedly, in comparison of budget/lending volume ratios (0.232% in FY 76 and 0.289% in FY 80) is, at best, a very crude "partial indicator" of cost efficiency. Furthermore, there are obvious limitations in comparing two years only. Finally, no attempt has been made to quantify the costs involved in research/support work within the regions, DPS and DFCD.

Table 6

Regional Staffing Needs for DFC Operations

	No. of Active DFCs[1]				Lending Share (%)		Increase in Lending Volume (%)[2]	FY77-80 Operations		FY77-80 New Generations	
	Present	FY80	Start of FY76	FY80	FY73-76	FY-77-80		Total	SSE	Total	SSE
Africa	13	28	12	33	7.6	11.8	255	75	30	17	13
EMENA	13	21	14	24	34.8	18.9	33	35	13	13[3]	10
South Asia	6	19	8[4]	18	16.3	20.3	185	42	19	12	9
EAP	12	21	8	16	22.7	26.1	165	28	15	7	7
LAC	13	23	14[5]	28	18.5	22.9	185	32	13[6]	12	10
Total	57	112	56	119	100	100	130	212	90	61	49
	96% staff increase		112% increase in DFC under active supervision		equivalent to about 110% real increase in lending volume			SSE account for 42% of total operations; overall, operations increase by 179% over FY73-76		SSE account for 80% of all new operations	

1/ Defined as DFCs under supervision.
2/ Comparing the periods FY 73-76 and FY 77-80.
3/ 12 further operations have small SSE components under $2 million.
4/ Counting the 18 State Financial Corporations (India) as one institution.
5/ Counting the Colombian private financieras as one institution.
6/ 7 further operations have small SSE components under $2 million.

Table 7

BUDGET COMPARISONS FOR DFC OPERATIONS

	FY 76				FY 80			
	Budget ('000 $)	Lending Volume ($ mil.)	Operations ( ) Total	SSE	Budget ('000 $)	Lending Volume ($ mil.)	Operations ( ) Total	SSE
Africa								
Salaries (prof.)	360				780			
Travel	130				270			
Consultants	10				80			
Sub-Total	500	105	12	2	1030	164	24	10
EMENA								
Salaries (prof.) Travel	) 235				) 375			
Consultants	20				40			
Sub-Total	255	153	7	0	415	280	10	4
South Asia								
Salaries (prof.)	138				475			
Travel	80				260			
Consultants	-				40			
Sub-Total	218	90	8	1	775	232	20	9
EAP								
Salaries (prof.) Travel	) 380				) 760			
Consultants	50				140			
Sub-Total	430	175	4	1	900	355	8	5
LAC								
Salaries (prof.)	300				575			
Travel	100				250			
Consultants	40				110			
Sub-Total	440	270	5	0	935	370	9	5
Total	1,843	793	36	4	4,055	1,401	71	33
(Total consultants budget)	(120)				(410)			

(a) DFCD, in consultation with other interested units in the Bank, will put together, by the end of 1976, a monitoring system for SSE operations;[1/]

(b) in-depth analysis of all Bank-assisted SSE projects that have gotten underway by then should be undertaken by DFCD during FY 1979-80, to assess the effectiveness of the Bank's support to SSE development, enlisting close collaboration from DPS, Urban Projects and Rural Development;

(c) research planned by DPS on employment creation and the impact of SSE development thereon (see paras. 2.18 and 6.02) should focus specifically on the lessons that can be derived from our presently limited, but growing, practical experience; and

(d) a Policy Paper on SSE Development be prepared by DFCD on the basis of (b) above, to be ready by June 1980.

6.44 An essential requisite to adequate project monitoring is proper periodic reporting. The SSE projects assisted so far show wide differences in reporting requirements, ranging from scanty data to perhaps over-elaborate information requests. Greater uniformity related to the real need and utility of information, is clearly desirable; a proposal to that effect has been prepared by DFCD for discussion within the Bank. The specified reporting requirements will have to be flexible enough to fit varied local conditions.

(iv) Organizational Set-up

6.45 As an outgrowth of the Urban Poverty Task Group, the organizational implications of the Bank's changing perspective on industrial sector work, including greater emphasis on SSE development, are being considered by an inter-departmental Task Force. The view of the authors of this paper is that responsibility for development of small (non-farming) enterprises needs to be clearly located and defined:

(a) in the regions, the study of SSE potentialities and problems within the overall country economy, and the operational work associated with specific SSE projects in the DFC divisions (appropriately renamed);

(b) in DPS (DFCD also appropriately renamed) the following functions:

(i) Systems work on non-farm financial intermediaries, sub-contracting, industrial estates, appropriate technology, project monitoring, the linkages between credit and TA programs for SSE development, etc.;

1/ In this context the relationship needs to be resolved between the system and the Project Monitoring Guidelines which DFCD had primarily to the types of DFCs which were assisted in the past (IBRD/DFCD, "Project Monitoring System," September 23, 1974).

(ii) Backstopping and guidance for regional DFC units, particularly in the design/appraisal of experimental SSE projects, including the provision of supplemental staff where the regional resources are insufficient;

(iii) Liaison with outside agencies (both lenders and TA institutions), documentation on TA agencies, and a small SSE library; and

(iv) Operationally oriented studies, in close coordination with DPS research efforts.

6.46 Staffing and budgetary implications will be reviewed in relation to the finally agreed operational program (see paras. 6.36 ff.), but it is clear that major supplements to existing staff will be essential to lend credibility to the Bank's commitment to promotion of SSE development and to reinforcement and reorientation of national intermediaries to that end.

VII. ACTION PROGRAM

7.01 The issues posed and the measures suggested in the preceding chapters, designed to ascertain how the Bank might more effectively channel its financial and technical assistance through suitable intermediaries, to benefit the great mass of the urban (and rural non-farm) population, derive from the following assumptions:

(a) that the best means to help the target group is through expanding the opportunities for productive, remunerative employment open to them;

(b) that smaller enterprises typically provide more jobs per unit of investment than larger ones (at least directly, and probably overall, including indirect effects) - i.e. that capital intensity generally correlates with the size of firms;

(c) that the Bank therefore should seek to

(i) direct a larger share of its assistance to SSE,

(ii) utilize a broader spectrum of intermediary institutions to channel Bank funds, and

(iii) devise or adapt new types of programs and financing techniques to reach a wider clientele of subborrowers at the lower end of the enterprise and income scale; and

(d) that considerable opportunities for furthering these ends lie in more effective utilization of

(i) intra-community linkages,
(ii) urban/rural linkages,
(iii) agriculture/industry/service sector linkages, and
(iv) resource allocation/mobilization linkages.

7.02 The program summarized in this final chapter is still highly tentative, in large part experimentsl, in several areas. The number of uncertainties and caveats are spelled out. Nevertheless, there appears to be a realistic potential for the Bank to have a substantial positive impact on urban poverty--in part through direct financial inputs, still more in terms of demonstration effect. But it will require a considerable shift in program emphasis and staff orientation, an intensified operational effort, and--the inevitable consequence and prerequisite for both--a substantial (though not proportional increase in staff numbers.

7.03 In advocating that the Bank give greatly increased emphasis to assisting SSE, including one-man businesses and firms with only a handful of employees, we would caution against an uncritical "small is beautiful" approach. It will sometimes be preferable to foster projects benefiting both small and medium enterprises; these may in some cases, depending on country circumstances, offer

greater potential for furthering industrial linkages, labor productivity and employment objectives than the smallest category. For the most part the benefits of such Bank assistance may be expected to reach the non-farm poor indirectly, fed into an intermediary at the top and allocated to medium or small enterprises, which thereby would be enabled to create new employment opportunities. It will nevertheless be important, insofar as possible, to find ways--project designs, institutions, educational and motivational devices--by which the poor can be involved and play a significant role in the formulation and direction of the programs. Several such programs, to be developed and implemented on a pilot basis through DFCs, are under study and preparation. However, given the paucity of reliable knowledge on how the growth of small enterprise and informal sector activity can be promoted effectively, our approach must be one of practical experimentation, trial and error, for some time to come, before the Bank can prescribe delivery systems which will offer good prospects for successful replication. The experiments will need to be designed with particular care to assure close project monitoring and feedback of experience (para. 6.43).

Targets for SSE and Employment Impacts

7.04 Considerable discussion has taken place among DFCD, the regional divisions in charge of DFC operations and the Industrial Projects staff concerned with industrial estates, regarding the possibilities for implementing specific programs for SSE and employment during the years to come. Given the considerable lead time necessary to prepare innovative projects, most of the activities targeted will start to take shape a year or two hence, and a further expanded effort can be mounted in the 1980-85 period on the basis of experience gained and the intermediaries developed in FY77-80. But already for the earlier period a major expansion of the Bank's financing for, and impact on, SSE development is envisaged.

7.05 The potential (probably maximum) program has been summarized earlier (para 6.36), and also the reasons--mainly financial and manpower constraints--why this potential is unlikely to be fully realized. The following targets, however, are suggested as both feasible and realistic,1/ and are partially independent of the overall lending programmed (amounts are in 1976 dollars):

(a) At least 50 projects or specific project components, involving Bank loans totalling at least $400 million, 2/ directed to small enterprises as defined by local conditions (subject to an upper limit on fixed assets, excluding land, of $250,000). This implies about a five-fold increase in the number of SSE operations and a four-fold increase in the amount of Bank lending as compared with FY73-76.

1/ However, they are roughly 100% more ambitious than the tentative targets contained in the October 23, 1975 report of the Urban Poverty Task Force, (p. 17).

2/ This target includes 4 SSE projects, with loans totalling about $50 million, which the Industrial Projects Department has presently scheduled for FY77-80.

(b) At least 10% (by amount) of aggregate Bank lending to other DFCs to benefit small enterprises, defined as above. This implies a doubling of the past SSE share, which we estimate at about 5% of the amount disbursed to DFCs.

(c) At least 10 experimental projects, with Bank assistance totalling at least $50 million, involving largely new types of intermediaries and technical assistance and/or new approaches such as sub-contracting arrangements, cooperative programs, ~~cott~~ cottage industries or integrated schemes.

(d) At least 25% of the total amount of Bank lending to DFCs to benefit DFCs when sub-projects (either in the aggregate or the portion financed by the Bank) have an average fixed investment per direct job of no more than $15,000.

(e) At least 8 industrial estate projects to support small enterprises, defined as above, with Bank assistance totalling at least $80 million. This also implies a large increase, since during FY73-76 only two such projects were undertaken, with loan assistance totalling $6.3 million.

7.06 The impact on SSE development and on the urban employment problem, that would result from reaching these targets, would depend on the size of the lending programs in these fields during the years in question. The regional DFC units have indicated a DFC cum SSE potential of $4.5 billion for FY77-80. If such an expansion could be undertaken, the financing applicable to targets (i) - (v) above is estimated at about $1.5 billion--i.e. one-third of total Bank DFC and industrial estates lending during FY77-80, equivalent to about 60% of the increase in such lending over the level of the previous four years.

7.07 Whatever the size of the aggregate lending program in this category during FY77-80, it is apparent that its regional composition will undergo a marked change, tentatively projected as follows:

Table 8

DFC Lending Share (%) by Region

	FY73-80	FY77-80	Percentage
Africa	7.6	11.8	+55
EMENA	34.8	18.9	-45
South Asia	16.3	20.3	+25
EAP	22.7	26.1	+15
LAC	18.5	22.9	+24

Substantial increases in relative lending shares would characterize Africa, South Asia and LAC, whereas EMENA's formerly dominant share would decrease substantially in relative terms and EAP would emerge as the leader. This shift is to be expected given the modest beginning hitherto made in Africa and the phasing out of several countries in the EMENA region from Bank assistance.

7.08 How significant, in terms of employment generation, would be a Bank lending program based on the maximum potential and the recommended emphasis on SSE and labor intensive criteria? An attempt is made below to quantify the employment impact, with the caveat that these are guesstimates of the crudest order:

Table 9

Guesstimated Employment Impact Through DFCs

	1975	1985
Non-farm unemployed poor (at beginning of year)	30 million	45 million
Additional poor during year looking for employment	6 million	9 million
Aggregate disbursements by Bank-assisted DFCs	$3.25 billion	$10 billion
Disbursements of Bank loans to DFCs	$ 400 million	$1.5 billion
Aggregate number of jobs generated by DFC-assisted projects	800,000	2,600,000
of which, jobs for poor people	400,000	1,400,000
of which, jobs that can be attributed to the Bank's financing share	50,000	225,000

7.09 The table suggests that, within 10 years, the aggregate number of jobs generated for poor people by DFC-assisted projects might rise from about 400,000 in 1975 to 1.4 million a decade later, a 3-1/2-fold increase. Of these, 50,000 jobs in 1975 and 225,000 in 1985 could be attributed to the Bank's share in financing; i.e. the emphasis on SSE targetted above might yield 4-1/2 times higher employment generation for poor people. These figures, indicating gross orders of magnitude, add up to a respectable "employment contribution" in terms of absolute numbers; but in comparison to the total problem--the numbers of unemployed poor at present and the annual increment of job-seekers from urban and rural areas--the Bank's direct impact, even at a much higher level of lending than in the past, or than is currently programmed, is marginal, providing less than 1% of the jobs needed by unemployed poor people in both 1975 and 1985. For new poor entrants to the labor force the Bank's direct employment contribution would be higher--about 2.5% in 1985, compared to about 1% in 1975--but still marginal. What may be much more important is the potential effect of Bank projects in demonstrating the feasibility of new concepts, in attracting

other resources for their replication, in building up institutions with a dynamic, self-sustaining energy, and in motivating government administrators and community organizations to build and expand on the more promising experiments. These words, the concepts they represent, have no doubt been tarnished by overuse and abuse in the past. Yet they retain an inherent validity, and their realization on a limited scale so far still offers ground for some optimism.

