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SOME REFLECTIONS ON SMMEs: PAST SUPPORT AND FUTURE DIRECTIONS

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INTRODUCTION

In 1995, the International Development Research Centre (IDRC) underwent another restructuring process in order to ensure that a leaner and more focused research organization would emerge. It is in this context that the program initiative Small, Medium and Micro Enterprises Innovation and Technology (SMMEIT) was established. At present the SMMEIT program initiative provides some basis within which to understand the Centre's objectives and work in the area of small, medium, and micro-enterprise (SMME) related research. As a result of these new developments, a review was deemed necessary to provide three terms of reference: 1) an overview of the evolution of SMME activities including all activities implemented by past Centre divisions including the yearly expenditures by region throughout its 25 years; 2) to provide an overview of SME activities supported by the banks and other major donors; and, 3) to provide advice on the future of SMME activities within the Centre. The review of SMME activities attempts to fulfill these terms in a clear and concise manner.

OVERVIEW

A review IDRC support confirms that the Centre has supported a wide range of research projects focused on some aspects of development and support for smaller scale manufacturing enterprises.¹ A search in the Centre's data base (IDRIS) indicates that in the last 25 years IDRC has supported approximately 318 projects and invested \$CAD 62 626 271 to support research activities targeted at the SMME sector (see table I below).

Table 1
Distribution of IDRC SMME Projects Over Time and by Region

	1970-75	1976-80	1981-85	1986-90	1991-94	Total
Africa	0	3	13	42	25	83
Asia	4	6	20	48	17	95
Global	0	1	1	3	2	7
Latin America & Caribbean	2	6	33	55	21	117
Middle East	0	1	3	9	3	16
Total	6	17	70	157	68	318

¹ See Annex 1 for a reasonable complete historical record. This has been produced by combining the earlier compilations produced by Charles Davis and Philip English. See: Charles Davis' E-mail: "SMME Project Files," (Monday, April 22, 1996), Philip English, "Small Enterprise Development and the International Development Research Centre: Support for Research," (Ottawa: IDRC, January 1993) and A. Berry, "Report on the Technology for Local Enterprise Program," (Ottawa: IDRC, 1990).

In the early period of support, research grants were devoted to developing relatively simple and inexpensive devices to increase the productivity of processing of agricultural products such as dehullers, shellers, dryers, and seed crushers and so on. However, by the mid-1970s and early 1980s research related to additional issues in small scale industry appear. Initial emphasis was the region of Asia during the 1970s at the rate of approximately one million dollars per year. By the mid-1980s the Centre substantially expanded its support to SMME-related projects. At the same increased funding was targeted at the region of Latin America and the Caribbean. SMME projects represent 17.6 percent of all projects financed by IDRC; that is, 318 out of 5600 (IDRIS data base). The former Social Sciences Division, the former Environment and Natural Resources Division and the former Agricultural, Food and Nutrition Division funded the largest number. As shown in Table I, the region of Latin America and the Caribbean has received the largest number of projects (117), followed by Asia (95) and Africa (83). However, from 1991-94, funding in the area has declined precipitously in all regions except Africa where a smaller relative decline is noted. The most rapid decline has taken place in Asia, the combined total of projects supported from 1986-90 was 48 with a total of \$9 450 162 in grants while in 1991-94 there were 17 projects with \$3 716 856 in grant support (see Table II below).

Table 2
Distribution of IDRC SMME Project Grant Amounts Over Time and by Region

	1970-75	1976-80	1981-85	1986-90	1991-94	Total (\$CAD)
Africa	0	177 100	2 787 413	7 532 523	6 544 480	17 041 516
Asia	1 414 516	2 820 696	2 533 420	9 450 162	3 716 856	19 935 650
Global	0	271 000	48 559	627 284	611 555	1 558 398
Latin America & Caribbean	57 000	497 000	5 345 076	10 288 144	5 104 384	21 291 604
Middle East	0	73 600	165 800	1 891 980	667 723	2 799 103
Total	1 471 516	3 839 396	10 880 268	29 790 093	16 644 998	62 626 271

English, in an earlier review, comments that the Centre's SMME projects have "tended to be designed and implemented in a typically independent fashion."² The diversity of projects supported reflect either "the Centre's flexible and decentralised mode of operation" or which may be argued reflect the difficulties in coordinating the Centre support among different actors

² See: English, "Small Enterprise Development and the International Development Research Centre," p. 1.

within the organization for this area.³ We argue here that even though the past support was relatively uncoordinated, the projects funded fall into very clear groups and exhibit certain trends over time. These trends reflect the combined influence of ongoing and implicit learning within the Centre and changes in the external environment.

Fortunately, the evidence from recent documents on themes and program initiatives (PI) suggests that the thinking within the Centre is much more coherent than in the past and is strongly correlated with the Centre's overall priorities, mandate and mission which include support for increased knowledge and its application for sustainable and equitable development. While the Centre thinking and description of the initiatives indicate increased coherence in this very short overview, it is not possible to judge the extent to which the projects actually funded by different initiatives exhibit similar degrees of coherence. Nevertheless, before we review the work in the area of support to SMMEs by the Centre we should quickly summarise the broader development reasons as to why there should be any support to SMMEs. The background in turn provides the need and context for different initiatives.

THE DEVELOPMENT RATIONALE FOR SMMEs

If we apply a comparative framework to development, and accept that in certain respects the development path followed by Developing Countries (DCs) will include some of the same elements and follow some of the same trajectories as traced out in the industrialized countries, then the following historical facts may be considered to be valid.⁴ Historically, in all societies engaged most people, and farm and farm related services provided the locus of most employment and defined social organization.⁵ In all countries additional employment opportunities emerged first with increased farm production and with related off-farm industrial production, both demanding complementary services. It is natural for all such additional production activities to start in the most part in small establishments, some in rural and some in urban areas. It is only in the later stages of development that many of these small establishments grow to become large, so that in the industrialized countries a high share of all employed persons work in large establishments.

The definitions of “large,” “medium,” “small” and “micro” establishments vary considerably across countries and in many countries there are legal definitions for the different size classes.

³ Ibid.

⁴ This statement is not universally accepted as being true. Moreover, even when accepted in general, there are questions as to which elements are similar and which are different. Also, we may want to deliberately attempt to modify certain elements of the DC development trajectory, for instance to strengthen development processes which contribute to greater equity while at the same time promoting a cleaner and environmentally friendly growth paths. Finally, modifications are made possible by learning from the mistakes of earlier growth paths followed by the currently industrialized countries.

⁵ English, 1993, Opt. Cit., p. 3.

Nevertheless, we accept English's argument for a very rough and ready definition that large enterprises are those with more than 100 employees. Such enterprises account for only a very small share of employment in the beginning of the industrialization process. The range in most DCs today is that between 5% to 15% of industrial workers work in large enterprises. The figure varies from region to region and depends on the size of the country, its colonial experience and a variety of other factors. Most non farm workers, 85 to 95%, are engaged in SMME and "household" enterprises. Following English, "small and medium" enterprises, are those having 5-99 workers, typically hiring non-family members and thus having a more formal sort of contract with the workers.⁶

Over time, with industrialization, there is a movement of labour from the farming sector to manufacturing, with a growth in SMMEs and their employment share. Ultimately the structure of employment and firms in the industrial sector stabilises with a certain distribution between larger and smaller firms. This structure and distribution, always a dynamic one, depend on the history, economic policy and industrial environment, within which different sizes of firms exhibit optimal economic efficiency.

The economic logic for the initial growth of SMMEs is based on the initial scarcity of capital. This is true for all new entrepreneurs in all countries. And, capital scarcity is a more common characteristic for most entrepreneurs in DCs. In DCs there is a greater dependence on labour intensive technologies which form SMMEs. Over time some of the SMMEs move toward more capital-intensive technologies as their supply of capital increases. Since capital-intensive technologies tend to be characterized by economies of scale, large firms evolve and become dominant in many sectors over time. It would clearly be inefficient if no SMMEs ever evolved to become large firms as then possible economies of scale would not be availed.

So while the importance of the small scale sector may diminish as a country becomes more industrialized, the fact remains that at the earlier stages of development the sector is efficient, and a good place to invest resources from the national point of view, therefore, it is a sector which deserves public support. The fact that there is not enough capital to go around in DCs (i.e., not all workers can be allocated similar amounts of capital as in industrialized countries) leaves a country with two alternatives. It can concentrate a high share of its capital on a few workers, who will have high labour productivity and high wages and leave the rest of the workers with very little, or it can attempt to distribute the capital more evenly among all the workers.⁷ Normally one can get more total output by using all of the workers together with intermediate technologies than allowing a few to work with advanced technologies while the rest have so little capital that their productivity is very low.⁸ Intermediate and less capital intensive technologies are used in SMMEs to a much greater extent than in larger enterprises.

⁶ Ibid, p. 3.

⁷ English, 1993, p. 6.

⁸ Ibid.

Among the most commonly stated rationale for the support of smaller production units is their employment creating capacity. This almost universal phenomenon arises from the fact that generally for the same product SMMEs use greater labour and less capital and as well that in most countries most start ups are in SMMEs. Also, SMMEs usually hire a work force with lower skills and thereby provide a large number of unskilled workers valuable work experience and skills. Evidence also shows that SMMEs often tend to use more appropriate technologies, produce products with more appropriate attributes and at scales more suitable to small DC markets. Finally, it is postulated that unlike the larger scale manufactures who rely more on imported technologies, the SMMEs can provide the main market for the research and technology development capacity of DCs. Recognition of the importance of the small scale sector (SMMES) increased almost two decades ago together with a better understanding of technology issues and the nature and pervasiveness of employment and poverty problems.

The potential socioeconomic contribution of small manufacturing enterprise is great and will remain so for some time in most parts of the Third World. The countries which have shown exceptionally high economic growth rates, high employment rates, and a more equitable income distributions have been Japan, Korea and Taiwan, and all of them have depended on a strong base of small enterprises. In the poor countries around the world, it is clear that this sector must play an important role for the foreseeable future if they are to increase their economic growth rates while increasing employment opportunities and equity.

The earlier arguments may suggest that SMMEs are only important in the DCs and not in the industrialized countries and that in the latter they are only of historical interest. That would be a mistake as the SMMEs sector is also a high priority for policy makers in the industrialized countries because most new enterprises necessarily start out small. This is due to initial lack of capital for startups and also due to the fact that in many new products and technologies initially the future markets are undefined or remain to be created. Thus, initial production is necessarily undertaken at a smaller scale. If the circumstances are favourable the SMME sector grows to take advantage of larger markets. Many new science-based technologies are scaled up from the laboratory and the initial production scale-up is often necessarily small.

Another reason for the importance of SMMEs is that in many sectors production that is closely coordinated between large firms and many small subcontractors have proven to be more economically efficient than that undertaken by vertically integrated large scale firms alone. Other advantages of SMMEs are that their development is important for the promotion of regional economic development. It is also argued that small enterprise development is important for the more efficient functioning of the market by increasing the number of participants and reducing dominant power. Finally, it is argued that small enterprise development promotes democracy and a civil society by increasing the participation by larger numbers of stakeholders in the economic, political and social systems.⁹

⁹ Additional discussions of the reasons for support to SMME can be found in the ILO Reports and English, 1993.

All these advantages and benefits of SMMEs do not come without some attendant costs. First, we must emphasize that we are not proposing that all industrial activities be undertaken by SMMEs only. In many cases it is understood that the economic penalties of not taking advantages of scale economies when available are simply too high. Even where SMMEs are economically attractive on various grounds they tend to be higher polluters than larger enterprises per unit of production, and given their geographic dispersion and lower capital and skill base, provide greater challenges for pollution control strategies. In general they are weaker in their capacity to generate savings and to generate technological change. As in the case of small farmers it is generally accepted that a healthy, efficient and dynamic SMME sector necessarily requires the provision of technological inputs from outside the sector. Finally, the reality of health, safety and working conditions, and pay, for SMMEs is in general inferior to conditions in large enterprises, although at the macro economic level it may be more "appropriate." Fortunately, *for governments and for IDRC, some of these weaknesses of the SMME sector, together with the many advantages, provide an ongoing rationale for intervention.*

PUBLIC POLICY AND OTHER INTERVENTIONS FOR THE SMMEs

Macro level

Research, knowledge generation and interventions in favour of the SMMEs can be categorised into three broad levels, the macro, meso and micro. At the macro level these interventions are directed at the broader policy and regulatory framework affecting small enterprises. This includes measures that are taken by government to control the economy and the role that the private sector performs in it. Programmes which reform the macro-policy environment to achieve what many refer to as a more "enabling environment" for small enterprise development may include the removal of obstacles, "bottle-necks" or constraints on small enterprise growth such as simplification of registration procedures, taxation rules, improved access to foreign exchange, credit and physical facilities, and macro conditions such as inflation, exchange and interest rates, etc.¹⁰

In the past, many development specialists and DC governments failed to understand the importance and potential of the SMMES. Further, many of these countries inherited a "dual" production structure from the colonial period where there were a small number of vertically integrated, highly import dependent, capital intensive and often economically inefficient large

¹⁰ See: "Report on Work in Progress in the Production of Guidelines for Small Enterprise Promotion and Development," the report was prepared for the Committee of Donor Agencies for Small Enterprise Development meeting in Frankfurt, Germany, on 16 April 1996, by the Working Group on Non-financial Services for Small Enterprises, (Frankfurt: ILO, March 1996) and Michael Farbman and William F. Steel, "Themes for Donor Cooperation in Research on Small Enterprise Development," paper prepared for the Committee of Donor Agencies for Small Enterprise Development, (February 1991).

enterprises which sheltered behind high tariff barriers and wielded their economic and political power to adjust broad policies in their favour and against small enterprises. With a very few exceptions, DC public policy toward and support for SMME have in the past ranged from fair to poor. Often, it has been a matter of neglect, sometimes relatively benign and sometimes with a malignant twist. Much of the IDRC work undertaken from the social sciences perspectives contributed to descriptions of the characteristics of SMMEs in different regions, sectors or countries, which often provided information on their numbers, products, employment, and problems. Too many of the studies stopped at that point with no further follow up. It is hoped that where they were conducted with the involvement of appropriate local institutions they contributed to the process of increased local recognition of their role and importance and contributed to the process of problem diagnosis and resultant policy changes. With the demise of IDRC programming by social science disciplines and the demand for more results oriented projects led also to the demise of projects of this genre.¹¹ A few projects began to move from the descriptive studies to more diagnostic and policy oriented studies and other IDRC projects focused more on blending new technologies for sectors where SMMEs dominated with meso level interventions.