Illustrative Examples of Innovative SSE Experiments

7.10 This optimism, coupled with an effort to identify replicable project possibilities, will be the basis for initiating a series of experimental SSE projects over the next year. A tentative list of such projects, one from each region, is presented.

7.11 Upper Volta. An integrated SSE project is likely to materialize in Upper Volta which would aim at making institutional credit available to the widest possible range of firms, including small housing, road equipment and other civil works contractors, agricultural artisans (operating singly or in cooperatives), quarries, well makers and small service businesses catering to local urban markets.

7.12 The project will seek to design and implement a fully coordinated mechanism to deliver credit and technical assistance (business, management and engineering advice) to small entrepreneurs and will be coordinated within the IBRD to mesh with highway and urban development projects in the lending program. For example, the DFC operation will include a credit and assistance component which will directly support a highway project and which will be specifically allocated to Voltaic civil works contractors, who are in a position to subcontract such work as feeder roads and culverts. Another portion of the loan would be available for housing credit as well as credit and assistance for businessmen located in urban redevelopment sites.

7.13 India. Identification missions are planned, in collaboration with ILO, to review the possibility of developing SSE projects involving primary cooperatives at the community level and secondary cooperatives to integrate the delivery of technical assistance and credit. India seems an obvious case for a first Bank project to develop small enterprise programs using agrobusinesses or industrial cooperatives as delivery systems, given a long tradition from which the Bank can learn about the factors needed to promote the establishment/improvement of cooperative projects in other countries.

7.14 Some states, including Punjab, Tamil Nadu, Gujarat, Rajasthan and Maharashtra, have particularly strong cooperative movements, reinforced by institutions at both the state and national level. At the national level, cooperative organizations dealing with handloom, leather and handicrafts offer opportunities to combine export objectives with assistance to small cooperative enterprises. Other national institutions share considerable experience in assisting agricultural/agrobusiness cooperatives and industrial cooperatives in the jute, fertilizers and oil extraction sectors. On the basis of a reconnaissance mission in April/May it would be decided which type of cooperatives and institutions would be suitable as intermediaries for Bank assistance to small enterprises.

7.15 Philippines. A rural credit program has been initiated as part of the 1974 project for small and medium industries (para 3.08 above). Based on the expertise being built up with this program, an experimental project is envisaged for very small sub-borrowers engaged in home/cottage industrial activities.

7.16 Technical assistance would be provided by the National Cottage Industries Development Authority and financing would be channeled through rural banks and private development institutions which in turn would have access to a Central Bank rediscounting facility. A particular area of investigation, building on lessons to be learnt from an on-going rural industrial cooperative experiment, would concern ways to minimize lending costs and risk associated with hundreds of small loans.

7.17 Egypt. Through its 80 branches the Bank of Alexandria (BOA) has been carrying out an experimental program to assist small businessmen and artisans with loans varying from $250 to $5,000. During the last three years an average 2,000 small enterprises have been assisted annually. In addition, other small borrowers have received financing from BOA through hire-purchase schemes. BOA sees these programs as efforts to help poor families to escape poverty by providing them with small amounts of capital they need to help themselves, and has instituted liberal lending criteria and security requirements. So far, this policy seems to have worked, but small firms are frequently squeezed by large firms which buy their output in bulk at low prices while supplying them with raw materials at elevated prices.

7.18 Given that most of BOA's activities have been concentrated in the Cairo area, there is an opportunity for the Bank to help BOA in its efforts to make credit available in the regions. Even though mostly local currency financing would be involved, there is a shortage of credit for small businesses and the Bank has been invited to help. Innovative project components could include joint facility cooperatives for both purchasing and marketing, (also for exports), hire purchase arrangements for small agro-businesses and sub-contracting schemes between BOA's larger borrowers and small enterprises.

7.19 Colombia. An SSE experiment is under consideration to develop an initial integrated project in an urban center with substantial unemployment problems (e.g. Barranquilla). Target enterprises would encompass a wide range of manufacturing and service subsectors including small artisan shops, retail and commercial outlets providing goods and services to urban consumers, tourism and transport services, low-cost housing, and small construction firms. A project management unit would be established to quantify the size and nature of the employment gap based on present programs and trends; identify unsatisfied demands for goods and services and opportunities to stimulate increased demands; and facilitate the supply of these demands by new or existing labor intensive enterprises through the development and implementation of an integrated system for delivering financial, technical, marketing and training assistance.

7.20 On the basis of experience gained with this initial project, it is planned to develop an analytical, operational and organizational model for mounting integrated programs to generate productive employment opportunities. The model would then provide the foundation for a broader program that would be extended successively to cover other major urban areas in Colombia and elsewhere.

Recommendations

7.21 Apart from the quantitative targets above, the action program proposed in this paper is a combination of specific recommendations which have appeared in earlier chapters. For easier reference they are grouped under the following headings: Poverty and SSE strategy; Policy and procedural adjustments; Studies and guidelines; SSE appraisal reports; Requirements for DFCs; and Organization.

7.22 Poverty and SSE Strategy. We recommend that the Bank

(1) greatly extend its collaboration with international, bilateral and voluntary technical assistance agencies, in particular for projects in the informal sector and others more directly involving the non-farm poor (paras. 3.14 and 6.09);

(2) include in DFC or other industrial financing, a component for the efficient, labor intensive development of technology (para. 4.07);

(3) establish a "technological referral service", initially to be funded by the Bank through a modest grant, to be available to DFCs and small enterprise sub-borrowers, to deal with enquiries on labor-intensive technology, choice of equipment, marketing, management and financial problems, etc. (para. 4.08);

(4) send a letter, signed by the President, to DFCs explaining the Bank's new emphasis, inviting them to utilize the above referral service, inviting their project suggestions for SSE or more employment creative activities (para. 4.09); and

(5) seek vigorously to enlist DFCs' support and initiative for improvement of substandard working conditions in the enterprises they finance, through better project design and appropriate investments (para. 6.34).

7.23 Policy and Procedural Adjustments. We further recommend that the Bank

(6) extend its eligibility criteria for working capital finance, subject to specific justification, to include certain priority needs of shorter term (para. 4.33);

(7) interpret the foreign exchange content in SSE projects, particularly in the informal sector, with maximum flexibility and give sympathetic consideration to financing of strictly local costs in specific cases where it can be explicitly justified (paras. 4.36 and 6.23);

(8) be cost-conscious in programming for SSE projects, emphasizing those with potential multiplier/demonstration effects (para.6.15);

(9) devise simpler evaluation criteria for SSE subprojects (para.6.31);

(10) include in tourism projects, where appropriate, a component for cottage industry/handicraft (para. 4.48);

(11) allow, subject to specific justification, spreads on Bank funds between 4% and 8% for SSE projects (para. 6.19);

(12) allow IDA and Third Window funds to be passed on to SSE intermediaries at below the Bank rate when necessary to accommodate the above spreads, and for IBRD loans help devise appropriate means to provide sufficiently concessional terms to the intermediary to allow the necessary spread (para. 6.19);

(13) establish, as a general policy for SSE projects, that the Government assume (generally against a fee) the foreign exchange risk associated with Bank lending (para. 6.20);

(14) avoid compromising its creditworthiness standards in appraising the suitability of institutions as intermediaries for SSE development (para. 6.22); and

(15) provide DFCs which are to be "phased out" with an adequate and reasonably assured lead-time for seeking funding elsewhere (para. 6.39).

7.24 Studies and Guidelines. We further recommend that the Bank

(16) seek to identify manufacturing and service activities, particularly in SSE, that are suitable or advantageous for decentralized development, with a view to reducing migration from rural to urban areas (para. 4.13);

(17) investigate in depth the factors determining indirect employment effects in manufacturing projects of all sizes (para. 2.18);

(18) identify, and assess the respective strengths and weaknesses of the various technical assistance agencies providing technology referral services to LDCs (para. 4.08);

(19) analyze the relative advantages, in different national and institutional environments, of providing technical assistance for SSE development through DFCs or other financial intermediaries, as against a separate agency (para. 6.10);

(20) analyze systematically, in the light of experience, the costs and risks associated with institutional lending to SSE and possible means of reducing them (para. 6.02);

(21) study the experience of credit guarantee schemes to identify factors affecting their success (paras. 4.39 and 6.11);

(22) analyze systematically, in the light of experience, what types of incentives for SSE development have high potential pay-off (para. 6.02);

(23) investigate patterns of enterprise organization (individual and collective) and assess their effectiveness for promoting SSE development in different environments (para. 5.23);

(24) investigate possibilities for utilizing the "curb-market" as a channel for assistance to the informal sector (para. 4.31);

(25) develop guidelines to focus adequate attention on employment considerations in the allocation of materials under Industrial Imports Credits (para. 4.05);

(26) develop a monitoring system for SSE projects by December 1976 (para. 6.43); and

(27) conduct a comprehensive analysis in FY 1979-80 of all Bank-assisted SSE projects and prepare a Policy Paper on SSE Development by the end of FY 1980 (para. 6.43).

7.25 SSE Appraisals. We recommend that appraisal reports for SSE projects

(28) spell out, as specifically as possible, the objectives to be achieved with SSE operations and a timetable therefor (para.3.19);

(29) fully discuss the adequacy of working capital finance for sub-borrowers (para. 4.33);

(30) analyze the characteristics and policy framework of the SSE "sector" (para. 6.03);

(31) assess the adequacy of technical assistance available and its coordination with credit provision at the local level (paras. 3.14 and 6.10); and

(32) give explicit attention to DFCs' action in improving working standards at borrowing enterprises (para. 6.34).

7.26 Requirements for DFCs. We further recommend that Bank-assisted DFCs

(33) give due weight to employment considerations, including SSE development as appropriate, in preparing their strategy papers (paras. 4.09 and 4.15);

(34) seek to influence and help enterprises receiving finance from them to raise substandard health/safety conditions (para. 6.34); and

(35) discuss, in their appraisal reports for medium/large projects, the alternative technologies which were considered (para. 6.30).

7.27 Organization. Finally, we recommend that the Bank

(36) clarify the locus and scope of responsibilities for SSE and related industrial sector work within the Bank (para. 6.45);

(37) ensure effective coordination between the Bank's departments concerned with SSE projects and research bearing on SSE development (para. 6.45); and

(38) in order to promote effective liaison with technical assistance agencies, establish a documentation center on those agencies and a small SSE library within the DFC Department (paras. 6.45).

EMPLOYMENT CHARACTERISTICS OF RECENT DFC SUB-PROJECTS

In the course of a Special Study series on the developmental impact of DFCs in six countries, information had been gathered on the capital/labor mix of DFC sub-projects (para 2.16). However, all the investment decisions studied then were taken several years ago and with abnormal price increases during recent years, particularly regarding construction and equipment, as well as exchange rate adjustments, it was appropriate to undertake a study based on more recent investment decisions in order to obtain a more realistic picture of the characteristics of DFC sub-projects.

For that purpose a sample of 315 recent sub-projects was studied (almost all of them were submitted to the Bank during FY75). It must be stressed at the outset that the composition of the sample is not representative for the universe of Bank-assisted sub-projects and certainly not for all DFC sub-projects, mainly because over half (178) of the sample projects are "A" projects, i.e. those projects above the "free limit" which have to be submitted for Bank approval. Relatively large projects are therefore over-represented, by default rather than by design, since smaller sub-project submissions contained little or no information on employment effects. Nevertheless, some general conclusions are possible which can be augmented by information from Bank appraisal reports in order to obtain balanced estimates.

Capital/Labor Mix of Sponsoring Firms

For 106 companies information was available on fixed asset/job ratios and on the amounts lent by DFCs to projects sponsored by them. The table below summarizes the results:

Table 1

Fixed Assets/Job ($)	No. of Sub-projects	%	Loan Amount ($ million)	%
Up to 5000	39	37	34.3	20
5000 to 10000	19	18	37.3	21
10000 to 15000	10	9	14.5	8
15000 to 20000	5	5	15.4	9
20000 to 25000	4	4	5.0	3
25000 to 40000	19	18	36.6	21
Over 40000	10	9	31.9	18
Total	106	100	175.0	100

A picture of somewhat surprising extremes emerges: More than half (58%) of the companies show a fixed assets/job ratio below $10,000. They account for 41% of total DFC loan assistance to projects sponsored by them. Relatively few companies show fixed assets/job ratios between $10,000 and $25,000, whereas 27% of the companies (accounting for 39% of DFC assistance) appear to be relatively capital intensive in their operations with a fixed assets/job

ratio above $25,000. (The median value for the total sample is $8,900 for the fixed asset/job ratios, and the median employment per firm is for 220 people.)

To test the correlation between the sizes of firms and the employment created by them, a logarithmic regression analysis was performed which showed a surprisingly good fit (R^2 =.71):

$$Y = 1.56 X^{0.65}$$

where Y... number of employees
X... fixed assets of sponsoring firm in thousands of dollars

The size of the exponent (<1) indicates, as expected, a diminishing rate of employment growth as company size increases above a certain level (see overleaf graph). This is illustrated by the median employment figures for four size groups of companies:

Table 2

	Company Size (Fixed Assets)			
	below $250,000	$250,000-$2 mil.	$2-5 million	above $5 mil.
median fixed assets	$96,000	$943,000	$2,815,000	$6,290,000
median employment	29	192	287	450
fixed assets/job	$ 3,300	$ 4,900	$ 9,800	$ 14,000

Although the small sample sizes for each subgroup do not permit conclusive findings, the above broad orders of magnitude tend to confirm a relative greater labor-intensity of smaller-scale operations and a significantly greater capital-intensity for companies with fixed assets over $2 million.

DFCs Catering to Relatively Small Firms. Given the Bank's recent involvement with SSE few hard data are available as yet but a comparison is possible from two countries (Korea and India) where the Bank has assisted DFCs which cater to different size groups of enterprises (MIB-Korea and SFCs-India assist small firms whereas KDFC-Korea and ICICI-India assist larger borrowers).