Micro level

At the other extreme are micro level interventions which are concerned with programmes and instruments aimed directly at enterprises themselves to address some of the problems. Most donor agencies and IDRC have stayed away from such direct support measures for a number of reasons, including: cost effectiveness as such interventions are expensive and only very few institutions can be reached directly by external agencies.¹² It is for these reasons that most donors prefer to work with local intermediary organizations for example at the meso-level intervention which has also been true of IDRC.

Meso level

This report has already outlined the central role that counterpart or intermediary organizations can play, however, some further analysis at this point will be provided. *These meso-level agencies have increasingly seen to be fundamental to the design and delivery of effective services and programmes.*

Services can be provided by many types of organisations. They include membership organizations, which are essentially self-help bodies created by entrepreneurs to support or represent their interests. They may be, for example, chambers of commerce, business associations, or sectoral associations. Meso level mechanisms include service delivery institutions or organizations which provide a specific service to entrepreneurs and their enterprises. There are broadly three types of organizations which provide service mechanisms

¹¹ For Project examples see later section and Annex 1.

¹² See: ILO report, "Guidelines for Small Enterprise Promotion and Development," Opt. Cit., p. 15.

that can be used in small enterprise development. These include government agencies, non-profit organizations - such as the business associations, non-government or community-based organizations (NGOs); and, for-profit organizations - such as consultancy firms, private training agencies or other forms of private enterprises such as buyers of SMME goods and services.

In the case of IDRC, actions undertaken included support, sometimes, for the creation of new meso level institutions or structures, and more commonly, for strengthening existing organizations to enhance their capacity to service their members. Most donors have also emphasized the importance of development efforts at this level.¹³ It is suggested that strengthening these institutions will allow them to become better mediators on the macro-policy level, through their advocacy on behalf of enterprises, and also as multipliers for more and efficient enterprises at the micro level through the provision of services.

The general lack of organization amongst SMMEs can create a difficulty in providing small enterprise development services on a sustainable basis. Thus, the support for institutions providing these services is encouraged where they respond to the needs and demands of entrepreneurs. When promoting the development of service institutions a range of activities are undertaken by donors. Successful institutions are seen to be demand-driven, responding to the needs of local entrepreneurs; flexible in their approach and adapting to changing demands and needs of local entrepreneurs; and having a professional management, free from undue political influence, ensuring that support services are based on commercial decisions, rather than nepotism. Ideally, the support services should also be able to attract funds and be sustainable.

Local enterprise development agencies are seen as valuable small enterprise development mechanisms for some donors. These community-based agencies provide advice, training, information, referrals and other support services directly to local entrepreneurs. Business incubators have also become a popular form of service delivery mechanisms amongst some donors. ***In general the donor community at its recent meetings in Budapest and Frankfurt suggested that more information is required on the benefits of the different types of meso level institutions the best practice in institutional capacity building, practical experiences and lessons learnt (ILO).***

Networking and linkages are another meso level activities which refer to the formation of collaboration, clustering or twinning arrangements between and across firms.¹⁴ These can involve vertical (i.e., small firm to large) and horizontal mechanisms (e.g., small firms collaborating together) and can exist within a country or region, or amongst firms in different countries. Many donor agencies tend to promote linkage between firms in their country and

¹³ See the section on donors for examples.

¹⁴ See: ILO report, "Guidelines for Small Enterprise Promotion and Development," Opt. Cit., p. 33.

those in the target country.¹⁵ Networks and linkages are important small enterprise development instruments and can be formed within specific industry sectors or regions or by particular types of entrepreneurs (e.g., women). They allow entrepreneurs to learn from each other rather than from outsiders and several have been used by IDRC.

It is important to distinguish between two types of networks which serve different purposes. Horizontal networks are formed between small enterprises and institutions to share information and experiences or to collaborate together to purchase goods, market their product, support one another, or advocate for changes of policy or regulations. Vertical networks link small and large enterprises, can be within a country or region, between a firm in a developed country and one in a developing country.¹⁶ Linkages such as these can assist participants in acquiring technology, “know-how,” and expertise, to increase the competitiveness of participating firms, and to broaden market shares and opportunities for both parties.¹⁷ These types of linkages provide both great potential as well the possibility that the SMMEs can be helped or victimized by the large firms. Often, systems of collaboration like subcontracting have been of fundamental importance in increasing the growth, quality and productivity of SMMEs but also require institutional and legal frameworks to minimise negative aspects.

All studies of SMMEs confirm that the provision of suitable technical assistance is among one of the most critical requirements. The availability of the required knowledge with the smaller firm constitutes a difficult problem for a series of reasons. Often the firm is new and the entrepreneur is also still at the early stages of learning processes. Second, the limited number of people reduces specialisation and the flow of relevant information can strain the capacity to process and utilize the information. Technological inputs are harder because the system of supply of machinery and equipment and technical services tend to be less organized.

The assistance needs of SMMEs are divided traditionally into two broad categories, credit and technical assistance. Efficient systems for providing credit to SMMEs are a problem in all countries. This is an area where most international finance institutions and other bilateral donors are active. This has not been an area of focus for IDRC and considering experience and comparative advantage of the Centre should probably remain so. But many programs increasingly link financial and technical assistance and IDRC cannot simply ignore many activities for being irrelevant to its objectives.

Meeting these needs is not easy and there are special difficulties with technical assistance the focus of our attention. First of all, there is often a shortage of appropriate information to be offered, particularly in terms of technology. Then, the technological problems will vary greatly from one sector to another, while the managerial shortcomings vary even between firms within the same sector. Appropriate assistance demands a degree of knowledge about the firm's

¹⁵ Ibid.

¹⁶ ILO report, Opt. Cit., p. 33.

¹⁷ Ibid.

operations which is not usually required in credit programs. Indeed, most credit schemes for small enterprise basically rely on an assessment of the reliability of the borrower, leaving it up to the borrower to determine how the loan should be best used.

On the other hand, while there are many national institutes dedicated, more or less, to this need, most appear to have had little impact on the process of technological improvement in SMMEs. This may be because they have been starved for financial and/or human resources, too political in the selection of personnel, or too low in the prestige hierarchy of public sector agencies. In any case, it is clear that there does not exist a "blueprint" for the how to organize an adequate flow of effective R & D for this sector which may be the reason why an evaluation of World Bank lending to SMME found such discouraging results from the technical assistance component of projects that it recommended getting out of this aspect entirely. It is the existence of this kind of knowledge gaps that IDRC is well designed to address effectively that provide a rationale for the Centres' continued priority for the activities in the sector. **But it also demands a strategy of implementation whereby innovative practices can be developed, tested and diffused widely which has been a past weakness.**

OVERVIEW OF DONOR ORGANIZATIONS AND THEIR ACTIVITIES

United Nations Industrial Development Organization (UNIDO)

In 1992, the Director General of UNIDO launched a programme of activities in support of small and medium enterprises (SMEs) for the period 1992-1997.¹⁸ *The programme sets out UNIDO's strategy to help develop services in DCs to promote commercially viable small industrial enterprises and to strengthen institutional support mechanisms* together with NGOs and private sector groups, including chambers of industry and associations of small industries, in order to strengthen the SME sector.¹⁹

UNIDO activities may be grouped into five strategic areas.²⁰

- 1) assisting DCs at the policy level by creating an enabling environment for a coherent SME sector development strategy by helping governments to formulate national strategies and programmes to promote the sector;
- 2) strengthening national capabilities through technical cooperation;
- 3) promoting the establishment of national, regional and international networks through industrial subcontracting and partnership;

¹⁸ See: "UNIDO Small Enterprise Development Programme," note prepared for the meeting of Donor Agencies for Small Enterprise Development (Abidjan, 3 December 1993).

¹⁹ See: "UNIDO's Programme For SMI," in *Small Enterprise Development*, Vol. 4, No. 3 (September 1993), p. 60.

²⁰ Most of the information on UNIDO areas of activities was gathered via the following Internet address: <http://www.unido.org/themes/three/three6.html> and the *Annual Report of UNIDO 1994*.

- 4) assisting governments and their national institutional partners to develop mechanisms to ensure effective implementation and continued enhancement of strategies and policies aimed at the SME sector; and
- 5) promoting the development and application of efficient, cost effective and environmentally sound systems (clean technologies) in DCs.²¹

A recent example of the UNIDO programme for assisting SMEs based on the strategic management concept and networking can be found in Madagascar.²² Several subcontractors were chosen for which the project is organizing the support of local institutions, devising methodologies for diagnostics and modernization and fostering conditions for cooperation among SMEs. The results of this project were creation of the National Council for Industry and associations to promote exports.

In 1996-1997, UNIDO activities will focus on three guiding themes.²³ The first priority or theme in the formulation and implementation of projects is the creation of networks of support institutions and services in order to foster improvement in the productivity and competitiveness of existing SMEs. In addition, projects will also focus on how to facilitate the establishment of new enterprises, inter alia, through business incubation schemes. The second theme involves the creation and implementation of a cross-organizational regional programme in a number of countries of Central and Eastern Europe. This programme will aim at the establishment of a decentralized network of business development centres for the promotion and support of private sector SMEs. The final theme will give priority to women entrepreneurs, who according to UNIDO constitute a special target group in many of its projects. A special thematic programme “Women Entrepreneurs for Industrial Growth Selected Subsectors” (such as textiles, food-processing, leather products and ceramics, etc.) will combine training and consultancy services to women, in the fields of production techniques, management and marketing.²⁴ UNIDO like other international and bilateral organizations will cooperate to address the alleviation of poverty, the promotion of sustainable development, the strengthening of national capabilities, and the integration of women.

The Canadian International Development Agency (CIDA)

A major priority within CIDA is the “sustained and equitable economic growth by supporting

²¹ “Most enterprises, particularly small and medium scale enterprises have not shown internal capability to make adequate use of clean technology, on a continued basis. Their lack of technology management, the lack of technology information and availability of financial resources are considered major factors hampering the effective transfer of clean technologies.” In the last few years UNIDO has supported approximately 100 small and medium enterprises addressing the specific needs of various industries. See: UNIDO, “Technology and Competitiveness: Development of Technological Capabilities,” paper presented to the regional meeting of Ministers for Industry in Latin American and Caribbean Countries (19-22 September 1995).

²² For other examples see the following Internet address: <http://www.unido.org/themes/three/three15.htmls>

²³ The current themes can be found at the following Internet address:
<http://www.unido.org/themes/three/three7.htmls>

²⁴ Ibid.

private sector development in developing countries and organizations which are working in micro-enterprise and small business development to promote income generation.”²⁵ There are no written principles for small enterprise development within CIDA, but support in this area must comply with CIDA’s policy paper *Policy on Private Sector Development in Developing Countries*. This policy paper outlines two broad themes to guide programming:

- 1) the creation of an enabling environment; and,
- 2) the promotion of the private sector.

In 1994-95, 21.5% of CIDA’s bilateral disbursements went to private sector development programs.²⁶ A central focus of the private sector programs is targeted at the development of micro and small enterprises. Currently CIDA is supporting 28 projects (approximately \$CAD 40 million) in the micro and small enterprise sector.²⁷ CIDA promotes two strategic roles to support the development of microenterprises in projects which can help reduce poverty by generating income and employment growth. CIDA will devote funds to strengthening institutions that already provide financial and technical services and fund innovative activities which will contribute to the advancement of the field through lessons learned.