Table 3

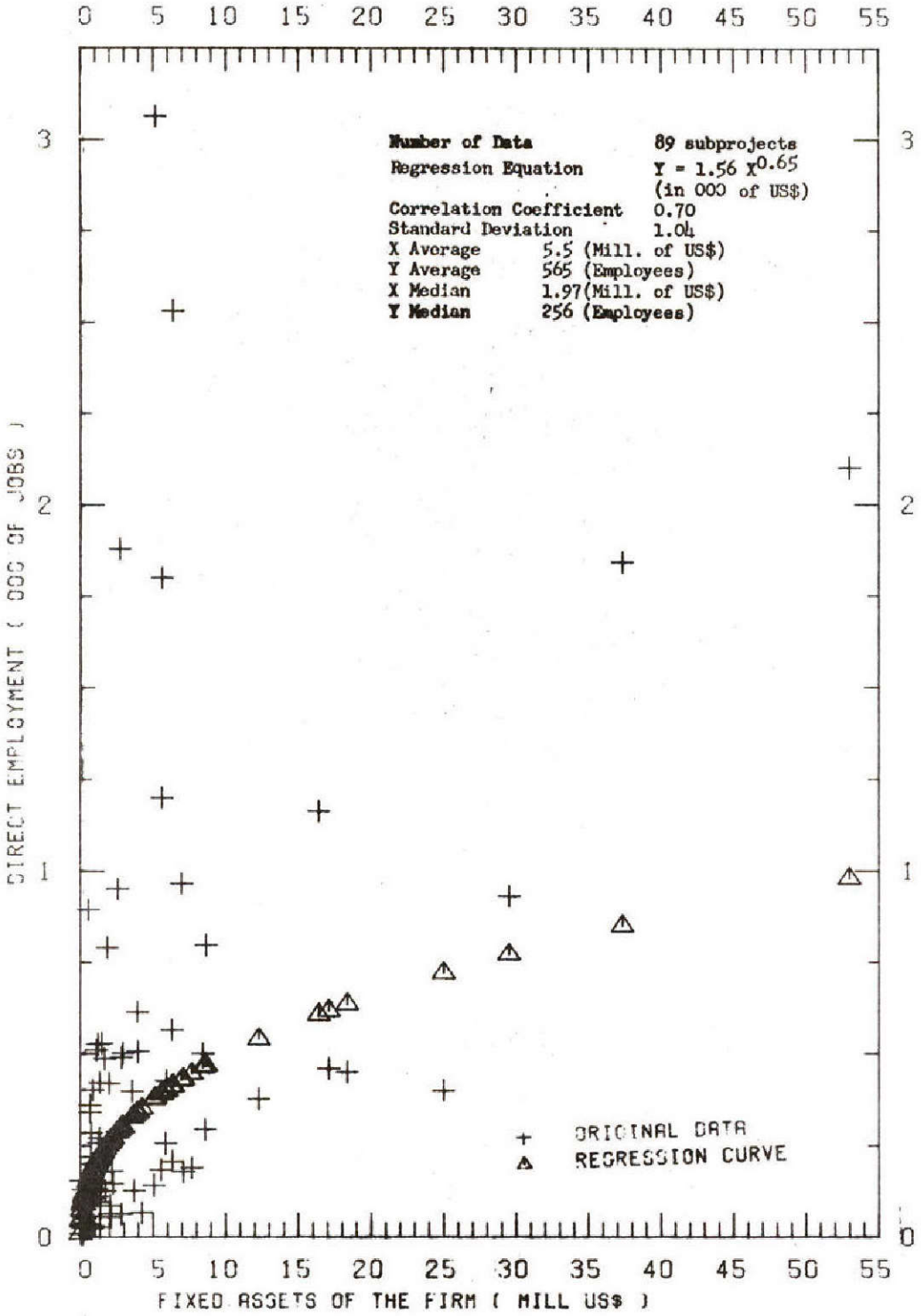
	Korea		India	
	MIB	KDFC	SFCs	ICICI
average fixed assets/ employment	$5,900 1/	$17,000	$4,300	$11,400

These results corroborate the broad orders of magnitude indicated in para 2.15 which illustrate the greater labor-intensity of SSE.

1/ Data from recent analysis by the Asian Development Bank.

GRAPH # 1

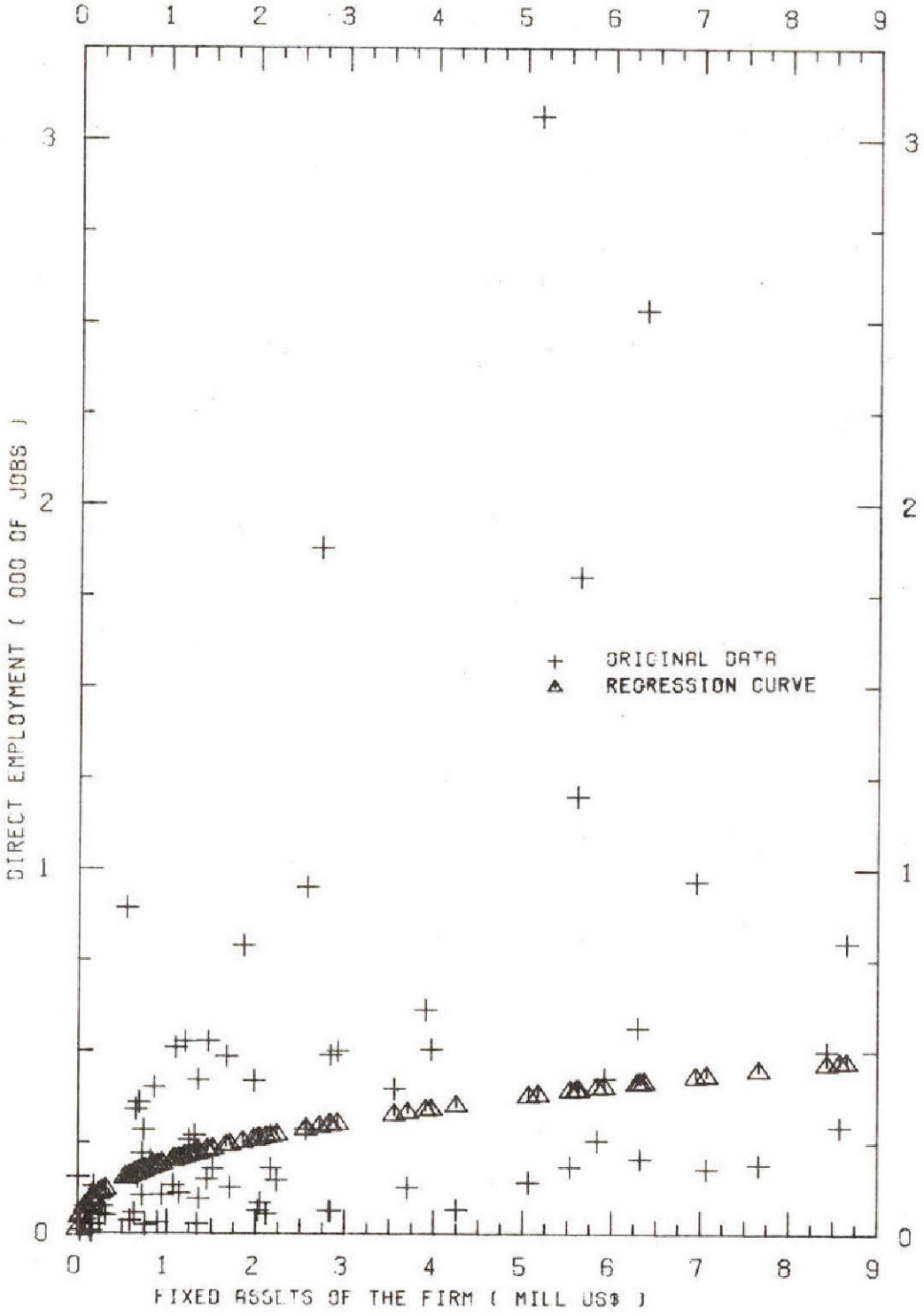
COMPANY SIZE AND DIRECT EMPLOYMENT



(For partial enlargement of this graph, excluding companies above $10 million, see Graph 1A)

GRAPH # 1A

COMPANY SIZE AND DIRECT EMPLOYMENT



Sectoral Comparisons. Many studies have documented significant differences in the labor-intensity of various industrial sub-sectors; we shall highlight the findings of two recent reports and augment them with the results from our sample.

A recent ADB investigation of small/medium firms assisted by MIB (Korea) has found firms with below average assets/labor ratios in the following sub-sectors: electronic assembly, footwear and garments, cutlery, bicycle parts, small metal and wood products. A much larger sample (435 companies) studied by ICICI (India) yielded sector results with below average assets/job ratios for glass and pottery, textiles, machinery manufacture, electrical equipment and food products (sugar excluded). High assets/job ratios characterized chemicals, non-ferrous metal products, cement, automobile and cycles, and pulp and paper.

Our sample yielded the following average fixed investment/job figures (N.B. that these are project-related data; company-related information was not adequate to permit sectoral comparisons): leather and shoewear ($5,400), mechanical parts ($9,300), electrical machinery ($11,500), paper ($11,900), mining ($14,500), metal products ($15,900), textiles ($16,500). Industries with high cost/job ratios include concrete and cement ($41,500), chemicals ($20,500) and hotels ($18,800).

Employment Characteristics of Bank-assisted DFC Sub-projects

For 203 projects data were available on fixed investment/job ratios and on the amounts lent by DFCs. The table below gives the breakdown by fixed cost/job:

Table 4

Fixed Investment/Job	No. of Sub-projects	%	Loan Amount ($ million)	%
Up to 5000	31	16	28.9	8
5000 to 10000	38	19	28.6	8
10000 to 15000	29	14	42.9	13
15000 to 20000	19	9	45.7	13
20000 to 25000	18	9	27.9	8
25000 to 40000	24	12	64.3	19
40000 to 100000	33	16	79.3	8
Over 100000	11	5	26.3	8
Total	203	100	344.1	100

About half (49%) of the projects had a fixed cost/job below $15,000. They accounted for 30% of total DFC assistance extended to the 203 projects. The variation in cost/job ratios for projects is considerably wider than the

range in fixed assets/employment for sponsoring companies. It was found that 43% of the projects had a cost/job ratio exceeding $25,000; they accounted for 50% of DFC assistance to the 203 projects.

These findings are not unexpected since several large projects involved modernization or balancing operations with relatively little employment creation. Although, as mentioned above, the sample is biased towards the larger projects, it can be concluded, however, that most of the Bank's assistance has gone to relatively capital-intensive operations.

The median direct employment generation is for 99 jobs and the median fixed investment/job figure for the sample is $16,350. The incremental cost/job ratio is thus considerably higher than for the firm as whole. This is confirmed by a 1975 study undertaken by ICICI (India) of about 500 companies in its portfolio, which yielded an incremental (project-related) cost/job ratio which was almost three times higher than the fixed assets/employment ratios of sponsoring firms.

As with company size, project size tends to be positively correlated with employment generation, as indicated by a logarithmic regression analysis ($R^2 = 0.7$) similar to the one above:

$$Y = 0.89 X^{0.64}$$

where Y... Direct jobs generated
X... Fixed investment by project in thousands of dollars

The overleaf graph shows diminishing employment generation effects as project size increases; for investments over $2 million the curve flattens increasingly, pointing to substantially smaller employment effects of large projects. This feature is confirmed when comparing project sizes above ("A" projects) and below ("B" projects) the "free limit".

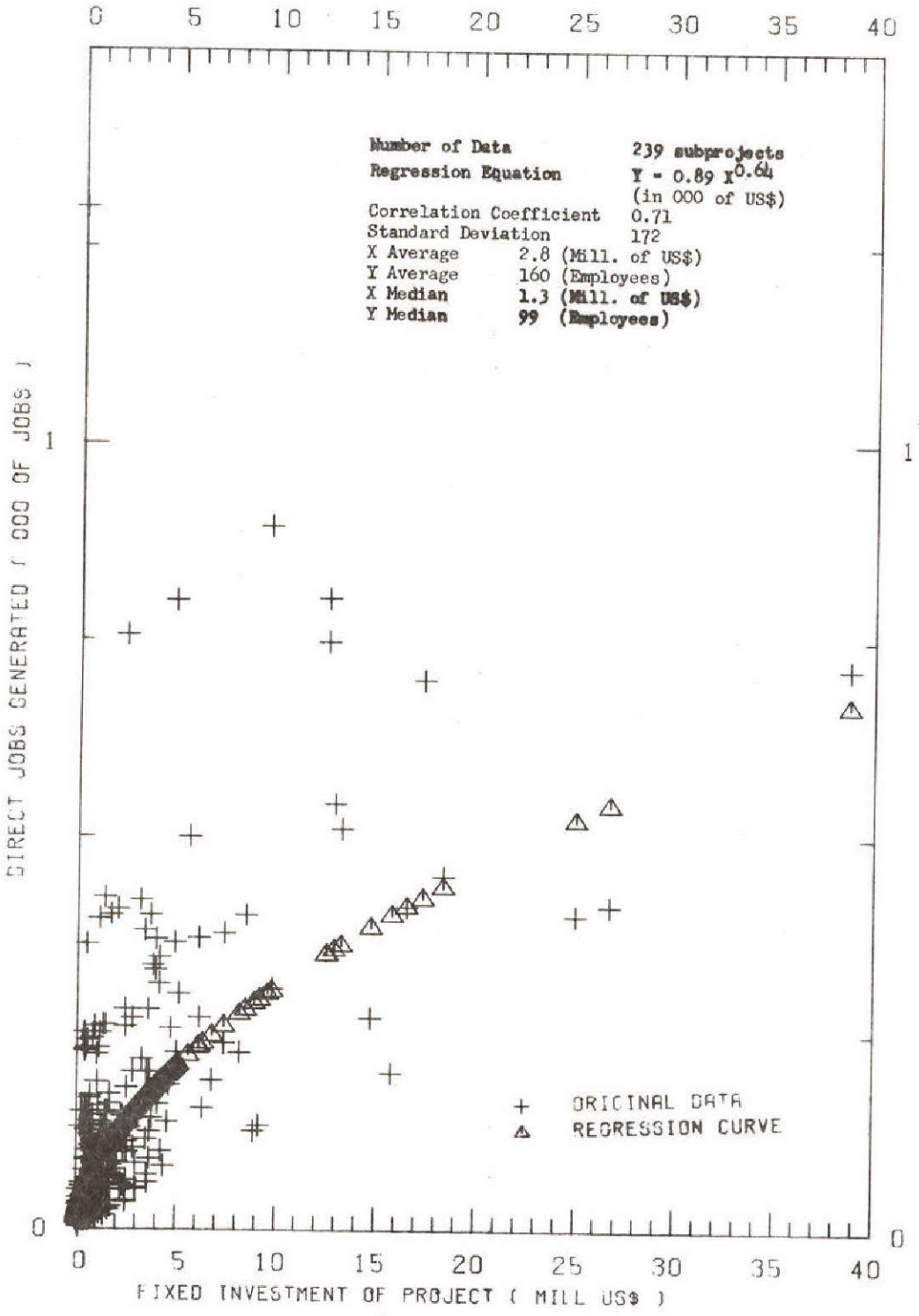
Table 5

	B-projects	A-projects
Number of projects	100	166
Median fixed investment	$730,000	$1,708,000
Median employment	57	100
Median fixed investment/job	$ 12,800	$ 17,080

"B-projects thus showed a considerably greater employment effect than "A" projects. (It should be noted, however, that there is some overlap between the two categories, since DFCs have different "free limits".) We will comment on this further below when attempting to reach a more balanced estimate on the capital/labor mix in DFC projects.