In 1994-95, CIDA projects in Egypt, Mali, Niger, Senegal, Burkina Faso, Benin and Cameroon directly involved the poor in entrepreneurial activities in order to increase their incomes. In Ghana (0018997), a project is targeted at a centre which was designed to assist owner/managers of the existing or new small and medium firms largely in the agro-based or light industrial sectors. The overall aim of this project is to increase employment opportunities, income and productive activities in Ghana. In Thailand, a project (0018858) is attempting to provide small and medium scale enterprises in three main regional centres with technical assistance in technological innovation, financing, and marketing skills through intermediary institutions such as regional business associations. In the Americas branch, 55 projects were completed through the Guyana Business Advisory Service during 1994-95.²⁸ Through CIDA’s Institutional Development and Professional Training project, Brazil’s Centre for Industrial Technology has recently graduated its first two groups of technical students as well as initiating a program of in-service customized training for industry.²⁹

In 1995-96, CIDA became involved in a partnership with the Multilateral Development Banks (MDBs), bilateral donors, the UN and NGOs, which came together in 1995 to establish the Consultative Group to Assist the Poorest (CGAP). According to Gilles Lessard, the Canadian government and most major donors will focus on the promotion of the micro-enterprise and small business development for the next ten years. The reduction of poverty and the targeting

²⁵ Canadian International Development Agency, “1996-97 Estimates: Part III, Expenditure Plan,” (Ottawa: Minister of Supply and Services Canada, 1996), p. 11.

²⁶ Ibid, p. 17.

²⁷ Information obtained through a conversation with Gilles Lessard, CIDA Program Officer, (Hull, 2 May, 1996).

²⁸ See: CIDA, “1996-97 Estimates,” Opt. Cit., p. 41.

²⁹ Ibid.

of the poorest is one of the main Canadian government priorities. The Canadian government intends to forward this position in the upcoming Micro-enterprise Summit being held in Washington in 1997.

The African Development Bank

In 1994, the total loan resources of the African Development Bank amounted to \$12.54 billion.³⁰ The industrial sector received the largest share of approved loans, with \$283.56 million of which 6.50 million was in the private sector.³¹ Also, in 1994, member countries of the African Development Fund reaffirmed their support for microenterprises. They recommended an allocation of 15 million for investments in microenterprises. In Tunisia, a line of credit of 80 million (14 years) was approved to four development banks. The line of credit was the establishment of projects and the extension of viable small and medium enterprises in the tourism and manufacturing sectors. In Lesotho, the Nigeria Trust Fund also extended a line of credit to the National Development Corporation to finance small and medium scale projects from the industrial, agro-industrial, tourism and related services sectors.

The Asian Development Bank

In 1994, the Asian Development Bank approved \$133.4 million for projects to improve private sector performance.³² The Bank's private sector policy aims to emphasize the importance of technical assistance and policy to improve the environment for private sector development. The Bank's technical assistance is financed through a combination of loans and grants. Funding for grants come from voluntary contributions from member countries to the Bank's Technical Assistance Special Fund (TASF). The technical assistance operations can be divided into four categories: project preparation, project implementation, advisory technical assistance, and technical assistance for regional activities. From January to September 1995, industry and non-fuel minerals projects made up 2.7% of all technical assistance loans.³³ The Bank has recently allocated \$500 million of additional ordinary capital resources for its private sector operations up the end of 1997.³⁴

The Bank's recent approval of loans demonstrates its commitment to support the SMME sector. For example in March 1996, *the Bank approved an \$80 million loan to Indonesia for an industrial technology and human resource development project.*³⁵ *The primary objectives of this project are to strengthen the institutional structure and industrial technology capabilities of eight industrial research and development (IRD) institutes; assist these*

³⁰ See: [African Development Bank Annual Report 1994](#).

³¹ Ibid.

³² See: [Asian Development Bank Annual Report 1995](#)

³³ See: <http://www.asiandevbank.org>

³⁴ Ibid.

³⁵ See: <http://www.asiandevbank.org/news96/nr035-96.html>

institutes to become more autonomous and self-reliant; and improve their linkages and responsiveness to the needs of small and medium scale industries. The Bank has also been very active in support of projects for microcredit in Western Samoa, Kyrgyz, Thailand, and Philippines aimed at reducing poverty through the creation of employment and income opportunities for microenterprises and small business undertakings.

Inter-American Development Bank (IDB)

Since 1978, the Inter-American Development Bank (IDB) through its Private Sector operations and Small Projects program has been supporting the development of the SMME sector in Latin America. IDB's existing private sector activities of the Bank Group include policy-based lending, global loans, the Inter-American Investment Corporation, and the Multilateral Investment Fund.³⁶

It is important in particular to briefly outline the last activity, the Multilateral Investment Fund (MIF), and its recent support of the small enterprise sector. MIF was created in 1992 by member countries to help the region's countries improve their market economies. *The Small Enterprise Development Facility, one "window" of the MIF, focuses on the small and microenterprise sectors by offering technical assistance and investments to develop innovative financial services and strengthen intermediaries in microfinancing, business advisory services, technical knowhow, technology transfer and facilitating joint ventures and subcontracting.*³⁷ This third widow operates through the Small Business Development Facility to provide support to NGOs, domestic financial institutions and intermediaries; and the Small Enterprise Investment Fund (SEIF), which provide loans or takes equity positions in private sector initiatives.

In 1995, projects supported by MIF include the establishment of networks of business services centres in Argentina, Colombia, and Peru to strengthen competitiveness and growth opportunities for small businesses with technical assistance in production, technological innovation, consulting services in the areas of management and finance, marketing, export development, transfer of technology, quality control, and joint subcontracting opportunities. Other examples of recent projects include a Mexican initiative where a grant will assist electronic firms in training of personnel, and in Costa Rica financing is being provided to executing agencies to set up business extension centres.

*In 1990, the Bank created the Microenterprise Division with a budget of US\$321.6 million over a period of four years (1990-93).*³⁸ *The Micro enterprise Division in its first four years has emphasised institutional strengthening of the intermediary organizations, their administrative and financial self-sufficiency, accountability and responsibility in the management of loan*

³⁶ See: The Inter-American Development Bank Annual Report 1995

³⁷ See: IDB Annual Report 1995

³⁸ See: "IDB Guide to Micro enterprise Finance Institutions," Small Enterprise Development, Vol. 6, No. 1 (March 1995), p. 95.

portfolios, and the elimination of distortions in resource transfers to the micro entrepreneurs.

In 1995, IDB defined a new five-year Micro enterprise strategy at the Miami Summit in December 1994.³⁹ The MICRO 2001 Program calls for the creation of:

- 1) a favourable policy and regulatory framework;
- 2) solid and sustainable institutions capable of providing the services which micro enterprises demand;
- 3) better access to financial and non-financial services for the poorest microentrepreneurs; and,
- 4) flows of resources for investment in micro enterprise development.⁴⁰

Over the next five years the Bank plans to finance more than \$500 million allocated to the program. The Bank is currently administering a portfolio of 314 microenterprise projects totalling US\$308.7 million.⁴¹ The Bank's Micro Enterprise Program has "*shifted from a primary emphasis on transferring financial and technical resources to beneficiaries, to the strengthening of intermediary institutions that delivers these services to the target group on a sustainable basis.*"⁴² The program also places greater emphasis on the creation of an "enabling" policy and regulatory environment for microenterprise development as well as a relatively greater emphasis on technical assistance interventions. The MICRO 2001 Program will be coordinated by the Micro enterprise Unit (MIC) of the Social Programs and Sustainable Development Department (SDS). The Unit will coordinate the Program, develop technical and operational guidelines, disseminate best practices, and carry out research, promotion, and fund-raising.

The Bank states that their Small Projects programs have reached approximately 600,000 micro entrepreneurs and generated or improved more than 1.8 million jobs.⁴³

The US Agency for International Development (USAID)

In 1994, USAID launched the Microenterprise Initiative which included a set of policies, strategies, and specific actions designed to ensure that microenterprise support is a central focus of the organization's economic growth strategy. USAID's funding for microenterprise development increased from US\$80 million in the fiscal year 1993, to a total of \$US130

³⁹ See: Inter-American Development Bank, "Activities Supporting the Action Plan of the Summit of the Americas: Draft," (Washington: IDB, June 1, 1995).

⁴⁰ This information was directly taken from: IDB Annual Report 1995

⁴¹ See: IDB, "MICRO 2001: Expanding Economic Opportunity Through Enterprise Development, Program Outline for Consultation with IDB Partners," (November 1995).

⁴² IDB, MICRO 2001, Opt. Cit., p. 3.

⁴³ See: IDB Annual Report 1995

million in 1994.⁴⁴ USAID's microenterprise initiative will focus on new, more cost-effective means of providing non-financial assistance to microenterprises. The Office of Microenterprise Development is the management unit for the Initiative. The Office manages seven major activities: 1) Implementation Grant Programme (IGP); 2) The PRIME Fund; 3) Microenterprise Best Practices (MBP); 4) MicroServe; 5) Microenterprise Impact; 6) Linkage Activities, and 7) Staff Support to USAID.⁴⁵

In Bolivia a microenterprise project (\$3 million) resulted in the creation of BancoSol, a licensed commercial bank which provides loans and deposit services exclusively to poor microenterprises.⁴⁶ By the end of 1994 BancoSol had served more than 305, 000 clients, most of them Indian women with loans averaging \$ 400 for each client.⁴⁷ USAID considers this project a success because it reveals that it is possible to provide credit to a large number of poor people without requiring continuing subsidies from donors. USAID has supported similar projects in the Dominican Republic, Costa Rica, and Senegal.

For the purposes of this report, we will also highlight two of USAID's other activities which might be of most interest to IDRC. First, the MBP activity might be of interest to the Centre as it MBP aims to develop a facility to encourage best practices in the field. The MBP is a training, research, and information-exchange component, designed to expand the knowledge base in the field and to improve the design and implementation of USAID-supported projects. Second, the linkage activities are designed to foster the greater involvement of other entities and provide support to inter-donor activities, such as CGAP.

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)

According to GTZ the objective of the Small Enterprise Development activity is "develop and strengthen the entrepreneurial potential of this sector and its self-help organizations on a sustainable basis, so as to make structural improvement for the urgent satisfaction of the demands of lower income groups for goods, services and jobs, thus working towards integrating them fully into society."⁴⁸ The target groups in this GTZ activity including formal and informal small and micro-enterprises, the unemployed, and "new" target groups (i.e., demobilised soldiers). This entrepreneurial initiative helps individuals to set up their own businesses through the CEFÉ (Competency-based Economies through Formation of Entrepreneurs) programme that has been operating worldwide since 1988. As a reflection of GTZ new direction targeting a new group, in 1995, the agency has devoted funds to support small and medium scale enterprise in Israel and Jordan.

⁴⁴ See: "USAID's New Microenterprise Initiative," Small Enterprise Development, Vol. 5, No. 3 (September 1994), p. 57.

⁴⁵ See: "USAID Microenterprise Development Office -- Services and Activities," Small Enterprise Development, Vol. 6, No. 4 (December 1995), pp. 59-60.

⁴⁶ See: <http://www.info.usaid.gov/welcome/bur/econ.html>

⁴⁷ Ibid.

⁴⁸ See: GTZ, "Small Enterprise Development: GTZ Package -- GTZ Experience," (May 1996).

GTZ's recent evaluation on the CEFE training programme showed that 80 per cent of the participants either achieved an increase in their income, or were able to boost the number of their employees.⁴⁹ The evaluation also found that the programme could increase its impact and reduce costs through the setting up and strengthening network structures between local institutions. The "Small Enterprise Development" initiative performs the following activities: 1) Training for Small Entrepreneurs; 2) Assistance for Business Creation; 3) Management and Business Consultancy; 4) Organizational Development for Self-Help Organizations and NGOs; 5) Promotion of State Small Enterprise Development Agencies; 6) Improving the Framework, sector-policy consultancy, and 7) Complementary Financial Services.

A unique feature of the GTZ approach is its emphasis on the importance of a systemic small enterprise development programme. Their "system approach" attempts to link interventions on the micro, meso and macro level with each other.⁵⁰ Finally, GTZ's approach to small enterprise development is demand oriented and this ensures those project activities that result from this process respond to needs and become sustainable by strengthening self-help and self-driven local institutions.

Overseas Development Administration of the UK (ODA)

In 1990, the ODA set up the Small Business Development Fund to investigate and promote affordable loans and grants, technical help, start-up assistance, marketing guidance and capital investment to DCs.⁵¹ In 1989, the Know-how Fund was created to target central and eastern Europe and the former Soviet Union.⁵² Management training in this region is an important component of this Fund. For example in Poland, four regional management centres were created and focused on training and business advice targeted at small and medium enterprises.