GRAPH # 2

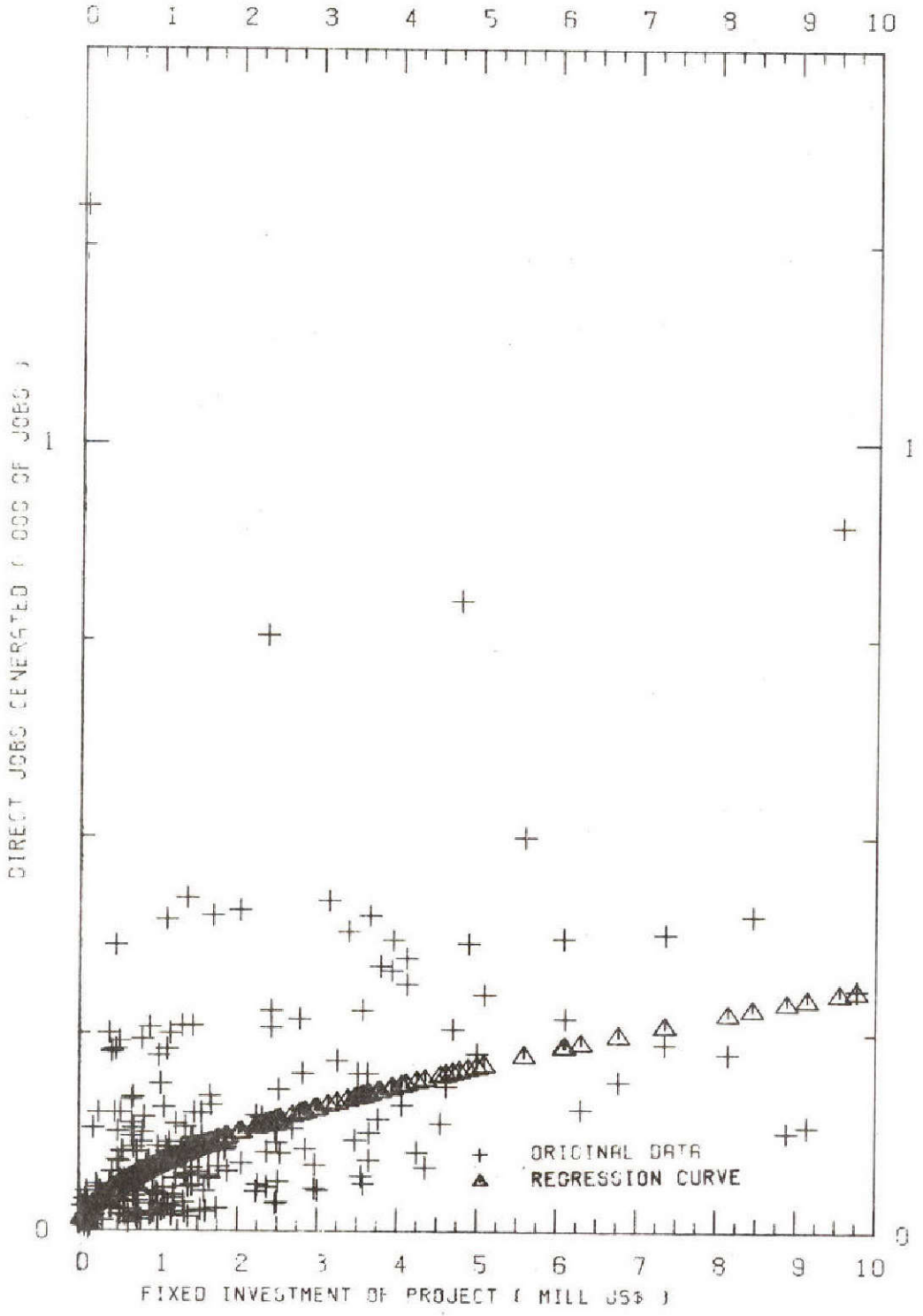
PROJECT SIZE & D EMPLOYMENT GENERATION



(For partial enlargement of this graph, excluding projects above $10 million, see Graph 2A)

GRAPH # 25

PROJECT SIZE AND EMPLOYMENT GENERATION



Regional Comparisons. The table below shows selected median figures by region:

Table 6

	EMENA	LAC	Africa	EAP	South Asia	Total 1/
Number of projects	75	77	28	74	61	315
Median fixed investment ($'000)	1,639	1,079	1,962	1,732	675	1,155
Median number of jobs created	71	62	200	141	101	99
Average fixed investment/ job ($'000), weighted by DFC loan assistance	33,230	28,310	17,490	31,130	17,810	26,810
Median fixed investment/ job ($'000)	19,410	17,580	16,340	15,090	8,500	16,350

The regional comparison shows no pronounced differences in median cost/job figures, except for the high EMENA ratio and the significantly lower South Asia ratio. The latter is, however, influenced by relatively many small projects assisted by the SFCs (India). The last line (average fixed investment/job weighted by DFC loan assistance) illustrates again that most of the DFC's financial assistance has gone to relatively capital-intensive projects.

Skilled and Unskilled Employment. Of considerable importance in studying the employment effect of projects is their demand for skilled and unskilled employment. The latter has, by definition, a greater impact in providing jobs for poor people in urban and rural areas. We found that, on average, 62% of the total employment generated directly was for unskilled jobs with relatively small projects generating an even higher share as follows:

Table 7

	Fixed Investment Cost		
	below $250,000	$250,000-$500,000	over $500,000
Number of projects	5	6	68
Ratio of unskilled jobs to total jobs (%)	75.6	63.2	61.9
Average fixed investment ($'000) per job	2,850	8,280	18,900
Average fixed investment ($'000) per unskilled job	3,760	13,100	30,500

The above results have to be interpreted with considerable caution since the sample contained few projects under $500,000 which had information on unskilled employ-

1/ Of the total number of projects (315), information on employment creation was available for 266 projects. Furthermore, a few extreme and clearly unrepresentative values have been deleted.

ment. Furthermore, definitions of "unskilled" labor have almost certainly varied among DFCs and enterprises. In fact, it would be an important area of research to investigate the demographic features of employment generation. Finally, the data relate to projects, rather than companies, of different sizes but it is logical to expect that small enterprises, particularly those in the informal sector, would also generate, on average, a relatively larger share (about two-thirds as against one-half for larger enterprises) at a significantly lower investment cost. Comparative data for India and Colombia 1/ support this hypothesis.

Project Size and Import Propensity

The DFCs were found to finance, on average, about one-half of fixed project investment. However, for large projects above a fixed investment cost of about $1.7 million the DFC financing share diminished somewhat due to maximum exposure considerations.

A similar relationship emerged when the IBRD contribution was compared with fixed investment costs. The former can be taken as proxy for the share of imported machinery and equipment in fixed investment, although the total import share is thereby underestimated for countries where indirect imports (off-the-shelf-purchases) are significant and for those (mostly large) projects where other foreign financing (direct foreign investment, suppliers' credits et al) is involved. Data on these aspects were not available, however. Nevertheless, a logarithmic regression of the Bank financing share against fixed investment showed already a relatively strong correlation (R^2 = .81) as follows:

$$Y = 4.78\ X^{0.92}$$

where Y... Fixed investment of project in thousand of dollars
X... IBRD loan amount for project in thousand of dollars

The overleaf graph demonstrates an almost linear equation with the Bank financing an import value equivalent to about 21% of fixed project investment. Only for large projects does the Bank share diminish somewhat on average, which is again consistent with maximum exposure considerations. In some cases (for instance, for the private financieras in Colombia) exposure limits were negotiated by the Bank; for most other DFCs they are contained in their policy statements.

If all foreign financing (other than the Bank) could have been captured, the exponent in the above equation would certainly have increased from 0.92 to well above unity, indicating a concave exponential relationship

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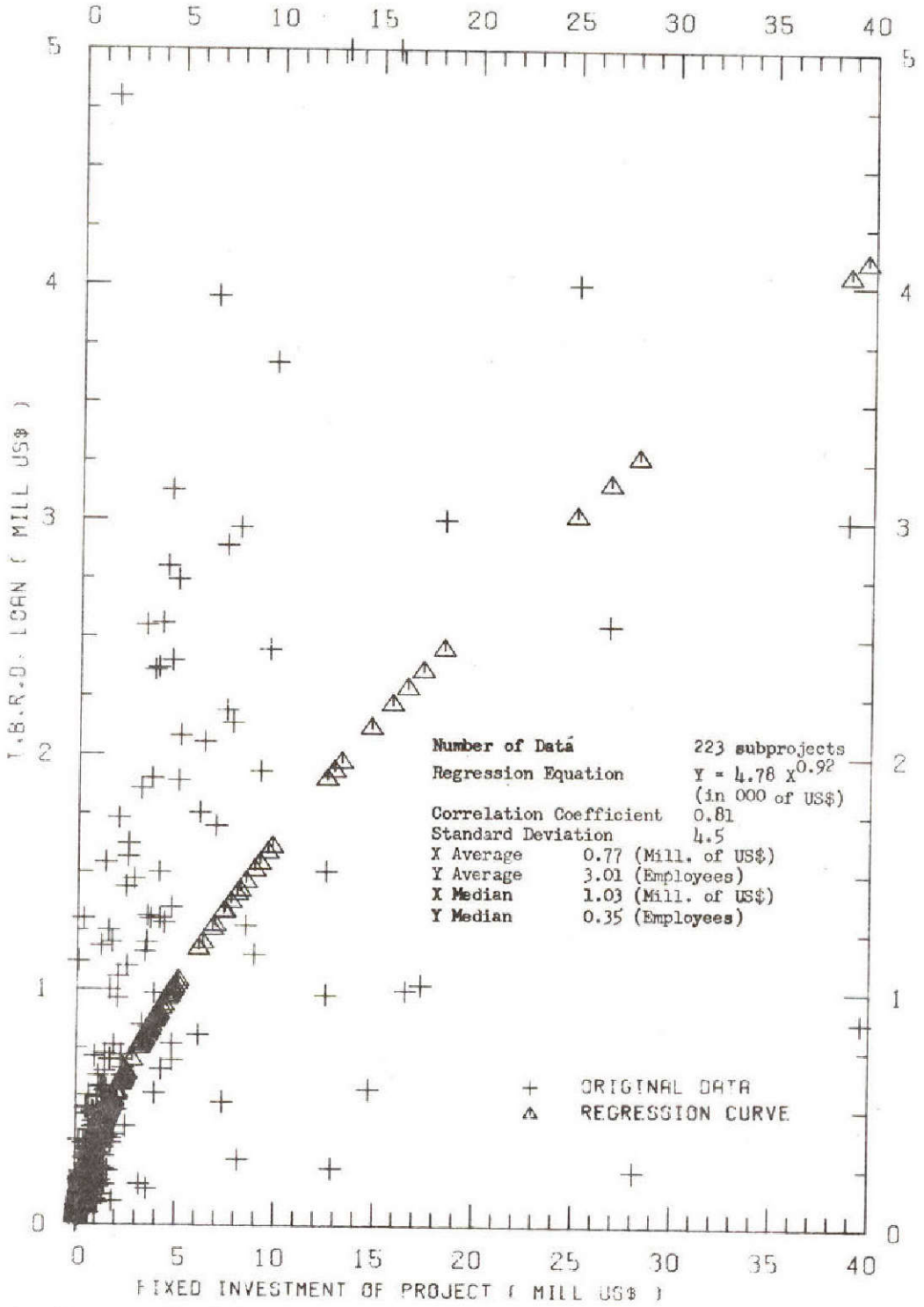
1/ The Colombia Special Study showed a 60% and 50% share of unskilled labor, respectively, for enterprises with assets below and above Col. $35 million. In India, the 1975 study by ICICI on its portfolio showed that unskilled workers account for 44% of total employment in 435 assisted (mostly large) companies. By contrast, subproject data for the smaller enterprises assisted by the SFCs show a 59% share of unskilled workers.