In 1995, ODA was active in 134 small enterprise projects with a total budget of some 91 million pounds.⁵³ A feature of ODA's activities with small enterprises has been its *"commitment to the importance of impact measurement and evaluation. Effective small enterprise development programmes have proper measures and procedures in place for monitoring and evaluation. Considering that amongst donor programmes there is a wide variation, the issue of evaluation and impact assessment is key."*⁵⁴ In 1995, the ODA's support for small enterprise development (SED) activities were evaluated. Overall, the independent review concluded that ODA's objective of creating an effective in-house SED capacity had been accomplished. In the next three years ODA intends to focus on impact assessment as one

⁴⁹ See: "GTZ's CEFE Programme Evaluated," Small Enterprise Development, Vol. 6, No. 2 (June 1995), p. 59.

⁵⁰ For a more detailed description see: ILO, "Report on Work in Progress in the Production of Guidelines for Small Enterprise Promotion and development," Opt. Cit.

⁵¹ See: ODA Annual Review 1993

⁵² See: ODA Annual Review 1994

⁵³ For a more detailed description of ODA's program and review of SED activities see: "ODA Strategy for Supporting SED," Small Enterprise Development, Vol. 7, No. 1 (March 1996), pp. 60-61.

⁵⁴ Ibid.

of its main focal areas for their small enterprise programme. *ODA also intends to give particular attention to the capacity building of private-sector intermediary institutions which can deliver services, both financial and non-financial, on a sustainable basis.* Moreover, ODA's future strategy is to enable the poorer members of society, especially women, to improve their incomes, increase their assets, and reduce their vulnerability.

The World Bank

The World Bank Group support for private sector development is longstanding. In January 1989, its focus was articulated in an action plan.⁵⁵ According to the World Bank, the private sector is now a recognized area of emphasis for the Bank although there is not yet a formal and comprehensive policy.⁵⁶ In 1995, the Bank Group's support (\$US 25 Billion) focused on helping countries create a more favourable environment for private businesses, catalysing funding for private enterprises, and reforming and strengthening their financial sectors.⁵⁷

In area of small and medium enterprise development, the primary objectives of the World Bank lending to SMMEs projects are as follows:

- 1) strengthening of financial and technical institutions that serve small and medium enterprises;
- 2) job creation at relatively low cost per unit of capital invested; and
- 3) correction of imperfections in financial markets that constrain small barrows from access to credit.⁵⁸

In the last few years, the Bank has focused activities which utilize local financial intermediaries as the main instrument for transferring resources to this sector. The Bank has expanded the access of private small and medium-sized enterprises to unsubsidized finances and to technical assistance. For example in Moldolva, enterprises can now obtain pre-export finance from private financial intermediaries and trading companies. *Support has been given to businessmen to improve their technical, managerial, and entrepreneurial skills.* In 1995, the Bank has supported local business associations in Egypt in the process of privatization.⁵⁹ In Kazakhstan, the Bank is funding a pilot project that supports study-tour training so that enterprise managers can learn from the experiences of successful US firms.⁶⁰ Support is also being given to existing informal savings and credit institutions, including NGOs, in order to reach low-income households.

The World Bank like other donor organizations has recently begun to increase its emphasis on the small and micro-enterprise sectors. One of the Bank's major aims is the full sustainability

⁵⁵ See: The World Bank, "Developing the Private Sector: The World Bank's Experience and Approach," (Washington: The World Bank, 1991).

⁵⁶ See: The World Bank Group Annual Report 1995, p. 17.

⁵⁷ Ibid, pp. 29-30.

⁵⁸ See: Leila Webster, "World Bank Lending for Small and Medium Enterprises: Fifteen Years of Experience," World Bank Discussion Papers, No. 113, 1991.

⁵⁹ See: The World Bank Group Annual Report 1995, p. 34.

⁶⁰ Ibid.

of its programme. An enterprise programme can be considered sustainable, “when it is able to deliver an appropriate level of benefits to the client group for an extended period of time after major financial, managerial and technical assistance from an external donor is terminated.”⁶¹ The Bank says it that “Chooses only the strongest intermediaries . . . as participants, and [ensures] that the business plans and financial statements are given utmost importance when judging the impact of their resources.”⁶²

It is difficult to review all the activities which the World Bank is currently involved in. This is true for all donor agencies but specially true for the World Bank simply because of its size and the size of the individual projects. Currently the average size of projects ranges between 100 million dollars to 400 million dollars. A single project often contains components for specific objectives which are larger than the total IDRC spending on the same issue globally.

In this area of strengthening

R&D linkages between the domestic institutions and enterprises, largely but not all SMMES, the Bank currently has projects planned in eight countries with significant allocation of resources. It is important for the Centre to find ways to link with these and other projects, to share knowledge, generate information on best practice and so on.

Finally, it would be useful to briefly highlight a new initiative which it has focused on in the last year and intends to support in the coming years in order to assist the small and micro-enterprise sector. In June 1995 under the auspices of the World Bank the Consultative Group to Assist the Poorest (CGAP) was established.⁶³ CGAP is a multi-donor effort to reduce poverty by systematically focussing resources in the field of micro-finance. The group’s aims include the following:⁶⁴

- 1) strengthen donor coordination in the field of micro-finances;
- 2) increase learning and dissemination of “best practices” for delivering financial services to the poor on a sustainable basis; and
- 3) create an enabling environment for micro-finance institutions. In its first, year of operation, CGAP will focus on research and information dissemination as a major priority.

The Committee of Donor Agencies for Small Enterprise Development (SED)

In addition to information provided by the individual donor organizations on their activities and priorities, another important resource basis over the last few years has been the various meetings of the Committee of Donor Agencies. In particular, the meeting held in Budapest (9

⁶¹ This definition is provided by the International Labour Organization (ILO) in the Report by the Working Group on Non-Financial Services for Small Enterprises at the discussion by the Committee of Donor Agencies for Small Enterprise Development in Frankfurt on 16 April 1996.

⁶² As quoted in the report above, p. 22.

⁶³ CGAP provides grants or loans to registered participating institutions which provide financial and related services to the poor, provided they meet eligibility criteria.

⁶⁴ See: <http://www.worldbank.org/html/cgap/about.html>

June 1995) and the most recent meeting in Frankfurt focused on the production of guidelines in the area of non-financial services for small enterprises.

For IDRC, *one of the issues discussed at the meeting in Frankfurt is the issue of networks and linkages as micro-level instruments and developing lessons and better practice in this area was considered most important.* Donor experiences in supporting the creation and strengthening of networks and linkages suggest that the principal lessons are:⁶⁵

- There is a need for a "broker" agency which can facilitate the creation of business networks and linkages (i.e., identify and introduce potential partners, promote the concepts and opportunities, provide advice, information and technical support).
- The formation of business networks and linkages takes time. Donor funding should allow sufficient time before the benefits of initial lead time activities (such as promotion, identification, exchanges) can generate benefits.
- Training is an important activity supported by many donors. It may be provided to entrepreneurs or to workers, to improve their competence in running an enterprise or in its production processes.

Support for improving the capabilities of SMMEs is directed largely at three types of activities, namely training, consultancy services and information.

Training

Training often includes technical training to improve the technical skills and capacities of enterprises, entrepreneurial training to improve the entrepreneurship and management skills within enterprises; and, organizational training to enhance the capacity of counterpart or intermediary organizations to represent their members or provide services to entrepreneurs.⁶⁶ Training has not been important in IDRC projects and to the extent it is covered it is usually aimed at the meso level institutions.

The Inter-American Development Bank in its recent statement argues that "the quality of training offered to micro-enterprises is generally low [and that] many traditional training and technical advice programmes have been compulsorily tied to credit. But the topics are not always closely linked to the skill areas required by the micro-entrepreneur; [Whilst] the methodologies for providing training often ignore the best practice techniques for transferring

⁶⁵ The lessons below were directly taken from the survey report of the Working Group on Non-financial Services for Small enterprise Development prepared by ILO, "Guidelines for Small Enterprise Promotion and Development," Opt. Cit. pp. 34-35.

⁶⁶ At this point training becomes a meso-level intervention.

information to individuals with little or no formal education.”⁶⁷

There are a number of new innovations in training that donor agencies believe to be of particular value for small enterprise development. These include: demonstration projects - projects which show new techniques and methodologies; voucher system - where entrepreneurs are issued with vouchers that can be spent on training with any of a number of accredited training providers; and the creation of training 'multipliers' through, for example, the training of trainers (or even training of trainers of trainers) so that the benefits of training can reach further into the community of entrepreneurs.

Consultancy Services

Consultancy or counselling, like training, is provided to entrepreneurs to improve their competence in running an enterprise. In contrast to training, counselling is a specifically tailored service provided to an individual enterprise or to small groups of enterprises and usually addresses a particular problem.

UNIDO makes the reasonable point that “direct one-to-one assistance to enterprises is a costly method” of support to small enterprises, and these approaches are being used less. Instead, “assistance through collective actions,” involving guidance, information and training to groups of enterprises in the same or related sub-sectors is being pursued. In this respect, support to upgrading, inter-enterprise specialization and cooperation in sub-sectoral clusters of enterprises is considered to be one of the most promising approaches to support the competitiveness and growth of SMMEs. Similar findings were highlighted by other donors such as ILO and GTZ.⁶⁸

Business advice and counselling can often be provided in non-formal ways. An analysis of the conditions facing local entrepreneurs may identify some existing patterns in this regard. Entrepreneurs, for example, may seek advice from friends or relatives, they may meet informally with others working in the same sector, or they may visit nearby towns or villages to learn from how things are done there. The ILO, along with other donors, is trying to build upon these informal and spontaneous networks and processes to create relevant, cost-effective and sustainable programmes.

The donors believe that the principal lessons of providing consultancy support are:⁶⁹

- The training of counsellors should include counselling functions and methodologies, as well as communication and advisory skills.⁷⁰
- Intermediary organizations should be encouraged to ask clients to pay for counselling time. This reduces programme costs and ensures that the advice

⁶⁷ As quoted from the ILO survey report, 1996, Opt. Cit., p. 35.

⁶⁸ Ibid.

⁶⁹ These lessons were directly taken from the ILO survey report, Opt. Cit. p. 37.

⁷⁰ At this point training becomes a meso-level programme intervention.

and assistance provided meets the expressed demand of the client.

- Counselling services to small groups of entrepreneurs produces savings in overall costs without reducing the quality of advice. (At this point training becomes a meso-level programme intervention.)
- It is often best to investigate the capacity of the local market to provide consultancy services, rather than the donor providing the service itself or creating a new institution for this purpose (never a sin in IDRC projects).
- Important assistance can be provided in establishing quality standards for consultancy service codes or practice etc.

Information Services

Finally, information services are supported by all donors. They vary from: technical publications on specific aspects of production; source books and guides on assessing viability; information to assist entrepreneurs identify viable business opportunities; manuals or guides on market research and business planning; contact information for local enterprise development agencies and services product, process and technology information.

The use of information requires a level of literacy, an understanding of certain concepts, and access to publications which can limit the direct use of information by entrepreneurs.

In some cases information has been sold to entrepreneurs to help recover costs. In Kenya, for example, the FIT (Farm Implements and Tools) project of the ILO and Government of the Netherlands, encourages the sale of information to micro-entrepreneurs by local hawkers.⁷¹ Advertising space on the information sheets is also sold to larger firms to raise additional revenue.

An excellent summary of donor activities and emphasis in the area of SMME programmes is provided in the ILO summary of a recent meeting of the Committee of Donor Agencies for Small Enterprise Development. A very short summary is provided here. It is important for IDRC to be a member of this Committee as it provides a useful venue to keep abreast of work in the area, to explore joint initiatives and to encourage the diffusion of IDRC research into larger action programs.

IDRC AND THE SMME SECTOR: INTERVENTIONS AT THE MACRO AND MESO LEVELS

IDRC has contributed by supporting research on the SMME sector by all its program divisions through its history. Two extensive compilations have been made of IDRC support to research

⁷¹ ILO survey report, Opt. Cit., p. 38.

on SMMEs.⁷² They come up with a list of between 300 and 400 projects supported by the Centre over its 25-year history. These can be grouped in various ways, by the division which supported the project, the thematic area and objectives of the projects, their geographic focus, size and so on. The report by English pays greater attention to the categorization of the research by the supporting IDRC unit. We will attempt to provide here an overview which looks at past support from the perspective of the three levels of intervention discussed earlier while we follow much of the earlier analysis by English. Broadly the IDRC support divides into the two broad categories of Macro level and Meso level studies and interventions.

The initial work at the meso level started with a technology orientation with “The Post Production Systems Program” within the old Division of Agriculture, Food and Nutrition Sciences. This support, from its inception in the early 1970s, related to the development of low, cost, semi-mechanised, smaller scale devices and processes to transfer agricultural and food products from the first stage of harvesting. Examples of technologies promoted include: crop drying and storage, hullers, shellers, oil seed crushers and so on.⁷³ The initial work focused strongly on development of equipment, improved processing methods and alternative uses for raw materials from a technological point of view. As far as we have been able to find there is no explicit information on what was achieved and what lessons were learnt. As these ideas evolved later projects funded a wider set of activities to support the selection and design of projects (market research surveys, workshops) and the dissemination of experiences (networks, publications, training courses).⁷⁴ Again, however, there is no information available if this change to a more comprehensive, complex and expensive approach improved the results attained.