GRAPH # 3

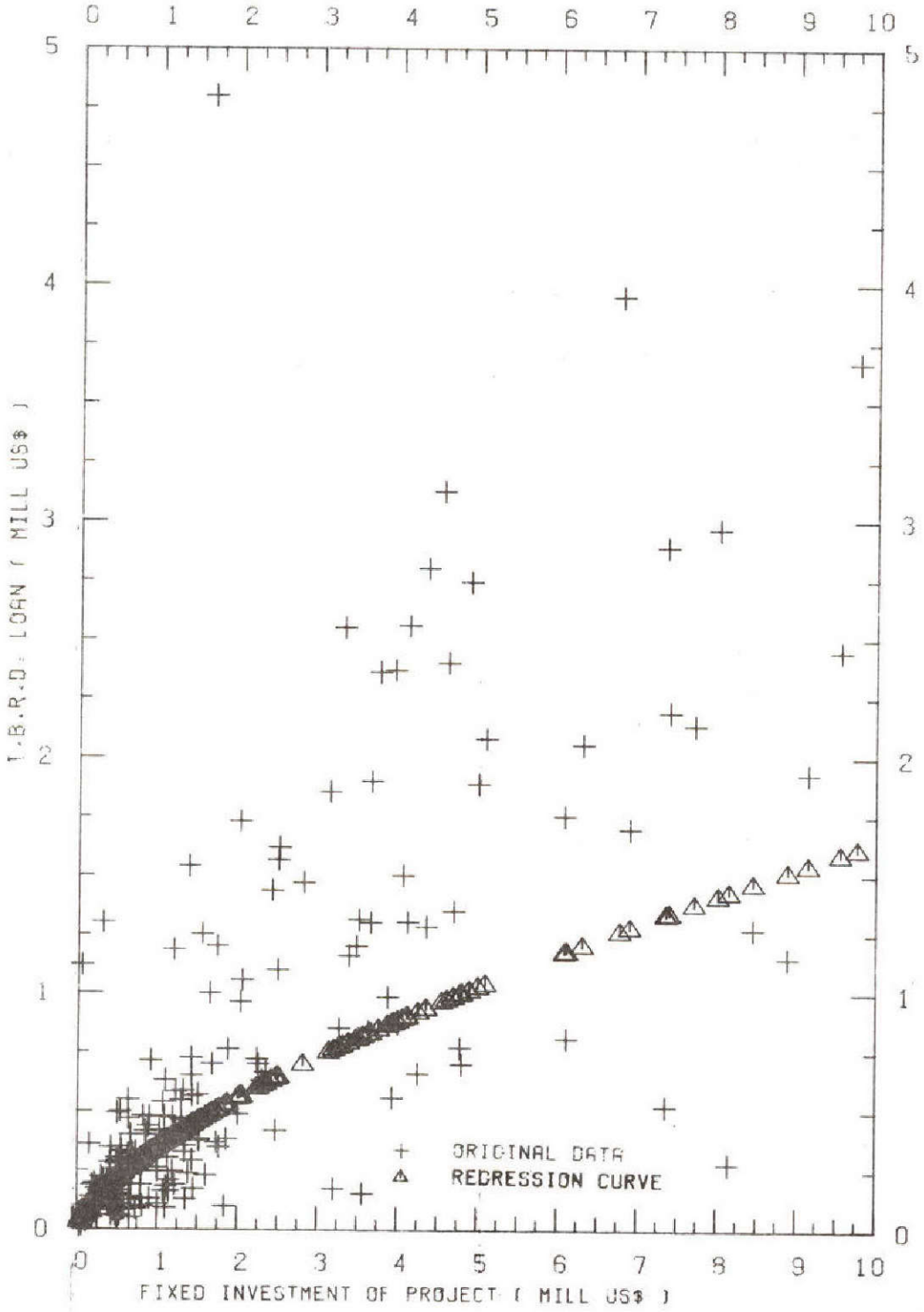
PROJECT SIZE AND SHARE OF DIRECT IMPORTS IN FIXED INVESTMENT



(For partial enlargement of this graph, excluding projects above $10 million, see Graph 3A)

GRAPH # 39

PROJECT SIZE AND SHARE OF DIRECT IMPORTS IN FIXED INVESTMENT



between project size and import propensity. Furthermore, as mentioned above, the sample contained relatively few small firms and no businesses from the informal sector. These enterprises require mostly local currency financing so that, over the whole size spectrum of firms, the import content in fixed investment cost increases progressively with project size. Comparative data for Colombia (where the direct import content in fixed investment was 24% and 45% for small and medium firms, respectively) and India (where the corresponding figures were 16% and 35%) are indicative of this trend.

A similar trend would characterize the share of imports in recurring material inputs for different sizes of firms. The Colombian Special Study yielded that larger enterprises had a 50% higher import component in material inputs: 11% of total material inputs required by relatively small enterprises (i.e. those with employment under 200) were imported, compared to a 18% share for larger enterprises.

Overall Capital/Labor Mix in DFC Sub-Projects

The 315 projects included in our sample yielded a median fixed investment per direct job generated of $16,350. Excluding a few extreme and clearly unrepresentative projects, the average cost/job was about $20,000 and the weighted average cost/job, with the DFC financing share in fixed project cost constituting the weights, was $26,810.

The overleaf table shows selected median values for those DFCs which were represented in the sample by at least 8 projects. There is a wide range among DFCs, from $6,500 to $38,600, in the median fixed investment per job, with 6 DFCs (38%) showing a median value below $10,000 and 11 DFCs (69%) below 20,000. However, several of the DFCs are represented mostly by "A" projects and the resulting median cost/job figures are higher than what the universe of their projects would show.

From Bank appraisal reports of DFCs further information is available which shows the following average fixed cost/job ratios:

PDCP (Philippines) - $27,450 (based on projects approved through 1974)
KDB (Korea) - $18,720 (based on 32 recent projects to be financed by the Bank)
MIB (Korea) - $2,720 (based on 174 projects approved in 1973 and 1974)
MIDF (Malaysia) - $14,700 (based on all projects approved in 1973/1974)
DBS (Singapore) - $8,420 (based on Bank-assisted projects financed in 1973)
CDC (China) - $25,000 (based on 81 projects approved in 1974)

Given the wide range of DFC's cost/job ratios it is difficult to arrive at a balanced estimate of the average fixed cost/job figure (in 1976 dollars) for the universe of projects assisted by the about 70 Bank-assisted DFCs. It is clear, however, that the average is substantially higher than the figure ($10,200) yielded by the Special Study series in six countries. Our best estimates are that the average fixed investment per direct job generated for the universe of DFC-financed sub-projects is about $16,000 for all projects assisted during 1976 and that at least half of them have a fixed cost/job ratio below $8,000.

Table 8

Median Employment Figures for Selected DFCs

Region/Country	DFC	Number of Projects	Median Fixed Investment ($'000)	Median Employment	Median Fixed Investment per Job ($)
LAC					
Colombia	Priv. Fin'as	24	1,342	73	15,710
Ecuador	COFIEC	13	576	24	31,510
Mexico	FONEI	22	1,707	61	38,630
Trinidad/Tobago	TTDFC	9	170	16	10,600
South Asia					
Pakistan	PICIC/IDBP	18	530	130	10,050
India	SFCs	25	648	100	6,570
India	ICICI	22	1,463	125	11,940
EAP					
Thailand	IFCT	17	1,123	126	16,310
Philippines	DBP	12	3,571	227	11,070
Indonesia	BAPINDO	10	1,800	70	19,320
Africa					
Kenya	IDB	8	3,050	219	15,030
Mauritius	DBM	8	1,987	270	15,970
EMENA					
Iran	IMDBI	15	1,547	70	29,200
Turkey	TSKB	20	2,871	137	25,210
Morocco	BNDE	20	1,442	55	20,480
Tunisia	BDET	20	1,106	38	12,170

These estimates are based, in the first instance, on actual data from some 250 Bank-assisted DFC sub-projects (average fixed investment/job of $20,000) as well as from over 350 recent DFC sub-projects (average fixed investment/job of $17,800)1/ which were included in UNIDO's "Scheme for the Exchange of Information on Industrial Projects in Developing Countries." These data are contained in Tables 9 and 10 (overleaf); they have been pooled below in Table 11 to show employment trends with rising project costs:

Table 11

Project Cost and Employment in DFC Sub-projects

Fixed Investment (US$ '000)	No. of Projects	%	Fixed Inv. ($ '000)	%	No. of Jobs	%	Fixed Inv. per job ($)
Up to 500	177	28.2	41,752	1.6	17,247	12.2	2,421
500 to 2000	215	34.2	239,110	9.2	24,476	17.3	9,769
2000 to 10000	184	29.3	801,150	31.0	54,894	38.7	14,595
over 10000	52	8.3	1,506,714	58.2	45,038	31.8	33,454
Total	628	100.0	2,588,726	100.0	141,655	100.0	18,275

The table illustrates a rising capital intensity with increases in the fixed investment cost of projects with extreme values for cost/job ratios of $3,000 for projects with a fixed investment below $500,000 and over $30,000 for projects costing more than $10 million. The average cost/job is $18,275 or about $20-21,000 in 1976 prices.

However, the composition of this sample of 628 projects is not, as pointed out earlier, truly representative of all Bank-assisted DFC sub-projects since relatively large projects are over represented. Unfortunately, no aggregate statistics are available on the size distribution of projects assisted by all DFCs, but we do have some evidence that large projects, involving a fixed investment of more than $2 million, account for only one-half of total DFC-financing.2/ Table 12 shows, on the basis of several Bank appraisal reports on DFCs, our estimates as to the current and projected (1980) distribution of DFC lending by size of projects.

1/ The median and average fixed investment figures of the Bank sample projects were $1.2 million and $3 million respectively; the corresponding figures were $1.1 million and $4.9 million for the 369 DFC projects in UNIDO's sample. The UNIDO sample which contained also non-Bank-assisted sub-projects showed median and average fixed cost/job figures of $10,650 and $17,800, respectively; i.e. although the UNIDO sample included, on average, even costlier projects than those in the above Bank sample, it showed lower cost/job figures.

2/ 46% of the aggregate loan amount from about 8,500 sub-loans made by DFCs in the 1970-72 period involved amounts below $750,000. 54% of DFC lending has therefore benefited large projects with a fixed investment of at least $2 million.

Table 9

Employment Generation of Bank-Assisted DFC Sub-projects

Fixed Investment (US$ '000)	No. of Projects	%	Fixed Inv. ($ '000)	%	No. of Jobs	%	Fixed Inv. per job ($)
Below 500	49	18.9	14,447	1.9	3,036	7.8	4,759
500 to 1,000	50	19.3	36,115	4.7	3,641	9.5	9,785
1,000 to 1,500	40	15.4	48,979	6.4	4,322	11.1	11,333
1,500 to 2,000	25	9.7	41,704	5.5	2,224	5.7	18,752
2,000 to 2,500	17	6.6	39,059	5.1	3,054	7.8	12,790
2,500 to 4,000	29	11.2	94,052	12.4	5,100	13.1	18,442
4,000 to 10,000	32	12.3	190,867	25.1	10,630	27.3	17,956
Over 10,000	17	6.6	296,564	38.9	6,900	17.7	42,980
Total/Average	259	100.0	761,787	100.0	38,957	100.0	19,555

Table 10

Employment Effects of Different Project Sizes
(UNIDO Sample of DFC Sub-projects)

Fixed Investment (US$ '000)	No. of Projects	%	Fixed Inv. ($ '000)	%	No. of Jobs	%	Fixed Inv. per job ($)
Up to 500	128	34.7	27,305	1.5	1,211	13.8	1,921
500 to 1,000	49	13.3	37,146	2.0	5,599	5.5	6,634
1,000 to 1,500	25	6.8	29,479	1.6	3,682	3.6	8,006
1,500 to 2,000	26	7.0	45,687	2.5	4,958	4.8	9,214
2,000 to 2,500	12	3.2	27,742	1.5	1,665	1.6	16,661
2,500 to 4,000	42	11.4	139,697	7.7	15,635	15.2	8,935
4,000 to 10,000	52	14.1	309,733	17.0	18,810	18.3	16,466
Over 10,000	35	9.5	1,210,150	66.2	38,138	37.1	31,731
Total/Average	369	100.0	1,827,211	100.0	102,698	100.0	17,792

Table 12

Distribution of DFC Lending by Project Size

Fixed Investment (US$ '000)	Average Cost/Job (in 1976 US$)	Share of Aggregate DFC Lending 1976	1980
Up to 500	3,000	10%	25%
500 to 2000	11,000	40%	40%
2000 to 10000	16,000	35%	25%
Over 10000	37,000	15%	10%
Weighted average fixed investment/job		$15,855	$12,850

Projects costing less than $2 million constituted already two-thirds of the total number of projects included in the above sample of 628 projects. It can therefore be stated with confidence that at least two-thirds (probably three-fourths) of all DFC-assisted sub-projects have a fixed cost/job ratio below $11,000 and that at least half of all projects show a cost/job relationship below $8,000.1/

Given some uncertainty about the distribution at the upper end of the project size spectrum, the overall estimate as to the fixed cost/job ratio in total (Bank and non-Bank-assisted) DFC lending is more tentative. Our best estimate is that DFC sub-projects as a whole would show a fixed investment/direct job ratio of about $16,000 in 1976.

There is a further reason why this estimate has to be regarded as tentative: detailed information on recent DFC clients was not available. Some of them (for instance DYB-Turkey and BAD-Algeria) assist predominantly large clients; other recent DFCs (for instance CFP-Colombia, BIDI-Ivory Coast and BCD-Cameroon) assist small enterprises. It is possible that their combined effect would tip the scale in favor of relatively capital-intensive projects so that the $16,000 figure may be an underestimate. On the other hand, if the increased emphasis on SSE development in DFC operations materializes, an average cost/job figure below $16,000 (in 1976 prices) should result by 1980.