There was soon a parallel initiative following the meso level projects to introduce new technologies for farm products to projects with a social science perspective at the macro level. This is a more heterogeneous collection of projects, but they reveal some common themes important among them is a concern for the conditions of employment.⁷⁵ An early set of projects looked specifically at employment opportunities in the rural areas. They addressed a variety of economic issues ranging from employment implications, growth potential and regional development.

This was followed by a growing recognition within the Centre that the fate of the SMMEs is often more dependent on the overall policy environment than on specific programs designed exclusively for small enterprise. Similarly, otherwise good technologies, may amount to nothing because of policy distortions or perfectly legitimate forces (i.e., identified demands) that were ignored during the R & D process.

⁷² See: English 1993 and Davis 1996.

⁷³ Reception institutions at this time were defining the needs of the sector without showing the evidence that there existed a demand or validating their proposals for technical change with potential beneficiaries.

⁷⁴ English, 1993, p. 20.

⁷⁵ Some projects focused on the need for training, or its effectiveness, and a few, on the specific situation faced by women.

The social science groups within the Centre have focused considerable support on macro level interventions. In the mid-1980s, several social science projects on handicrafts and artisanal production were supported. These covered issues such as employment and foreign exchange generation from the sector, the socio-economic conditions of artisans, and particular constraints faced by this sub-sector. Later in the eighties the social science framework moved from a descriptive frame work to a policy type one. Some focused on the effects of macroeconomic, trade and sectoral policy and of structural adjustment programs on small businesses.

Additional macro level policy oriented studies included those from the Science and Technology Policy perspectives. The first project in the area identified the importance of the consulting sector to industry. The Centre went on to fund many projects dealing with issues of technology choice and technological capability in small-scale industries and covered issues of the characteristics of technologies used in small-scale industries (SMMEs); the factors affecting firms' choice among competing technologies; the channels by which SMMEs have access to new technologies and technical information; the effects of the introduction of improved technologies on firms' technical and economic performance; the extent of process and product innovation by SMMEs themselves; the degree to which technical and managerial skills necessary to assimilate or develop new technical solutions have been built up within SMMEs; and, the effect of various government policies on the technological behaviour of SMMEs.⁷⁶

These projects are distinct from other Social Science projects in their focus on the technological aspects of SMME behaviour at the meso level and their ongoing relevance to the current thematic focus.⁷⁷ Several projects have been funded in Southeast Asia to study the process of gaining access to and adopting new technologies among small and medium-sized firms in selected industries. Researchers surveyed firms to determine what their technology and management needs were, and how they attempt to access technological solutions to their business problems. The project in Malaysia presented policy recommendations (a macro intervention) to national government for the creation of a national network of "Local Technology Centres." These projects led to further development of tools which can be used by support institutions to provide a holistic diagnostic of SMME needs.⁷⁸

While the earlier initiatives in post harvest technologies provided the beginning of IDRC involvement in technology upgrading, the introduction of new products and processes, the work begun by three programs: the Technology for Local Enterprises Program (TLEP), the Earth Sciences Program (ES) and the Program on Innovation Systems Management (PRISM) *

⁷⁶ See: English, Opt. Cit., pp.17-18.

⁷⁷ Another set of projects, often heterogenous in their origin and application, can be included in this social policy program. The common theme is the condition of employment. Some projects focused on the need for training, or its effectiveness, and three on the specific situation faced by women.

⁷⁸ More recently, in 1992, IDRC established the Company for the Technological and Industrial Development of Central America (COETI), which aims to match the needs of regional SMMEs with technologies resulting from the region's national research efforts. See the seminar: "Methodologies and Tools for the Improvement of Competitiveness and Environmental Performance of Small and Medium Sized Industries in Central America," San Jose, Costa Rica, March 18-21, 1996.

provided a major raise in support and are the main precursors to current initiatives on SMMEs at the meso level.⁷⁹ All of the projects supported by TLEP and most of the PRISM projects were designed to benefit small and medium-scale enterprise. The first set of initiatives expanded the coverage within the Centre from agriculture related products to the “Utilization of Local Resources” to the strengthening of linkages between intermediary institutions and SMMEs. Within this frame work emphasis was placed on Industrial Chemicals, Industrial Minerals and the Recovery and Use of Waste, the latter projects were precursors to the later shift to environmental sustainability and cleaner production (see the section on current priorities at IDRC).

Finally, a pivotal intervention at the meso level by the Centre focused on the support of information services for industry. The program mission of Information Sciences (IS) stated that it would “assist industrial enterprises to apply science and technology knowledge to the production of goods and services that will enhance the quality of life of populations in developing countries through the processing of food, the production of building materials, management of energy resources, etc. and, in the process, to help generate employment.”⁸⁰ The goals were to bring information to the level of small and medium industries so that this knowledge can be applied to increase their technological capacity, resulting in better quality products, and to increase the ability to use local raw materials and local technologies to provide better opportunities for developing countries to become more competitive in a world of rapid technological development and fierce competition in international trade.⁸¹

However, as we have stated the information needs of SMMEs are very broad, therefore, before establishing any industrial information service, the specific needs of the target group of industries must be prioritized to ensure appropriate services. They can include technological information, information on products, raw materials, and specifications, and information related to marketing and sales. Many times the Centre gave priority to projects that offer information services directly to the users through extension visits and consultancy services. Thus, the recipient institution must have a mandate to assist SMMEs and be in close contact with small industries. Such a task is understood to be better performed by associations of industries, industrial research institutes or NGOs directly involved with SMMEs and to a great extent by Ministries of Industry or their equivalent.⁸²

After 1985, work in this field was systematically initiated and expanded. Since then, about

⁷⁹ For example, “Microprocessor Applications” was an initiative to bring state of the art technologies to SMMEs. TLEP funded four projects in this area. The first one, “Microprocessor-Based Instrumentation/Singapore (85-1024),” resulted in the formation of a small enterprise which is now fabricating and selling hardware and software for real-time process control, using artificial intelligence software.

⁸⁰ See: English, 1993, Opt. Cit., p. 24.

⁸¹ See: English, 1993, p. 24.

⁸² As English pointed out the subject scope of the Information Sciences Division program is also very wide and covers virtually all industrial sectors. Priority, however, has been given to cottage industries, agro-industries and food processing, building materials, leather, and woodworking. See: English, pp. 24-25.

forty projects were developed under the industry and technology information program.⁸³ Although the program definition includes all industrial sectors, the initial approach has been to look at projects that are multi-sectoral and provide industrial and technological information services to small and medium enterprises. Information systems on patents and standards were also included in the program.⁸⁴ Since 1986/87, the priority has switched to national industrial information projects that serve SMMEs or promoters more directly.

IDRC's Review of Information Projects

The Centre has undertaken very few comprehensive reviews and evaluations of its activities in SMMEs.⁸⁵ The Evaluation Group up to 1996 has only listed 3 reviews.⁸⁶ It is important to highlight briefly the review of the information projects and some of the findings. The Information Sciences Division in 1992, decided to review more than 50 projects dealing with SMMEs. The review found that only 50 per cent of the projects targeted SMMEs directly and 90 per cent of the projects were found to provide technological information.⁸⁷ *One of the findings of the review was that the consultants found it difficult to evaluate the development impact of the information projects, the study concluded that at best all 20 projects have helped to raise users' awareness of the value of information.* One preliminary recommendation of this report is that there is clearly a need to evaluate in a comprehensive manner all recent (1990-1995) SMME projects in the various divisions, programs and initiatives.

CURRENT PRIORITIES AT IDRC

In the latest structure at IDRC the work supported by the Centre is organised into five themes and also there are eleven international secretariats.⁸⁸ The five themes have as their emphasis Biodiversity, Food Systems under Stress, Information and Communications, Technology, Environment and Society, and finally, Integrating Environmental, Social, and Economic Policies and within their ambit cover 27 Programme Initiatives. It is not possible in a short review to examine the work along 27 initiatives and of 11 secretariats to determine all the

⁸³ Up to 1985, the Division's involvement in the field of Industry and Technology information was dominated by a single activity: Technonet Asia. This activity was intended to give the Division an experience upon which to measure the needs of users of industrial technical information. This activity, however, has had some very mixed reviews. Although recent information shows that this organization has successfully received support from several donor agencies and continues to provide services to the SME sector in South East Asia and South Asia.

⁸⁴ There were also three global projects, with Satis, an international information system on appropriate technology, and the Information Commission of the World Federation of Engineering Organisations (WFEO).

⁸⁵ The exceptions include: George Hénoult and Marths Melesse, "Information for SMEs: An Evaluation of the Industry and Technology Information Sub-Programme," (Ottawa: IDRC, October 1992), and John A. Holub, "Evaluation of Technology Transfer Projects for Small and Medium Sized Industries in Singapore, Malaysia and Thailand," (Ottawa: IDRC, September 1991).

⁸⁶ See the current updated 1996 list of evaluations already undertaken by the Evaluation group at the Centre.

⁸⁷ See: Hénoult, Opt. Cit., and "IDRC Reviews Information Projects," Small Enterprise Development, Vol. 5, No. 2 (June 1994), pp. 59-60.

⁸⁸ See: *International Development Research Centre: The Research Program*, (Ottawa: IDRC, 17/04/96).

possible linkages between the themes, the actual linkages between them and the desirable ones. But clearly there are potential linkages between many of them. For instance the theme on Biodiversity aims to promote community level innovation, the use of wild biodiversity to generate income and employment in rural areas and will promote community-based development of natural products such as medicinal plants, minor forest products, agricultural products and essential oils with the potential to increase rural incomes.

The review of IDRC support indicates that these objectives and focuses have some of the same preoccupations as the earliest IDRC technology generation projects. They have included, in their current reincarnation, a greater focus on community participation and on actions which simultaneously protect the environment. It is not clear from a cursory review as to how the community level innovations will be generated. Do the communities require intermediate service institutions as do farmers and SMMEs? If they do, what lessons can be applied from past support provided to generate agriculture related innovations? By focusing on the community level is the underlying assumption that this is a more desirable area of focus on equity and environment grounds? Or, is it because it is also an area that has been neglected by others and IDRC effort here is more unique as it was 25 years ago in focusing on post farm innovations and innovations for SMME using natural or local resources? The emphasis on community level economic activity and management may suggest a focus on micro production and/or on resources which require community level management. Only when one is more informed on the subset of focus, the questions as to the relevance of past work for the current initiative, and the desirability, or otherwise, for these efforts to be linked to the work on SMMEs can be more accurately addressed.

The food systems theme also mentions developing agrifoods as one of its priority. Some fraction from zero to 100% of its focus could be with small scale production, and hence on similar questions of technology, linkages and information for the SMME sector, but concentrated in food sector activities. The Pan Asian Network and the learning and communications systems could also focus different fractions of its resource on support for the SMMEs. Similarly, the work on Environmental, Social and Economic Policies may or may not decide to have as a priority issue within its themes the questions of SMMEs. *It is not possible to suggest here the degrees to which such linkages could and should exist between the themes. But it is obvious that there will always be a certain element of overlap and depending on the priorities, objectives and transaction costs, greater or smaller levels of linkage should be established.*

The Theme: Technology, Innovation and Society

As the theme which explicitly incorporates the PI “SMME innovation and technology” this group can be considered to provide the primary level of support to all work related to SMME and we should examine its current focus. The experience of IDRC and other donors over the past 25 years has demonstrated the complexity of providing support to SMMEs. Many projects which have tried a simple information and technology-push approaches are not very effective is the starting position. Improved solutions must be more strongly based on the local needs and capabilities and must be well integrated within a network of supporting policies and institutions

for longer term impact is an appropriate statement of some lessons learnt.

With this the new directions for IDRC work are appropriately grouped under two broad initiatives:

- promoting sustainable sources of non-farm employment;
- reducing the environmental impact of small-scale industrial and agro-industrial activities

The overall objective of this theme is “to support a process of innovation, technology diffusion and enterprise development in order to contribute to sustainable employment and improved human health in developing countries, while at the same time maintaining or improving the quality of the physical environment.”⁸⁹

For the reasons outlined earlier, the theme states that the new emphasis will be placed on strategies which provide net economic benefits from reductions in contamination, both through the development of new, value-added uses for industrial and agro-industrial wastes, and via process optimization strategies which enable firms to improve their competitiveness by reducing waste, cutting input requirements, and improving product quality. A key concern for IDRC will be to understand the policy and institutional frameworks necessary to promote the diffusion of the “cleaner production” approach within the small enterprise sector.