As shown above in Table 12, if the share of projects costing under $500,000 increases to 25% (with corresponding decreases in the share of larger projects above $2 million), an average fixed cost/job of about $13,000 (in 1976 prices) could emerge in 1980. In this case it would then be likely that the median fixed /job figure would drop to about $5,000, i.e. half of the total number of sub-projects assisted would have a cost/job ratio below $5,000.

1/ The average loan amount in the 1970-72 sample of 8,500 loans was $210,000. A conservative estimate would put the median project size (fixed investment) in the $500,000-$1 million range. The fixed cost/job for this project size (calculated from Tables 10 and 11) is about $8,000.

SELECTED BANK-ASSISTED SMALL/MEDIUM ENTERPRISE PROJECTS

(Summaries)

Industrial Projects Department

Pakistan

The IDA credit to Pakistan in 1962 for $6.5 million represents the Bank Group's earliest explicit attempt to stimulate SSE investment. The project includes the purchase and development of two estate sites as well as support for industrial consultants to assist in managing the estates and appraising estate located investments. Continuing technical assistance to firms after appraisal is provided as part of an ongoing government program, coordinated through the estates. The objective of the project as described in the appraisal report was one of modernizing existing firms to increase productivity and output. Entrepreneurs themselves were to pay for factory sites and machinery but were given long term credit to do so, as well as advice on obtaining credit for working capital needs. The project encountered significant disbursement delays, and the one industrial estate located relatively further away from the urban center suffered from a lack of viable investments and was far from successful. Nevertheless, it was demonstrated that small industries could be assisted if credit arrangements are relatively straightforward, investment appraisal techniques sound and industrial estates are set up near natural markets.

Pakistan/Bangladesh

Before the separation of Pakistan's Eastern Wing and the formation of Bangladesh, IDA had approved a $3 million credit to the East Pakistan Small Industries Corporation (EPSIC), a government agency established to set up and manage industrial estates, provide and coordinate technical assistance to borrowers and arrange for (and provide in a limited way on its own) finance. The IDA credit, although including assistance for industrial estate management was fundamentally a credit project designed to meet the foreign exchange needs of entrepreneurs. At the time of the war, the credit was two thirds committed but only a small amount had been disbursed. After the war the project was reactivated (December, 1972), although the effects of organizational changes effecting the delivery of technical assistance to subborrowers and in the commercial banking sector were not entirely clear. In the reactivated credit technical assistance to the borrower was largely eliminated. Under the original scheme the central bank rediscounted 75% of loans made by commercial bank under the program. In the case of default the commercial banks and EPSIC shared equally the risk. This plan was retained under the reactivated credit, although the commercial banks had been nationalized and consolidated.

Yemen

The objective of IDA's industrial estate project in the Yemen Arab Republic, which was assisted by a $2.3 million credit in FY1975, was primarily to demonstrate modern industrial techniques to small businessmen and craftsmen. In addition to the physical development of an industrial estate and the

necessary institutional arrangements associated with it, the credit provides for technical assistance to the estate authority and sub-borrowers as well as long-term credit through the majority government owned Yemen Bank for Reconstruction and Development (YBRD). In addition to the normal public utilities provided in industrial estates, a common repair facility is to be provided. Long-term credits from the government controlled development bank (previously unavailable in Yemen) would be available only to entrepreneurs with projects approved by the estate authority.

Indonesia

An industrial estate being constructed on the outskirts of Jkarta received support in the form of a $16.5 million IDA credit in FY1974. The project is a standard industrial estate operation designed to reduce costs of services to industrial firms and speed the implementation of investment projects. Most of the firms expected to locate on the estate are large joint ventures. The small scale enterprise component of the project, although small in itself, takes account of the fact that SSEs require help as part of a broad program providing standard factory buildings, credit, and technical and management assistance. Although the project does not include a credit component specifically for SSE (or other firms for that matter) an estate located office is established to assist firms in negotiating credit from existing sources, as well as providing help in production techniques, market surveys, etc.

Nigeria

This project ($30 million loan in FY76) is in support of an overall SSE "sector" development policy formulated by the Government to be carried out over five years. The scheme is interdisciplinary in design, building on NPD's experience with industrial estates, but including important training and credit components. Coordination of the project's technical assistance components (to subborrowers and estates) and the credit portion will be undertaken by a strengthened Small Industries Division of the Federal Ministry of Industries. The project, which is innovative in both its geographic and institutional scope, should have a significant impact on SSE's growth of performance. Immediate objectives are institutional (training institutes, financial intermediaries and industrial estates) in support of the longer range objectives of industrial dispersion, job creation and localized industrial development.

Other

Four other NPD projects have had an impact on small enterprises, although for different reasons each has certain atypical aspects. The Mauritian industrial estate project, for example, supports small and mediumaized exporting firms in the modern sector. Although certainly in tune with Mauritian needs, the situation is not a typical one, there being few countries with excess cheap skilled labor, situated on major trading routes. Similarly, the industrial estate component of a Nicaragua project meets a different type of need and focuses on rehabilitation of preexisting firms. Tanzania's industrial estate project has a very small component for small firms (10%) and the small and medium scale mining credit in Bolivia finances credit to a very particular type of consumer, small but independent mine owners.

Development Finance Companies

India

The SSE project in India was the first of its type done by a DFC division (December 1972). It is conventional in its primary concentration on institution-building goals but unconventional in that it involved 18 state-level institutions, thus aiming Bank assistance at regions and a size-class of enterprises that have previously not been touched by this Bank's industrial assistance. The fundamental objective of the project (and in a repeat project in FY76) was therefore to meet quickly and efficiently the financial needs of small and medium enterprises. Reflecting this objective, and because of the federal nature of India, the project relies on a two-tier, or "apex", approach for making credit available. The Industrial Development Bank of India (IDBI), a fully owned subsidiary of the Central Bank received a $25 million IDA credit for on-lending to 18 State Financial Corporations (SFCs). This approach enabled the Bank to address the institution building needs of the SFCs, which are critical to effective credit support for SSEs, through IDBI, which deals with them on a regular basis through a refinancing/rediscounting mechanism and supervision. 75% of the country-wide operations of SFCs is for small-scale industry, but they are only marginally involved in mobilizing business and engineering assistance for small Indian entrepreneurs. In view of the formidable institution-building task of the Bank, and in view of the fact that technical assistance to SSE is available from a wide variety of sources, the Bank concentrated on financial delivery to ease the traditional problems small entrepreneurs had faced with untimely provision of credit. At this juncture, however, the specific technical needs of SSE are being reviewed and future SSE operations in India foresee a close integration of credit and technical assistance.

Cameroon

The SSE project in Cameroon ($3 million IDA credit in 1975) relies on a majority government-owned DFC as the credit intermediary. However, both the Government and the Bank recognize that reaching SSEs successfully requires more than financial and operational support for the DFC, and in fact, the original request of the Government for Bank help was not for credit but for help in providing technical assistance to subborrowers. More than in India, the bottleneck is not lack of financial resources, but also management and business failings. As a result, delivery of technical assistance to Cameroonian subborrowers as well as to the financial intermediary was seen as critical by both the Bank and local authorities. Operating on the assumption that assistance to subborrowers should not be supplied by the financial intermediary itself, but by one or more of the three existing organisms, the Bank sought to coordinate the grabbag of programs offered by these groups. Furthermore, two other project components are worth highlighting. First, the government for its part is firmly committed to support SSE, seeing such support as an important part of its overall industrial sector policy. In line with this commitment, the government has rationalized the system of incentives for small businessmen, and make an attempt to speed decision-making on application for these inventtives. Second, in recognition of the risk involved in promotional work with SSE, a fund guaranteeing up to 80% of loans to SSE firms by the DFC and local commercial banks was established on the basis of central government support and a levy on the profits of commercial banks.

Philippines

The Philippines SSE operation ($30 million in FY1975) is probably the most complex such DFC operation to date. The loan was made in response to a direct government request to improve, for small entrepreneurs, access to institutional credit and technical assistance to solve day-to-day operating problems. Because a wide variety of Philippine institutions exist to provide credit and assistance to SSE and because of a need to have a broadly-based geographic impact, the project has four quite distinct components. Included are (i) a $15 million component for on-lending to SSE by DBP, a wholly owned government DFC; (ii) $12 million for a fund guaranteeing up to 80% of loans made by commercial and private development banks; (iii) $2.3 million for on-lending to rural industrial cooperatives through the rural electrifications authority; and (iv) $700,000 of direct Bank support for regional technical assistance centers. National coordination of all assistance to small entrepreneurs in the Philippines is carried out by the Commission on Small and Medium Industries in the Department of Industry. Most important financial intermediaries (including two supported by the Bank) are represented on this commission, and field operations are carried out by fifty action teams and at seven Small Business Assistance Centers. These latter centers are supported through the technical assistance financed by the Bank.

Ivory Coast

The request of the government of the Ivory Coast for a small enterprise project stemmed from the government's desire to upgrade the operations of the local technical assistance agency, Office de Promotion de l'Enterprise Ivoirienne (OPEI). In addition to strengthening this organization and its capabilities the project provides financial assistance ($5.6 million in 1975) to a local financial intermediary, Credit de la Côte d'Ivoire (CCI), for on-lending to SSE. The IBRD funds are designed to finance the foreign exchange costs of projects, while local commercial banks meet the working capital requirements. Estimated financial and economic rates of return for the firm to be assisted in the project (largely bakeries, wood-working operations and garages) range between 25% and 33%. Approximate allocations of the cost of technical assistance to individual subprojects reduce these rates of returns significantly, although they still remain above 12%. Similarly, adjusting for the cost of assistance raises the average cost per job generated from $5,700 to $8,700.

Colombia

The $5.5 million Bank loan (1974) in Colombia has as its central objective alleviating the twin constraints for SSEs of insufficient access to credit and the need for technical assistance. Project components include $5 million for on-lending to small firms to meet the foreign exchange cost associated with investment and $500,000 to finance technical assistance to the government-owned financial intermediary (CFP) and to subborrowers. In connection with its normal credit operations CFP agreed to increase its technical assistance efforts to help its clients. In addition, since many potential clients require extensive help (especially technical and management advice), Bank funds are also available for technical assistance credits to entrepreneurs, usually for the services of Colombian consultants, including universities, private consultants, and government-supported groups.

Korea

IBRD's $30 million loan (1974) to Korea's Medium Industry Bank (MIB) covers mainly modern, medium-sized firms, but is also expected to have a significant impact on smaller companies as well. The relatively well modernized SSE subsector in Korea represents an important part of the full industrial sector and has received extensive and well conceived government support. MIB, which is fully government owned, is the financial intermediary designed specifically to meet the needs of the smaller to medium sized firms. As a well-run and sound organization it has developed, along with the government's program of assistance and incentives, an in-house technical assistance capability which provides help in solving operating and management problems, training courses, publications and some help in preparing feasibility studies.

International Finance Corporation

IFC's first small/medium enterprise project ($2 million in FY76), prepared by its Capital Markets Department for Kenya, relies on the existing commercial banking system of Kenya to provide both credit and basic managerial advice to small and medium entrepreneurs. The objective of this first project in Kenya is to provide a package of needed inputs to small entrepreneurs, while at the same time developing an approach which is applicable in other countries.

Commercial banks are already involved in the small-scale sector, providing working capital loans. Geographic spread is wide, with continuous contact with consumers. IFC wanted to use a set of flexible institution, already in place, but separate from the Government. To meet the needs of small businessmen in Kenya, IFC anticipates lending to them directly roughly 70% of the loan amount needed. The commercial banking partner will both administer the IFC loan and lend the residual 30%. (Loans will cover both fixed asset investment and working capital). Non-financial assistance to the borrower will be provided by the commercial institution on a self-liquidating basis and is pitched at a fundamental level (basic book-keeping, marketing and planning). Engineering and technology assistance to small/medium enterprises is not included in the project.

ANNEX 3

TECHNOLOGY REFERRAL SERVICE FOR LABOR-INTENSIVE PRODUCTION AND PRODUCT DESIGNS IN DFC SUB-PROJECTS

(Proposal)

Access to technological information on alternative project and product designs is critical to translate a commitment toward greater labor intensity in DFC sub-projects into action. A number of agencies (among them the Georgia Institute of Technology Development Group--ITDG--in London, the Canadian Industrial Development Research Center, and the US-based TECHNONET and the Volunteers in Technical Assistance--VITA) have been providing this type of information for some time. But there is a need, on one hand, to integrate DFCs and their clients into this information system, and, on the other, to tailor the system to the specific needs of DFC clients, be they small borrowers or larger enterprises, seeking advice on complex technological problems for which answers are not locally available or wanting to make use of more labor-intensive technologies which have been successfully employed in other countries with similar resource endowments.

The Bank has held initial discussions with two institutions--Georgia Tech and ITDG--to determine their interest and suitability for a "technology referral service" for DFCs and their clients. Meetings with other agencies will take place in the near future in order to choose the most suitable institution(s). What is, however, proposed at this stage is Bank agreement in principle toward the establishment of a technology referral service for DFC sub-borrowers, initially to be financed by the Bank for two years with an outlay of about $50,000 for FY77 from the DFC Department consultancy budget. The Bank would pay the referral institution(s) a maximum of $75 per inquiry, with reimbursement claimed with the filing of quarterly reports. A $50,000 drawing account would permit about 1,000 responses (they are expected to cost $50 on average) or about 15 per active DFC.

The grant amount to be earmarked by the Bank for this service in FY78, and the mix of institutions which would provide the technology referral service during FY78, would be determined in the light of experience during the first year. This is planned as a two-year experiment through FY78. If successful, it should continue thereafter on a self-sustaining basis, financed by the DFCs, their clients, and/or contributions by donors.

The information network would work as follows. A DFC client facing a technical/technological problem in project planning, production or product design, which a local technical support agency cannot solve, can pass it on through the local DFC to the institution(s) chosen by the Bank. In particular, it is intended that the technological referral service be utilized for enquiries concerning labor-intensive production processes and product designs. All sizes of DFC clients would have access to this service. The technology referral institution(s) would pass on their responses to the DFC which in turn would relay them to its client and/or his local technical support agency.