The promotion of the application of “frontier technologies such as biotechnology to the solution of key environmental and social challenges facing developing countries will also be promoted. It acknowledges that while IDRC’s role in the development of these technologies is limited -- and is clearly dwarfed by private sector investments -- it can nonetheless play an important role in developing mechanisms and strategies to promote the responsible application of biotechnology in developing countries and to promote the growth of the local biotechnology industry. In light of the controversial nature of this field of technology, particular emphasis is placed on the strengthening of policy frameworks, and the monitoring of the economic, social and environmental impacts of biotechnology applications.

The theme statement goes on to state that “work in these areas is united by a concern to foster the process of innovation, not simply the development of particular technologies. Work spans the assessment of the needs of clients and beneficiaries; the development and testing of technological solutions to meet these needs; the development of strategies and mechanisms to promote the diffusion and commercialization of improved technologies; and, the monitoring and assessment of the social, economic and environmental impacts of new technologies.

The various application areas are also united by an emphasis on small, medium and micro-enterprises (SMMES) -- as sources of employment growth, as contributors to environmental degradation, and as key actors in the development and diffusion of improved technologies to meet environmental and development goals. Cross-cutting the fields of application outlined above, therefore, is a concern with institutional and policy frameworks to strengthen the small

⁸⁹ See IDRC 1996 themes statement.

enterprise sector. A particular focus is placed on the development, pilot testing and diffusion of novel approaches to the provision of innovation support infrastructure for SMMEs. This involves both efforts to improve the outreach capability of formal R&D institutions, and also the development or strengthening of intermediary institutions which can provide a range of services to smaller firms.

Cross-cutting emphasis is also placed on strategies for technology commercialization by small firms (including community-managed cooperatives). Expertise in this area will serve as a resource not only to the "sectoral" interventions outlined above, but also to similar activities being supported under other themes (e.g., the work on natural products under the Biodiversity theme, or on agro-industrial products under the Food theme). Research supported under the theme will result in three broad sets of outputs:

- a) a number of targeted interventions to promote the development, application and commercial diffusion of improved technologies to meet key environment and development problems.
- b) development and pilot testing of innovation support infrastructure geared to the needs of smaller firms. While a large number of donors are active in the field of small enterprise development, most initiatives focus on credit issues. The Centre has a recognized expertise in issues of innovation support structures and services, and is well placed to act as an "incubator" for new ideas in this field.
- c) improved understanding of the determinants of innovation, particularly in the small enterprise sector. This kind of research is an indispensable complement to more "action-oriented" research. The emphasis will be on applying research resources strategically in order to respond to key knowledge gaps. Of particular interest in this regard will be work on the potential for application of cleaner production strategies in the small enterprise sector, and the constraints to the development, diffusion and application of cleaner technologies to smaller firms.

The theme statement then provides different priorities for and perspectives to guide work in the different regions.

In Africa, the small enterprise sector is seen as the key to future employment growth in the region, but support institutions are weaker than in other regions, and there is a greater shortage of technical, managerial, marketing and other support services. The focus of activities, therefore, will be on strengthening basic innovation support infrastructure, and on supporting the development of industry-led initiatives to provide services to firms.

In Latin America and the Caribbean, the small enterprise sector is stronger, but faces the dual challenge of adjusting to increased import competition and adapting to more stringent environmental pressures (both regulatory and trade-related). The Centre will build on the considerable experience in the development of policy and institutional frameworks for the small enterprise sector (e.g., the Central American industrial support network), and much of

the emphasis will be on consolidating this work and on initiatives to promote "cleaner" production.

In **Asia**, one of the overriding development challenges is to deal with the environmental impacts of a rapidly-growing industrial sector and the Centre's work will continue to focus on the promotion of technological and managerial inputs to promote "cleaner" production in small firms, with particular emphasis on process optimization options. Emphasis is also placed on the reform and revitalization of industrial technology research institutions.

This overview suggests that the theme statement is very well elaborated. It is coherent, it draws on earlier Centre work while adjusting to new priorities and opportunities, it attempts to provide appropriate linkages to other themes and attempts to provide certain very specific ways in which efforts will be concentrated. If there is any weakness to the theme statement or to the action program emerging from it that we can identify it is that greater attention should be devoted to the issues of learning from the results of past support, developing best practices and thereby allowing for greater diffusion and strengthening the Centre's position as a knowledge institution.

The SMMEIT Initiative

Within the theme there is supposed to be a more tightly defined set of activities under the initiative SMME Innovation and Technology. To a certain extent each initiative statement and the project pipeline within the initiative probably provides a better guide to the types of projects which may be supported and the future actions along the initiative.

Currently this initiative has four objectives:

1. To improve the understanding of Southern innovation systems in which SMMEs are important components in developing countries and develop policy options;
2. To assist in the improvement of intermediary institutions which provide technical, management, or financial services to SMMEs
3. To develop management-skills which are conducive to fostering development of the SMME sector; and
4. To selectively support the identification and development of new and/or cleaner technologies aimed at the development of a stronger small enterprise sector.

It is our views that there are too many objectives and they remain diffuse. Specially, the first one is too broad and does not make much sense without additional information on what aspects of the system we wish to improve our understanding and how this may be carried out.

The objectives could be collapsed and restated as:

To improve the understanding of IDRC on interventions designed to provide services to improve the efficiency, output, and employment in the SMME sector, and to transfer and diffuse such knowledge among the partners in the North and the South and encourage their wider adoption; to assist directly in the improvement of intermediary institutions which provide technical, management, or financial services to SMMEs, with special emphasis on the identification and development of new and/or cleaner technologies, where these interventions meet certain strategic objectives, which include support for new and innovative approaches; support for ongoing IDRC efforts which are midstream, and appear to be having the potential of high impact; which generate lessons and best practice and/or transfer successful innovations across regions and institutions.

The Initiative Outputs are given as:

1. Creation of jobs and revenue generation in Third World countries;
2. Efficient use of natural resources and pollution prevention strategies at the industry/firm level;
3. Development and improvement of competitiveness and environmental performance of SMMES through access to new and/or cleaner technologies;
4. In depth analysis to identify prospects and constraints of key industrial sub-sectors dominated by SMMES;

Again the above statement suggests a continued tendency to argue for projects at a very broad macro level. We would suggest that these arguments have already made and what is in the above section is really a restatement of the justification and the background for Centre involvement in SMMEs.

The immediate aim of the Centre interventions should be to generate new knowledge, to develop innovative practices, document what works and how well, and transfer and multiply the lessons learned. This way of reformulating the outputs suggests that the Centre itself is an intermediary institution which can make the maximum contribution by influencing others and not by the jobs, growth in outputs or reductions in pollution directly generated by the dollars it invests. Certainly there will be some such direct benefits just as a drug trial will result in some patients receiving improved care and it can be shown that those individuals received direct improved health benefits. But the ultimate objective of the trial is not the patient benefits directly attributable to it but its value in demonstrating the efficacy or otherwise of certain procedures. Where new and more efficacious procedures are demonstrated the longer term value is in the extent of their implementation.

The documents also provide a more detailed description of the Initiative. Again we believe that

the first area "Innovation Policy and Management for SMMEs" is too broad and does not indicate a strategic orientation.

The second "Improving SMMEs Support Institutions and Programs," the third "Improvement of Management Skills" and the fourth "Access to Technologies" really describe different components of an overall objective and should be collapsed. To make the same point again for emphasis, the description states "in Africa, some projects will focus on the development of clean technologies for the production of value-added products from agro-industrial materials and by-products. Efforts will specifically be targeted at increasing rates of economic growth with expanded employment opportunities while promoting efficiency in the use of raw materials and energy, eliminating and reducing the amounts of harmful wastes, and promoting recycling practices" which we believe are very similar in their orientation to earlier Centre projects and current plans across themes. The importance of reviews of past experience to guide this cannot be overemphasized.

CONCLUSIONS

A central objective of all IDRC initiatives in the SMME sector has been to develop and adapt modern technologies for use by small and medium industries in developing countries. It was hoped and presumed that technological support for such activity would raise output, raise the demand for labor, and generate substantial benefits for relatively low income families. *It has been argued at several points in recent documents, and in past years, that one of the reasons for support for projects to support the development for small and medium enterprises lies in the fact that few other international or national agencies have greatly concerned themselves specifically with this sector. If that was probably true in the past, the listing of a few donors' activities suggests that is no longer true in any overall sense.*

Much is now known in a descriptive vein about the economic characteristics of both micro enterprise and SMMEs and what IDRC projects have contributed to the knowledge in the field. There are now no doubts that these sectors will remain important providers of employment, generators of entrepreneurial skills, and frequently also efficient users of resources. But, less analysis has been done on how these sectors have changed over time in terms of employment, labour productivity, capital intensity, etc. and how economic policy and the environment affect their performance. Understanding what policy levers can be used to assist the SMMEs is unfortunately much harder than simply understanding their general character. Many of the recent changes have been toward "free market economics" where "distorting interventions" of the state are removed. But in some cases, this process also removes or reduces the special support systems for SMMEs which we have said are crucial to the sector. So the net impact of the policy changes on SMMEs cannot be assumed to be positive or even neutral. Some commentators have argued that the changes in policy environment in many countries, specially in Africa, have been negative. *There will be considerable value to policy oriented studies which are tightly focused on questions which are explicitly or implicitly on the current policy*

agenda. The descriptions of policy oriented work does not provide confidence that there is such a tight focus.

The interest of other donors and their financing for similar projects does not on its own imply that the Centre should withdraw from the field. In fact the growing interest of other donors should be taken as a vindication of the earlier efforts and should lead to a strategic reorientation of efforts. It should move from planting many seeds to begin to harvest the results of earlier efforts by increasing the percentage of efforts devoted to cofunding and joint activities with others. The Centre continues to enjoy certain comparative advantages in projects which have a technological focus, those of a smaller size than other donors, and those that can draw wider lessons of effective technological interventions and innovation and those which draw from a wide set of experiments across countries, donors and sectors. But it implies two changes in Centre practices. First, it must be more closely involved in other donor activities and mutual exchange of information. This will allow two way learning to take place, allow for cofunding arrangements and for successful Centre initiatives to have greater chance of being replicated. This quick review suggested that the Centre needs to devote more resources of staff time, information collection and program funding to this aspect.

Funding priorities have always appropriately been to applied research or technical development in production processes requiring low capital investment, in technology using indigenous raw materials and local resources, and for new products that would be accessible to urban and rural poor, in activities that would improve the efficiency of SMMEs, or in environmental concerns that would relate to local enterprise. *The broad priorities have been excellent in the past and have evolved naturally to the present and should continue. If there are problems it is in the practice.*

An earlier reviewer said that the efforts “cannot yet be assessed in the ex post way which is desirable; perhaps five or so years hence it will be possible to judge the extent to which objectives have been reached on the basis of information on usage and effects of the technological improvements.”⁹⁰ The time for this is well past and it still remains an important objective today. *A significant body of knowledge now exists within IDRC on the subject of SMMEs, what kinds of technology are most useful, and what sorts of projects work. This indicates that the learning process is at work within the Centre, however, most of this knowledge is embodied in staff. It needs to be captured more systematically, so that it is not lost by staff attrition or relocation, and is available for wider dissemination and replication. The donor committee recommended that all agencies involved in this area should endeavor to earmark at least 15% of their resources to generate lessons learned. Given its greater strategic importance for IDRC and the low emphasis on this in the past perhaps for IDRC a ratio of 30% of funds devoted to generating lessons and diffusing results may be more appropriate.*

There is a dearth of reliable data on the process of technological improvement in the SMMEs. IDRC experiences are worth drawing upon in trying to get a broader picture of this process,

⁹⁰ See: English, 1993, Opt. Cit.

what works and what does not, what types of intervention are likely to backfire for one or another reason, how the background, education and training of the entrepreneur matters in the process, and so on. The institution should expand its efforts to write up and interpret these experiences, and place them in the context of other work being carried out in this field as part of the general learning process.

Past evaluations have tended to focus on intermediate goals and the successful provision of inputs, such as doing research on a new technology, increasing resources and interests to begin desirable activities, getting the information system in place and so on, rather than on the application of results, the lessons learnt and the ultimate payoff in socio-economic terms. The latter are of course more difficult and require a greater lapse of time after project completion, but the Centre would now appear to be at a stage in its evolution where such analysis is warranted and indeed necessary. Many early initiatives were begun far enough back to allow a better perspective on what happened to the technology and what the process of dissemination was. The sorghum de-huller is one example that was listed as being considered for just such a review but it appears to have dropped off from the priorities.⁹¹

Too often, all we know is that there was some initial development and sometimes even the adoption of a new technology, but we do not know much about what happened in the usually more decisive period some years later, by which time the technology may have been altered, dropped, or rendered irrelevant for reasons not easy to predict in advance.

The main objectives for the time being should be the consolidation of current activities with their size and sectoral foci. Expanding the coverage or the objectives should be avoided. The most important criteria which should govern the approval of future projects should include the extent to which they contribute to learning and innovation in delivery of services. They should also include the total expected payoffs and the degree to which successful efforts can be replicated.

A final question addressed to the reviewers was whether there were sufficient funds for the initiative. We have pointed out the sharp drop in funding to work in the area which would suggest the need for more resources. At the same time given the fact that the Centre support to the area is likely to be around 1% of total donor support and a smaller fraction if national support is included, it is not obvious that any a priori justification can ever be made for an absolute level of funds for the area. With any level of funds one can choose a certain number of high impact activities and the value of more resources should be justified by a comparative analysis of the value of all initiatives. But we have recommended that certain priorities should be established for funding and they include continuing support to potentially valuable ongoing efforts, support for new and innovative projects, support for a greater learning effort and finally, support for greater collaboration with other agencies. The pipeline of projects should be reviewed along these criteria and the review may indicate that all four types of efforts cannot be funded. In that situation a decision has to be made for more funds, greater linkages and /or making do with a rationed funding environment where some objectives have to be

⁹¹ See: English, 1993.

abandoned.

ANNEX 1: SMME PROJECT LISTS BY REGIONS**AFRICA**

Year/ Project Number	Project Title	Division/ Regional Office	Amount
1976			
76-0091	Small Farm Equipment (Ghana)	AFNS	30000
1979			
79-0066	Post-Harvest Technology (Senegal)	AFNS	113600
1980			
80-0015	Analysis of Local Technological Capabilities in Agro-Processing (Ghana)	SS	33500
1981			
81-0172	Social Accounting Matrix (Swaziland)	SS	47000
81-0236	Informal Employment in Lome (Togo)	SS	24200
			71200
1982			
82-0032	Technology Policy Studies (East Africa)	SS	436000
82-0236	Informal Sector Technological Capability (Sierra Leone)	SS	27300
			463 300
1983			
83-0105	Palm Oil Processing	AFNS	157700

(Sierra Leone)

1984

84-0016	Dehuller Development (Senegal)	AFNS	303200
84-0164	Technology Policy Studies Network (West Africa)	SS	412350
84-0248	Rural Industry (Burkina Faso)	SS	95680
84-0232	Documentation and Information Centre on Post-Harvest Activities CDIAP (Ivory Coast)	IS	172975
			984205

1985

85-0098	OAPI and Patent Information (Cameroon)	IS	342278
85-0223	Grain Dehulling (Malawi)	AFNS	166000
85-0226	CARICOM Trade Information System A Pilot Project (Guyana)	IS	87530
85-0277	Technology Policy Studies (East Africa)	SS	515200
			1 111008

1986

86-0062	Handicrafts Development (Kenya)	SS	78700
86-0063	Handicrafts Developments (Malawi)	SS	34600
86-0161	Technology Information Dissemination (Botswana)	IS	209480
86-0190	Grain Dehulling (Zambia)	AFNS	171800
86-0331	Artisans in Urban Centres (Togo)	SS	94800
			589380

1987

87-0019	Dehulling Testing (Niger)	AFNS	70000
87-0054	Informal Sector Assistance Policies (Kenya)	SS	77400
87-0115	Mini-Dehullers (Gambia)	AFNS	140000
87-0210	Small-Scale Aluminum Enterprises (Ghana)	SS	150710
87-0275	Sorghum Processing Pilot (Kenya)	AFNS	200900

			639010
1988			
88-0005	Technology in the Vegetable Oils Industry (Nigeria)	SS	32960
88-0035	Industrial Information System (KIRDI) Preliminary Phase (Kenya)	IS	76730
88-0127	Development of an Industrial Information Service (Mali)	IS	110100
88-0152	Laterite Housing (Ghana)	ENR	203550
88-0235	Strengthening the Industrial Information Service of SONOPI (Senegal)	IS	180980
88-0325	Urban Agriculture in Kamala (Uganda)	SS	4800
88-0332	Artisanal Fisheries (Kenya)	SS	80000
88-0345	Small-scale Enterprise Sector (Uganda)	SS	75000
			764120
1989			
89-0058	Vegetable Oil (Kenya)	AFNS	698400
89-0075	Inedible Vegetables Oils (Burkina Faso)	ENR	32155
89-0102	Technology Policy Research Network (East and South Africa)	SS	215480
89-0103	Technology Policy Research Network (West Africa)	SS	215480
89-0129	Urban Passenger Transport in Lagos (Nigeria)	SS	32450
89-0130	Traditional Credit Associations (Cameroon)	SS	29330
89-0166	Small Scale Fish Systems (Kenya)	AFNS	201500
89-0223	Groundnut Shellers (Senegal)	AFNS	55300
89-0231	Oilseed Processing (Kenya)	AFNS	193200
89-0293	Mangrove Salt (Guinea)	ENR	24033
89-1007	Baked Bricks (Rwanda)	SS/EES	266800
89-1032	Underground Mine Support (Zimbabwe)	EES	239400
89-1039	Processing of Cashew Nut Shell Liquid	ENR	240600
			2444128
1990			
90-0005	Rural Informal Sector (Tanzania)	SS	125740
90-0008	Patent Technological Information--ARIPO	IS	225740

	(Zimbabwe)		
90-0126	Sorghum and Millet Sub-sector (Tanzania)	AFNS	197400
90-0247	Dehuller Testing (Niger)	AFNS	96153
90-0267	Grain Dehulling (Malawi)	AFNS	159500
90-0327	Foundry Technology (Kenya)	EES	249650
90-1019	Wood Adhesives (Tanzania)	ENR	288200
90-1020	Small Scale Partial Acidulation of Phosphate Rock (East Africa)	ENR	438100
90-1021	Gold in Laterites (Senegal)	ENR	432702
90-1024	Red Algae Valorization (Senegal)	ENR	494000
90-1025	Tabersonine (Cameroon)	EES	388700
			3095885
1991			
91-0036	Industrial Strategy (South Africa)	SS	350000
91-0077	School Chalk (Tanzania)	ENR	96809
91-0081	Development Models and Assistance Programs (Kenya)	SS	93570
91-0092	National Industrial Information System (KIRDI) - Phase II (Kenya)	IS	176830
91-0102	TIRDO Extension Service (Tanzania)	IS	146955
91-0166	Development of the Industrial Information Service - Phase II (Mali)	IS	145730
91-0251	Urban Management and the Informal Sector (Tanzania)	SS	112640
91-0273	Grain Dehulling (Uganda)	ENR	140280
91-1001	Traditional Dyes (Guinea)	ENR	289597
91-1002	Aromatic Extracts (Guinea)	ENR	400013
91-1004	Industrial and Technological Information System (Zambia)	IS	249775
91-1051	Rural Cottage Tanneries (Zimbabwe) Systems (Zambia)	EES	228900
			2431099
1992			
92-0026	Oilseed Processing Network (Tanzania)	ENR	242660
92-0409	Informal Sector Organisations in Urban Administration (Uganda)	SS	94060

92-1003	Rubber Seed Oil: Finding Uses for a Waste Product (Nigeria)	ENR	309021
92-1350	Small Enterprise Creation (West Africa)	WARO	446540
92-1351	Industrial and Technological Information System (Ghana)	WARO	224279
92-8155	High Potential Ecosystems (West Africa)	WARO	394254
92-8166	Millet Transformation (Senegal)	WARO	296985
92-8450	Employment Role of Micro-Enterprises in Botswana	EARO	92274
92-8457	Growth Potential of Rural Non-agricultural Activities in Swaziland	EARO	75200
92-8458	Income Transfers and Macro-Economic Adjustment (Malawi)	EARO	41732
			2217005
1993			
93-1453	Baked Bricks (Rwanda)	EARO/CAI	447310
93-8161	Agro-Food Enterprises (West Africa)	WARO	479066
			926376
1994			
94-0608	Local Service Centres (LSC) Network (South Africa)	ISS/CAI	970000
ASIA			
1971			
71-0074	Technological Change in Thai Industry (Thailand)	SS	19500
1972			
72-0050	Industrial Extension Systems (Singapore)	IS	1342000
1973			
73-0019	Technological Change in Thai Industry	SS	23016

(Thailand)

1975

75-0078	Regional Industrial Cooperation	SPA	30000
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1976

76-0082	Technonet Asia - Phase II (Singapore)	IS	1675000
76-0096	Small Manufacturing Enterprises	SS	146500

1821500**1977**

77-0091	Socioeconomic Study of Small Scale Fisheries Development	SS	400000
77-0123	Small Industries (Mauritius)	SS	16000

416000**1979**

79-0024	Process Improvement (Singapore)	AFNS	95000
79-0151	Technonet Asia - Phase III (Singapore)	IS	488196

583196**1981**

81-0061	Process Improvement (Thailand)	AFNS	107500
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1982

82-0003	Choice of Technique in Spinning and Weaving (Bangladesh)	SS	34775
82-0038	Rural-urban Mobility and Labour (Southeast Asia)	SS	94200
82-0081	Isabela Postharvest Systems (Philippines)	AFNS	156500
82-0103	Employment and Foreign Exchange (India)	SS	300000
82-0174	Groundnut Shellers/Strippers (Thailand)	AFNS	179100
82-0221	Small Entrepreneurial Development (South East Asia)	HS	215190
			979765

1983

83-0048	Industrial Extension Manual (Singapore)	IS	97760
83-0260	Handicrafts Studies (Sri Lanka)	SS	59200
83-0264	Handicrafts Studies II (Nepal)	SS	85500
83-0265	Handicrafts Studies II (Thailand)	SS	59000
83-0266	Handicrafts Studies III (Philippines)	SS	92200
			393660

1984

84-0090	Handicrafts Studies V (Malaysia)	SS	81400
84-0096	Handicrafts Studies VI (Indonesia)	SS	88550
84-0328	Smallholders Livestock Development (Thailand)	AFNS	76700
84-0335	Artisanal Fisheries (Kenya)	SS	46495
84-1048	Technology Adoption SMEs (Malaysia)	ENR	129881
			423026

1985

85-0090	Smallholder Dairy Development and Extension (Indonesia)	SS	23000
85-1024	Microcomputer based Instrumentation (Singapore)	ENR	344469
85-1033	Technology Adoption SMEs (Malaysia)	ENR	262000

629469**1986**

86-0035	Food Enterprise (India)	AFNS	292700
86-0036	Fruit and Vegetables Processing (Sri Lanka)	AFNS	215900
86-0070	Economics of Fuelwood Production (Thailand)	AFNS	67000
86-0179	Oilseed Processing (Pakistan)	AFNS	224000
86-0262	Oilseed Processing Network (India)	AFNS	463700
86-0263	Root Crop Utilization (Philippines)	AFNS	166000
86-1003	Sebacic Acid (India)	AFNS	126400
86-1013	Rural Non-Agricultural Employment in Jiangsu (China)	SS	62100
86-1029	Microprocessor Modules for Machine Tool and Process Control (India)	ENR	739035
86-1040	Industrial Waste Exchange (Philippines)	ENR	231295

2588130**1987**

87-0027	Groundnut Industry (Philippines)	AFNS	234300
87-0041	Groundnut Mechanization (Thailand)	AFNS	234300
87-0053	Informal Sector Street Foods (India)	SS	38440
87-0117	Information Services - Industrial Development Board (Sri Lanka)	IS	176715
87-0145	Regional Socioeconomic Impacts of Export Processing Zones (Philippines)	SS	122900
87-1034	Technology Adoption SMEs (Thailand)	ENR	214200
87-1052	Technology Adoption by SMEs in Singapore	EES	216250

1237105**1988**

88-0009	Technonet Manual - Translation into Bengali	IS	25248
88-0039	Tea Information services (China)	IS	223600
88-0079	Process Improvement Brass and Bronze Foundries (Thailand)	ENR	105285
88-0089	Small Industrial Development in Thailand	SS	68500

88-0095	Regional Industrialization in Malaysia	SS	61000
88-0098	Rattan (Papua New Guinea)	AFNS	188200
88-0196	Biomass Roofing	ENR	165600
88-0240	Integrated Root Crop Program	AFNS	143500
88-0250	Rural Industrialization in Asia (Thailand)	SS	239000
88-0336	Micro-Enterprise Promotion in Secondary Schools (Thailand)	SS	177700
88-0339	Ferrocement Information Network Activities For Rural Development (Thailand)	IS	194100
88-0400	Manual Silk Reeling (India)	EES	68235
88-1015	Localization of Gem Deposits in Sri Lanka	EES	247184
88-1022	Microprocessor-based Process Control - Tea Drying (Sri Lanka)	EES	300773
88-1025	Network on Industrial Policies and Sectoral Incentives (Thailand)	SS	1356000
88-1065	Feasibility Study for the Implementation Of the Johore State Technology (Malaysia)	EES	79824
			3643749