Critical to the success of the technology referral service will be a speedy feedback to inquiries. The institution(s) chosen by the Bank would undertake to respond within 15 days from the receipt of information requests. Depending on the nature and completeness of the inquiry the response would be either (i) final, or (ii) a request for clarification, or (iii) an indication when a final response can be expected or (iv) when the cost of handling the inquiry would exceed $75, an estimate of the cost since the DFC or its client would have to pay the excess over $75.

As mentioned above, discussions toward a technology referral service have been held with Georgia and ITDG. They are described below.

Georgia Institute of Technology

Georgia Tech is well qualified to handle the bulk of responsibility of this information service. Its Engineering Experiment Station is an applied research organization and the education and experience of its staff, numbering over 300 full-time scientific, technical, and administrative personnel, cover the spectrum of applied science, engineering, economics, operations research, and systems analysis. When necessary, this expertise can be augmented by personnel from the academic departments of Georgia Tech. The EES operates on a project basis using multi-disciplinary teams as required, and several of its departments, described below, would be involved in this referral project.

The first is the Industrial Development Division of EES, now known as the Economic Development Laboratory (EDL), which would be principally responsible for Georgia Tech's part in the technological referral service. EDL has been in existence almost 20 years, performing applied research in the economic development field in Georgia and in the Southeastern United States, and for the past dozen years internationally. It has conducted a large number of projects in this period, worked at problem solving with about 4,000 companies, and published a large number of reports on its work. The main focus of the Division has been employment generation, the strengthening of existing industries, and the creation of new industries. Its work won it an institutional grant from the U.S. Agency for International Development to conduct a five year program of industrial research, training, and linkages aimed at employment generation and small-scale industry development in developing countries.

Through its work overseas the staff has accumulated some 150 man-years of development experience in social, industrial, and economic working areas. This experience has been acquired in some 30 countries and includes efforts on all continents. The staff has worked with most of the major international development assistance institutions, as well as many universities, foundations, and private enterprises. The Tech people presently interact with such organizations as the East-West Center in Hawaii, the International Rice Research Institute in the Philippines, and OECD in Paris, and such universities as Cornell, MIT and Arizona. In developing countries they have established information centers to provide the technology and industrial data required by small and medium enterprises. Prior to the USAID grant, Tech had already established centers in Tegucigalpa, Honduras; Valencia, Venezuela; and Paraguay in such cities as Asuncion, Villarrica and Concepcion. Assisted by the grant it is presently working with information centers in Korea, Ghana, Nigeria, Kenya, Brazil, Ecuador, and the Philippines. These counterparts include universities in Korea, Nigeria, the Philippines, Ghana and Brazil.

The EDL is presently staffed by 45 professionals and 30 technical, clerical, and support personnel and operates from a headquarters office in Atlanta and from a statewide network of field offices. Educational and experience background of the professional staff includes four fields of engineering, economics, community planning, business administration, library science, agricultural economics, business education, teaching, research administration, industrial relations, management consulting, supervisory training, public administration, and a variety of other discipline. Besides, from its specific international work in stimulating small-scale industries, it is also currently involved in such programs as community and area development, management and technical assistance to business and industrial firms, industrial and economic development training, solar energy research, economic uses of industrial wastes and adaptive technology research and development. A quarterly newsletter "Small Industry Development Network", which is available free of charge and has a distribution list of 1,400 institutions, reports on recent developments.

In addition to this staff experience and collection of scientific and technical publications in the Tech library, the International Development Data Center is an important resource which supports the international activities of EDL through information collection and linkage with outside information sources. The main concentration is on small industry development in developing countries, employment generation, intermediate technology, economic development, and technical assistance. The staff of IDDC are responsible for assisting the developing of data centers in the EDL counterpart institutions' programs. Currently, the collection contains over 3,000 pamphlets and books, 125 directories, and 250 serial titles. The IDDC staff compiles bibliographies and directories and publishes a monthly current awareness item, "The International Informer," which identifies new acquisitions.

Between Tech and its interlinked on-line data bases, there are about 8 million citations which can be searched. The average cost for handling an inquiry would be about $50. However, the cost of information services can vary widely depending on the complexity of the enquiry which may necessitate considerable use of computer time. In the past, staff time required to respond to inquiries and requests varied from a few minutes to 10 days of effort (during 1975, 1900 inquiries were handled). For example:

1.	Copy of a patent	30 minutes	$ 5.00
2.	Price and volume used of activated carbon in Japan	2 hours	30.00
3.	Industrial uses and processing of mangoes	6 hours	75.00
4.	Potential uses of flyash produced by electric generating station in Brazil	5 days plus computer search	550.00

The Georgia Tech library is an essential asset for all technological reference. It has an outstanding collection of scientific and technical publications, including over 350,000 bound volumes, 63,000 technical reports, and 300,000 microtexts. Some 10,000 serial publications are currently received in addition to annual transcriptions and proceedings of the principal scientific and professional societies in America and abroad. The patent library has a complete file on all U.S. patents and accompanying drawings issued since 1946, and other reference literature on patents.

Other components of the Engineering Experiment Station for technical inquiries in particular areas include:

1. Applied Sciences Laboratory. This laboratory has extensive programs in energy sources and materials, nuclear and biological sciences, physical sciences, instrumentation and solid state devices.

2. Productivity and Technology Applications Laboratory. This unit has strengths in resource utilization, including agricultural, industrial and municipal waste utilization, private and public sector productivity; and in machine, tool, and methods improvement.

3. Systems and Techniques Laboratory, Applied Engineering Laboratory, Electro-Magnetics Laboratory, Electronics Technology Laboratory, and the Nuclear Research Center are other EES units capable of inputting to the referral service.

ITDG

The Intermediate Technology Development Group, London, was established in 1965 in order to investigate ways and means of utilizing to the fullest extent the resources available to developing countries through the application of technologies which are "appropriate" or "intermediate" in their existing circumstances. The Group's resources of manpower are limited because of its limited funds, but nevertheless it has to its credit a great deal of work in the United Kingdom and overseas. It deals with a wide range of technical inquiries and provides information on appropriate technologies through a varied list of publications. It also responds to requests from developing countries to send teams of experts to advise on specific technical problems or on the general applicability of the principles of appropriate technology to their development programs.

The Groups objectives are to:

(i) compile inventories of existing technologies which are used, or might be used by developing countries, within the concept of low-cost labor-intensive production;

(ii) identify gaps in the range of technologies and the production opportunities which could be created if these gaps were filled;

(iii) research and develop new or more appropriate processes, by invention or modification;

(iv) test and demonstrate the use of intermediate technologies in the field and to advise and assist governments and organizations on their adaptation; and

(v) make known the results of its work as widely as possible, by publication and other means, so as to facilitate the transfer of intermediate technologies in appropriate circumstances.

While ITDG sees a prime need for research and development of appropriate technologies within the agricultural sector, it recognizes the corresponding R&D needs in the areas of food-processing, light industry, and other agro-industry.

ITDG panels in England are an important feature of the Group's organization enabling it to draw on the expert knowledge of more than 200 people. In addition to supervising research which they have initiated, members of the panels also respond to many inquiries, mainly from overseas, on technical matters. They also provide the personnel for overseas consultancies. There is a close relationship between the work of the panels and that carried out by the ITDG technical officers. Panel members help to develop their work programs and act as assessors of the specifications and design drawings produced by these officers.

More directly relevant to the small-scale industry sector, the Industrial Liaison Unit of ITDG responds to technical inquiries on intermediate technology for plant and processes from overseas. In addition, the Unit produces technical leaflets, reports and profiles on industrial equipment and processes in the intermediate range. The Unit deals with a large number and variety of inquiries from many parts of the world in regard to more appropriate industrial processes.

In order to carry out these tasks the Unit has built up an extensive reference system and established contacts with over 500 firms and 200 product groups which have expressed interest in helping to develop appropriate technology. It also maintains contact with academic institutions. Examples of advice which the Unit has given to overseas countries for the setting up of small-scale industries are barbed wire in Swaziland, metal windows and door production in Nigeria, woodworking in Botswana and small-scale copper rolling in Zambia. The Unit is also engaged in publishing a series of industry profiles, which are descriptions of the range of small-scale techniques within particular industries.

The ITDG has been described as a "knowledge organization." It gathers information on existing techniques and conducts research in areas where information is inadequate. Such work is undertaken by the Group's panels as well as by its technical officers. The results of this research are then communicated through a variety of publications which have recently been increasing in number. This dissemination is basic to the process of making people in the developing countries aware that alternative technologies exist or can be created. A special organization, Intermediate Technology Publications Ltd., is responsible for publishing relevant information in a number of categories, including specifications for local manufacture of tools and equipment, manuals on specific technologies, and industry profiles.

During the five-month period from September 1975 to January 1976, ITDG has received a total of 103 inquiries, most of them from Africa, the Middle East and Asia and a small proportion from Latin America. Information requests are usually filed on behalf of clients by Technology Institutes, Government Ministries, universities, and bi-lateral or international organizations. A few inquiries originated from DFC or directly from enterprises facing technological problems.

The following examples illustrate the variety of inquiries received recently by ITDG:

-- small-scale peanut processing plant (Barbados)
-- preservation of technical equipment in the tropics (Papua, New Guinea)
-- recycling of paper and broken glass (Pakistan)
-- coconut husks for insulation boards (West Indies)
-- cutting alfalfa and crushing dates (Oman)
-- soil testing kits (India)
-- small-scale manufacture of gauze bandages (Ethiopia)
-- fish meal technology (Indonesia)
-- sand and gravel digging machine (Nigeria)
-- village level technology (Madagascar)
-- steamed cane sugar machine (Haiti)
-- dye making techniques from plastic (Korea)
-- small scale ink manufacture (Mauritius)
-- export potential for para rubber (Ghana).

ANNEX 4

LETTER FROM THE PRESIDENT OF THE WORLD BANK TO DFCs

(to be drafted following PRC meeting)

INTERNATIONAL TECHNICAL ASSISTANCE AGENCIES

Summary of Functions

AGENCY	DESCRIPTION	COUNTRIES	TECHNICAL SERVICES	OTHER EXTENSION SERVICES	TRAINING	INSTITUTION BUILDING
ILO (Geneva, Switzerland)	UN agency achieving objectives of employment, income distribution, productivity, and worker and consumer satisfaction, primarily through support of handicrafts, small-scale agro-industry, other rural SSE and cooperatives, training emphasis with extensive field staff of training experts; works with other UN organizations.	Worldwide, with no country preference; specific SSI manager training programs in Greece, Korea, Uganda and Swaziland; industrial cooperatives established in Burma, El Salvador, Tanzania, etc.	Help managers select appropriate technology through expert cost analysis (Also helps make authorities aware of policy issues involved in and affecting technological choice.)	In-plant consultants assisting general managers in application of new management techniques. Services often tied to local financing organization, i.e. development bank or corporative.	Management Development Branch with SSE section; training in elementary management functions and on technicians and supervisors. Cooperative Branch; cooperative education and manager training. Vocational Training Branch; technical education and on-the-job skills training in selected occupations. Achievement motivation training for entrepreneurs. Training of trainers emphasis.	Management Development Program has helped develop national management institutions in over 50 countries, forging links with industry. Helps governments set up national institutions to promote SSI. Cooperative Program helps establish national centers for coop promotion; has helped set up industrial coops. Helps establish handicraft design and common facility centers.
UNIDO (Vienna, Austria)	UN agency which establishes, strengthens, and supports local institutions and common facility structures and assists on SSI development policy and program formulation; rural decentralized industry focus: promotion of new enterprises and modernization of existing ones.	Mainly Africa and poorest regions elsewhere.	Provides guidance in selecting appropriate technology and product lines, primarily at policy level.	Industrial surveys, feasibility and pre-investment studies.	Training of entrepreneurs and managers, worker in-plant group training. Training of local personnel in techniques and methods of SSI development; individual fellowships abroad.	Helps establish industrial extension and SSE development programs. Establishes and operates institutions and servicing facilities which include research, marketing and extension services. Helps plan, construct and manage industrial estates, industrial areas. Establishes domestic subcontracting exchanges. Some work on financial institutions for SSE.
UNDP (New York, N.Y., U.S.A.)	UN agency with broadest T/A program in UN group (UNDP/TA); Special Fund component for larger projects; services include T/A training, some equipment, pre-investment studies, institution building and policy and program advice to governments; provide services of industrial economists, and specialists in particular industries.	Worldwide	Provides equipment to SSI development centers it is establishing for demonstration purposes.		Trains national personnel in doing industrial surveys and feasibility studies. Six-month training abroad (fellowships) for personnel engaged in SSI development. Assistance in vocational training programs	Helps establish SSI development centers, providing T/A, on-site training and some equipment. Teams of experts for 4-5 years to plan and establish: 1) SSI service institutes; 2) industrial advisory services; 3) industrial R&D centers; 4) industrial estates. Implementation stage involves team of experts and training of national counterparts.
AITEC (Cambridge, Mass., U.S.A.)	Independent, non-profit agency specializing in research, evaluation, and the implementation of local, regional, and national development programs in Latin America; develops experimental programs; stresses employment, income distribution and community improvement, has helped establish cooperatives, small industry, and "micro" enterprises.	Programs including small industries development in Brazil, Venezuela, Colombia and Costa Rica, with small local staffs.			Vocational training. Training of local personnel. Organizes seminars and training courses for managers and local extension workers.	Establishes local institution, providing seed capital, manager, and managerial assistance, taking on locals and using local T/A institutions, phasing out and taking new role of transferer of successful model to build new institutions elsewhere.
TECHNOSERVE (Darien, Conn., U.S.A.)	Private, non-profit, U.S. organization responds to self-help initiatives of groups with wide ownership base, local resource use, and employment, income distribution, and self-reliance goals, playing catalyst role.	El Salvador, Ghana, Kenya, Honduras.	Local expatriate staff assists in development and selection of labor-intensive technology, testing, design, and installment of processing equipment; and improvement of product design equality.	Provides experienced managers until local personnel ready. Market research and negotiates export contracts. Helps identify sources of debt equity capital, occasional credit guarantees and small temporary equity position. Prepares feasibility studies.	Training of local managers to eventually take over projects is key to organization's approach.	Strengthens local development assistance capabilities through sharing of experience and methodology in promotion of self-reliant development and related managerial training.
ITDG (London, England)	London-based organization emphasing practical application of intermediate technology for maximum use of local resources, labor-intensive production, and local self-help; U.K. project staff and consultants provide appropriate technical information to communities as well as to integ-integrated development plans.	Principally in Africa and subcontinent with SSE emphasis in Nigeria, Pakistan, Tanzania, India, and Guyana. Overseas project staff in Zambia, Ethiopia and Brazil.	U.K. R&D units and associated industries and technical colleges develop small-scale, labor-intensive industrial equipment and techniques and new product designs according to overseas requests. Field project officers develop and field test new products designed for local construction with local materials.	Provides some accounting financial, and managerial advice to cooperatives and other groups.	Education of local industrial extension agents on availability and selection of appropriate technology.	Assists government and other agency programs with technical inputs, assisting in SSE planning and R&D projects, and installing technology development unit with goal of local self-reliance. Helps establish local appropriate technical centers.

AGENCY	DESCRIPTION	COUNTRIES	TECHNICAL SERVICES	OTHER EXTENSION SERVICES	TRAINING	INSTITUTION BUILDING
VITA (Mt. Rainier, Maryland)	U.S. Volunteer organization which provides knowledge on adapted modern technology to poor areas to meet the needs of small-scale rural industry and cooperatives.	Brazil, Dominican Republic, El Salvador, Honduras, Nicaragua, Nigeria, etc.	6000 volunteer consultants respond to specific written requests (through VITA), adapting or devising new technology to fit project needs. VITA also has own resource files.			Helps form VITA counterpart organizations which act independently, but frequently act as ultimate implementors of VITA projects.
IRRI (Los Banos, Laguna, Philippines)	Industrial R&D institute which provides innovative selective product development assistance in appropriate farm machinery to local, mainly rural industry, utilizing local materials and skills to produce commercially viable products meeting small farmer needs.	Philippines with subcontracting arrangements in other Asian nations.	Technology transfer; emphasis on product design and design release; develop and field test prototype, and link with firm for commercialization; assistance with custom fabricating; continual contact with firm re adaptations in design.	Market research and other feasibility studies. Provide firms with leaflets, instruction manuals, test results, etc. during custom fabricating stage to help promotions.	Training of engineers and field workers overseas.	Build industry through carefully tailored industrial F&D programs in public institution. Subcontract with organizations in Asia to adapt IRRI machines, encourage local production and employ IRRI-trained engineers.
EES/GEORGIA TECH (Atlanta, Georgia, U.S.A.)	U.S. university-based extension service expanding overseas operations through USAID contract; emphasis on technical advice to strengthen existing industries and create new ones with optimum use of local resources and initiative; rural focus with greater expertise in processing, wood-working and textiles.	Ecuador, Brazil, Nigeria, Kenya, Korea, Philippines, Venezuela, Honduras, Paraguay.	Work with local information center re technology transfer, adapts product and process information, improving products and reducing costs, etc. Weeks/months of on-site assistance, working closely with counterpart institution as team.	Pre-feasibility, detailed feasibility, and simple market potential studies.	For the owner/operator/entrepreneur. 13-week training program for counterpart staff at Tech; general, then specific; hopes to transfer program to field.	Identifies, assists, and works with local counterpart institutions with similar motivation (e.g. employment generation); currently six counterparts, including three universities.
TETOC (London)	Worldwide	British government agency under Ministry of Overseas Development concerned with technical education, management development, and industrial training; operates through U.K.-Based specialist staff and through consultants and efforts from British industry, training establishments and academic institutions.			Arranges UK placement for overseas trainees and training for technicians, training staffs, and supervisors; helps train industrial training instructors overseas.	Plans and develops industrial training centers and programs, and management training institutions.
STANFORD RESEARCH CENTER (Menlo Park, Cal., U.S.A.)	Worldwide	Private, non-profit problem-solving organization that performs basic and applied research under contract, its International Development Center does research for and offers technical services to industrial firms, government agencies, foundations and individuals; more than 20 years experience assisting SSI in developing countries.	For clients, SRI engages in new products, processes and equipment.	Technical assistance provided for craft industry development.	In-service training for SSI development personnel, arranges foreign training fellowships as well.	Helps establish SSI service institutes, development programs, extension training programs and industrial estates.
INSTITUTE FOR INTERNATIONAL DEVELOPMENT (IID) (Vienna, Va. U.S.A.)	Honduras, Colombia, Brasil, Ghana, Sudan, Kenya, Pakistan, Indonesia, Sri Lanka; others worldwide.	Private voluntary organization which establishes indigenous businesses in LDCs with help of human and financial resources of US private sector; focuses upon small- and medium-scale job-generating projects; aids in proposal preparation and recruitment of US and national entrepreneurs/consultants; growing emphasis upon rural and food-related industries.		During project implementation, has provided financial, marketing, legal and management assistance.	Will, in conjunction with local groups, organize, staff, plan, and implement training centers for local entrepreneurs with training provided by US businessmen in selected occupations and labor-intensive businesses and general business courses given by local, experienced businessmen; program now in experimental stage.	
COMPAGNIE INTERNATIONALE DE DEVELOPPEMENT RURAL (Paris, France)	Mainly Africa, but also work in Peru and elsewhere.	French, private-supported organization with goal of increasing productivity and employment particularly in rural areas of LDCs, helping to establish small enterprises; also works with craftsmenship development.	Gathers and provides technical information necessary to solve problems of SSIs; supplies labor-intensive production techniques and index of selected suppliers.	Supervises the initiation, implementation, and direction of small industrial enterprises.		

AGENCY	DESCRIPTION	COUNTRIES	TECHNICAL SERVICES	OTHER EXTENSION SERVICES	TRAINING	INSTITUTION BUILDING
INSTITUTE FOR NEW ENTERPRISE DEVELOPMENT (INED) (Belmont, Mass., U.S.A.)	American, non-profit organization with established process to screen identity and assist enterprising entrepreneurs establish their own businesses; helps would-be entrepreneurs evaluate their own skills and motivation and banks identify good credit risks.	None outside US, but interest shown at 1975 International Symposium and Entrepreneurship and Economic Development.			Uses a series of 2-day week-end workshops as well as individual counselling.	
TECHNONET - ASIA (Ontario, Canada)	Cooperative grouping of 11 organizations in 9 Asian countries which assist SSIs and MSIs; emphasis upon transferring knowledge about known techniques to existing enterprises; joint effort to build up extension services for industry in SE Asia.	Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand, Bangladesh, Korea, Sri Lanka.	Has back-up services from the Technical Information Service of the National Research Council of Canada (NRC/TIS) which can provide technical inquiry and industrial extension support to SSI.		Sponsors training courses for industrial extension engineers from member Asian organizations at the Small Industry Extension Training Institute (SIET) in Hyderabad, India, accenting in-plant work; arranges training visits by member organization staff members to NRC/TIS) in Canada	Helps participating organizations establish new programs and capabilities.
ORGANIZATION FOR REHABILITATION THROUGH TRAINING (ORT) (New York/Geneva)	American private non-profit development training organization with 95 years of experience in technical education and vocational training in LDCs.	Africa, Asia and Latin America, with recent emphasis upon Africa.			Provides specialized vocational training programs to government and private sector; have nearly 1,000 training units in 25 countries; on-the-job training recently emphasized; trains counterparts at facility in Geneva; also trains them locally to design their own programs.	
EAST-WEST CENTER (Hawaii, U.S.A.)					Training of extension agent personnel.	
INTERNATIONAL COOPERATIVE ALLIANCE (ICA)	An association of national cooperatives, promoting and safeguarding the interests of the cooperative movement.	Worldwide; regional offices in East and Central Africa and SE Asia.	Technical assistance from member organizations like the Cooperative League of the United States (CLUSA) to help establish cooperative industrial projects in the Third World.	Helps coordinate information exchange and technical assistance from inside and outside the cooperative movement, e.g. more advanced cooperative movements in Europe supply manpower and T/A to cooperatives in the Third World.	Advises on education and training for LDC cooperatives, helping member organizations to increase the effectiveness of their training programs.	Helps build and strengthen national cooperative movements.
INTERNATIONAL VOLUNTARY SERVICES (IVS) (Washington, D.C., U.S.A.)	Private, non-profit, technical assistance organizations providing internationally recruited development technicians on a full-time "volunteer" basis to projects directly involving the poor, particularly in rural areas, but with capabilities in engineering cooperatives, and recently in small business development.	Algeria, Bangladesh, Botswana, Ecuador, Honduras, Indonesia, Sudan, Mauritania and Papua Guinea (where most of the small business assistance is given).	Capable of providing technicians, e.g. mechanical engineers, blacksmiths, etc. to help establish small industries and supply technical supervision of production.	Business management assistance in cooperatives, simple finance, etc.	Training of trainers, as well as managers and vocational skills. Objective is for "volunteers" to phase themselves out of jobs through sharing expertise with co-workers.	
INTERNATIONAL MANAGEMENT DEVELOPMENT INSTITUTE (IMDI) (New York, U.S.A.)	U.S. non-profit corporation conducting national-and regional-level training with goal of enhancing management skills in developing countries in order to eliminate their dependence on overseas training; principally-financed through training program contracts and participant fees.	Training programs in 16 African countries since operations began in 1970.			Conducts seminars and practical management training for government officials, private businessmen, and small business owners/managers; also trains trainers/managers responsible for manpower development.	Strengthen government institutions through management training.
JAPAN CONSULTING INSTITUTE (JCI) (Tokyo, Japan)	Japanese institute with technical, industry-specific expertise for SSE development, transferred through published booklets and surveys and reports prepared for government agencies and industrial groups in developing countries.	In past three years has responded to 26 requests from 14 countries in Africa, Asia and Latin America, including 3 or more from Nigeria, Indonesia and Malaysia.	Provides (small-scale) industry-specific feasibility studies upon request as well as 100-plus excellent SSI profiles covering materials use, plant and manufacturing cost, product design, production processes, labor and power requirements, etc.			

AGENCY	DESCRIPTION	COUNTRIES	TECHNICAL SERVICES	OTHER EXTENSION SERVICES	TRAINING	INSTITUTION BUILDING
ASIAN PRODUCTIVITY ORGANIZATION (APO) (Tokyo, Japan)	Inter-governmental regional organization composed of 13 Asian which aims to increase productivity in industry (and other sectors) particularly at the enterprise level through assistance in management and technology areas with emphasis upon manpower development.	Member countries: Hong Kong, India, Indonesia, Iran, Japan, S. Korea, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan and	Technical experts visit member countries to conduct seminars and provide some consultancy services to SSEs.	Similar expert services provided in marketing finance, management and other areas, includes advice on sub-contracting.	Courses conducted on multi-country seminar and in-plant practice bases emphasizing the training of trainers for multiplier effect; develops trainers/consultants providing advisory services to SSEs and production engineers as well as trains officials of institutions assisting SSEs; also continues SSE managerial training and has study missions and fellowships for individual entrepreneurs and consultants to study SSE systems in other member countries.	Assistance to national productivity organizations in building up corps of professional trainers-cum-consultants and developing own technical centers through training and technical assistance, as well as through regional surveys of SSE needs, related symposia, and the formulation of project proposals to fill these needs and develop new SSEs.
FEDERAL BUSINESS DEVELOPMENT BANK (FBDB) (Montreal, Canada)	Canadian Crown Corporation, recently succeeding the Industrial Development Bank, which provides financial and management services to Canadian businesses and training to development banking institutions in developing countries upon request from CIDA and international agencies.	Recent in-country training in Iran, Nigeria, Ghana, Tanzania, Antigua, and St. Lucia, has trained officers from 50 countries.		Publishes and distributes "Minding Your Own Business" pamphlets written in non-technical language--covering 14 managerial topics, including working capital, cash management, etc.--and designed for SSE entrepreneurs.	Provides staff for short-term training courses for officials of development banking institutions in LDCs, conducted principally in Canada with occasional in-country assignments.	
ASSOCIATION POUR LA VENTE ET L'ACHAT DE PRODUITS DU TIERS MONDE (A.V.A.P.) (Brussels, Belgium)	Small, Belgium non-profit organization established in 1972 to provide a central importation and marketing office for (primarily artisan) goods of SSEs and cooperatives in the Third World.		Some assistance re product choice (designs), packaging, etc.; receives samples from prospective sellers.	Principally marketing; eliminates intermediaries, pays artisans 5.7 times the normal price and sells at comparable international market price; also advises on some banking and commercial techniques, etc., and extends some credit.		
INTERNATIONAL ASSOCIATION OF CRAFTS AND SMALL AND MEDIUM-SIZED ENTERPRISES (IACME) (Geneva, Switzerland)	International federation representing the interests of craftsmen and small- and medium-sized industrial, commercial, and service enterprises, and composed of 22 national organizations which must be members of one or more of the 3 component international federations (including the International Federation of Small- and Medium-Sized Industrial Enterprises (IFSMI).	Directly groups associations in 22 countries, including in the Third World: Colombia, India, Turkey, and Venezuela and 23 other nations through intermediary associations.		Federations (particularly IFSMI) operate to link enterprises in developed and developing countries through DC enterprise decentralization in LDCs, assistance in selling products of these SSEs in the markets of DCs, and through other forms of sub-contracting.		Federation missions and teams can help national agencies with SSE and MSE programs, particularly with international commercial aspects.