1989

89-0112	Information Service for Small-scale Industries (Indonesia)	IS	98730
89-0127	Informal Sector (Sri Lanka)	SS	60470
89-0183	A Macro Policy Study on Small Enterprise Development for the Philippines	SS	47310
89-0199	Managing the Urban Informal Sector (Thailand)	SS	88190
89-0228	Bamboo Mat Board (India)	AFNS	189605
89-0280	Control of Manual Lathes with Microprocessor (Thailand)	EES	110400
89-0326	Evaluation of Occupational Health Service Systems (Korea)	HS	135920
89-1019	Improved Processing Techniques for Low-Grade Jute and Cuttings	ENR	232367
89-1035	Electroplating Effluents (Philippines)	ENR	237000
			1199992

1990

90-0084	Informal Sector in an Urban Economy (India)	SS	18570
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90-0107	Garlic Industry (Philippines)	AFNS	163260
90-0246	Meat Preservation (Philippines)	AFNS	141650
90-0354	Micro Impacts of Macro Economic Policies (Philippines)	ENR	207379
90-1028	Industrial Information and Documentation (Mauritania and Canada)	IS	113320
90-1045	Dobby Commercialization (India)	COMM	137007
			781186

1991

91-0050	Mixed Fibre Processing and Spinning (India)	EES	84872
91-0091	Post-Production Research Application - SEARCA (South East Asia)	AFNS	635269
91-1005	Sebacic Acid (India)	ENR	153540
91-1015	Use of Fly Ash in Cement (India)	ENR	180950
91-1023	Localization of Gem Deposits (Sri Lanka)	EES	398376
91-1026	Technology Adoption by SMEs (Thailand)	EES	237683
			1690690

1992

92-1302	Institutional Strengthening to Enhance Delivery Capability Services (Bangladesh)	ASRO	567550
92-8306	Small Scale Fishing (Sri Lanka)	SARO	50000
			617550

1993

93-0602	Technology Information Systems - JPS (India)	ISS/SARO	243000
93-8004	Technology Innovation and Sustainable Development (China)	ASRO	150000
93-8010	Waste Minimization and Pollution Control Small and Medium Enterprises (Philippines)	ASRO	142190
93-8023	Study on MSM Opportunities in Indonesian Kecamatan	ASRO	52000

93-8306	Development of Rural Microenterprises (India)	SARO	325000
93-8313	Status and Prospects of Small Enterprises in India	SARO	150000
			1062190
1994			
94-0806	Training of Entrepreneurs for Development (Pakistan)	CAI	49030
94-1201	Technology Transfer of Canadian SMEs to China	CAI	63200
94-8016	Pollution Prevention Technology Centre for SMEs (Indonesia)	ASRO	234196
			346426
Global			
1977			
77-0152	Industrial Extension Service: Canadian Resources	IS	271000
1982			
82-0213	Process Improvement Workshop(Vancouver)	FAD	48559
1986			
86-0276	Technology and International Investments by SMEs	SS	216090
1987			
87-1013	Canadian Foreign Investments through SMEs	SS	63240
1990			
90-0002	International Small-Scale Mining Information	IS/EES	347959

System

1991

91-11045	Cooperative Development (Yunnan, China)	SS	161555
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1993

93-0820	Best Practice for Research and Technology Organizations (RTOs)	CAI	450000
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Latin America and the Caribbean**1972**

72-0062	Industrial Extension Services (Brazil)	IS	7500
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1974

74-0137	Industrial Technical Information Centre SITI (Bolivia)	IS	49500
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1979

79-0131	Technical Change, productivity, and Scale Industry (Brazil)	SS	180000
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1980

80-0016	Plumbers and Electricians (Chile)	SS	32500
80-0018	Rural Non-Farm Employment (Nicaragua)	SS	152500

80-0100	Technical Change, Productivity, and Small Scale Industry - Medellin (Colombia)	SS	28000
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80-0153	Training and the Informal Sector (Chile)	SS	69000
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80-0156	Dissemination of Research on the Informal Sector (Chile)	SS	35000
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317000

1981

81-0018	Rural Non-Farm Employment (Nicaragua)	SS	152500
81-0118	Process Improvement Bakeries (Chile)	AFNS	68700
81-0221	Technology and Female Employment in Leather Goods Industry (Uruguay)	SS	21700
			242900

1982

82-0002	Fish Processing (Chile)	AFNS	146200
82-0027	Informal Urban Employment in Services (Bogota, Columbia)	SS	92500
82-0127	Informal and Formal Sector Employment (Bogota, Columbia)	SS	93500
82-0148	Informal Sector Enterprises (Peru)	SS	180000
82-0166	Mobility Within the Informal Sector (Ecuador)	SS	57500
82-0206	Cassava Processing (Colombia)	AFNS	216600
			786300

1983

83-0033	Economic Crisis and Urban Survival Strategies (Central America)	SS	53600
83-0065	Women's Participation in the Informal Sector (Chile)	SS	37100
83-0200	Mariculture (Chile)	AFNS	402500
83-0209	Andean Crop Processing (Peru)	AFNS	51100
83-0210	Rural Fruit Processing (Colombia)	AFNS	80300
83-0284	Process Improvement Bakeries (Chile)	AFNS	166900
83-1016	Industrial Productivity (Jamaica)	ENR	119914
			911414

1984

84-0081	Banana Processing (Honduras)	AFNS	97100
84-0122	Coffee Processing (Guatemala)	AFNS	174340
84-0142	Caribbean Technological Consultancy	IS	674628

	Services Network - CTCS (Barbados)		
84-0212	Shellfish Products (Chile)	AFNS	90730
84-0276	Microcomputer Software for Research on Artisanal Fisheries (Chile)	SS	46475
84-0327	Urban Self-Employed Workers (Bolivia)	SS	135000
84-1030	Fly-Ash Concrete (Argentina)	ENR	226905
84-1032	Activated Carbon (Colombia)	ENR	298700
84-1034	Foundry Technology (Argentina)	ENR	232250
			1976128
1985			
85-0047	Informal Sector Enterprise (Peru)	SS	307000
85-0207	Dairy Systems Improvement (Ecuador)	AFNS	29700
85-0225	Artisanal Fisheries (Ecuador)	SS	91490
85-0309	Women and Street Foods (Jamaica)	SS	74620
85-0310	Informal Sector Enterprises in the Apparel Industry (Uruguay)	SS	68340
85-1019	Aluminum Alloys Foundry (Venezuela)	ENR	299050
85-1034	Pozzolan Cement (Guatemala)	ENR	237950
85-1035	Copper base Alloys (Peru)	ENR	320484
			1428634
1986			
86-0061	Handicrafts (Bolivia)	SS	20500
86-0100	Rural Food Processing (Colombia)	AFNS	145500
86-0116	Fisheries Development (Chile)	AFNS	329300
86-0207	Informal Sector Enterprises with Export Potential (Costa Rica)	SS	92200
86-1037	Turpentine Derivatives (Honduras)	ENR	332150
86-1038	Ceramic Whiteware (Ecuador)	ENR	380700
			1300350
1987			
87-0008	Adjustment and Technological Change in Metalworking Industry (Nicaragua)	SS	78090
87-0149	Mariculture systems (Chile)	AFNS	404400
87-0287	Micro and Small Enterprise Sector (Costa Rica)	SS	74300

87-0328	Artisanal Fisheries Development (Colombia)	AFNS	30000
87-1005	Asphalt Roofing Sheets (Costa Rica)	ENR	345658
87-1021	Carmine Production from Cochineal (Peru)	ENR	252370
87-1032	Ductile Iron Foundry (Peru)	ENR	249700
87-1033	Volcanic Ash Cement (Bolivia)	ENR	300000
87-1036	Pine Tannins as Anticorrosives (Chile)	ENR	107600
			1842118
1988			
88-0023	Andean Food Processing (Peru)	AFNS	297600
88-0055	Agroindustry Studies	AFNS	41400
88-0056	Fish Processing Enterprises (Chile)	AFNS	179900
88-0119	Fisheries Technology Transfer in Latin America	AFNS	237842
88-0153	Labour Market Participation (Paraguay)	SS	77230
88-0163	Small Associative Businesses (Peru)	SS	23800
88-0236	Artisanal Fisheries (Colombia)	AFNS	502300
88-0254	Cassava Technology (Paraguay)	AFNS	228800
88-1021	Latin American Foundry R&D Network	IS	395625
88-1038	Industrial Information and Communication CARIRI (Trinidad & Tobago)	IS	221420
88-1047	Latin American Chemical Technology Network (Brazil & Canada)	IS	453100
88-1062	Tara Processing (Peru)	ENR	236900
			2895917
1989			
89-0003	Bakery Improvements Dissemination (Chile)	COMM	30122
89-0016	Cassava Processing (Colombia)	AFNS	235395
89-0057	Rural Enterprises	AFNS	339300
89-0078	Information Service on Innovation (Uruguay)	IS	243630
89-0097	Information Service for Industry - ACOPI (Colombia)	IS	156680
89-0119	Rural Food Processing (Colombia)	AFNS	375400

89-0139	Tree Crop Processing (Peru)	AFNS	199100
89-0140	Fisheries Training Seminar (Regional)	AFNS	111944
89-0141	Fisheries Development (Chile)	AFNS	160320
89-0155	Documentation and Information Centre for SME Industries - CEDOIN (Ecuador)	IS	219600
89-0322	Structural Adjustment and the Manufacturing Sector (Guyana)	SS	39800
89-1043	Foundry Sand (Bolivia, Colombia, Ecuador)	EES	239000
			2350291

1990

90-0019	Decentralization of Industrial Information Services - ITINTEC/PROIND (Peru)	IS	271075
90-0065	Small Business Credit Evaluation (Peru)	SS	28140
90-0066	Management and Organization Informal Sector Enterprises (Peru)	SS	48670
90-0112	Agroindustry Networks	AFNS	238563
90-0129	Privatization of the Sea and Artisanal Fishing (Peru/Chile)	SS	88590
90-0154	Gender in Urban Informal Sector (Honduras)	SS	110860
90-0163	Leather Industry (Uruguay)	ENR	264400
90-0166	Fisheries Review (Uruguay)	AFNS	37000
90-0168	Integrated Coastal Development Network (Brazil, Colombia, Chile)	AFNS	240000
90-0169	Fisheries Communications (Chile)	AFNS	48000
90-0215	Solar Timber Dryer (Brazil)	AFNS	135000
90-0240	Small-scale Industries in the Azuay Region	SS	35000
90-0244	NGOs in Agricultural Research	AFNS	73700
90-0273	Macro Policy and the Popular Classes (Ecuador)	SS	45500
90-0289	Entrepreneurial Decentralization	SS	40370
90-1036	Fruit Processing Industry - RPC/CARIRI (Colombia)	ENR	194600
			1899468

1991

91-0038	Refractory Gold (Colombia)	ENR	279900
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91-0113	Agroindustry Network (Colombia)	AFNS	91887
91-0140	Fish Processing Enterprises (Chile)	AFNS	342840
91-0213	Fisheries Production Systems (Chile)	AFNS	163050
91-0236	Cassava Processing (Colombia)	AFNS	245710
91-0245	Alternatives for Solid Waste Management (Dominican Republic)	SS	137630
91-0254	Fisheries Management (Peru)	AFNS	120900
91-1010	Essential Oils (Bolivia)	ENR	395000
91-1030	Pascal Was (Honduras)	EES	143552

1920469**1992**

92-0007	Community Planning Of Extractive Reserves (Brazil)	ENR	121570
92-0025	Agroindustry Network	ENR	517545
92-8757	Education and Small Industry in Ecuador	LARO/SS	319300
92-8760	Chemical Technology Transfer	LARO	145000
92-8764	Entrepreneurial Innovation in Biotechnology (Uruguay)	LACRO	248000

1351415**1993**

93-0407	Environmental Incentives (Mexico)	SS	94405
93-0806	Technological Unit for the Development of SME Industries (Guatemala)	CAI	265095
93-8753	Information on Environmentally Sound Technologies for Andean SMEs	LARO	353000
93-8760	Industrial Support Unit (Costa Rica)	LACRO	242910

955410

1994

94-0002	Resource Management by Fishing Communities (Brazil)	ENR	135210
94-0402	Competitiveness and Environmental Performance of SMEs (Colombia, Costa Rica, Ecuador)	SS	347880
94-1202	Industrial Support Network Central America CAI		394000
			877090

Middle East**1979**

79-0025	Small Enterprises (Turkey)	SS	73600
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1981

81-0055	Small Scale Industries (Pakistan)	SS	72700
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1983

83-0056	Squatter Produce Market Vendors (Egypt)	SS	80000
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1985

85-0337	Small Urban Industries (Morocco)	SS	13100
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1986

86-0081	Occupational Health Profiles (Egypt)	HS	126380
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1987

87-0229	Faba Beans Processing (Egypt)	AFNS	41300
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1988

88-0316	Foundry Capacity Utilization (Turkey)	EES	196000
88-1045	Shale Brick Production (Egypt)	EES	387700
88-1058	Cast Iron Production From Sponge Iron (Egypt)	EES	239500
			823200

1990

90-0001	Foundry Sands (Jordan)	EES	135800
90-1001	Aromatic Plants (Morocco)	ENR	219600
90-1005	Recycled Polyethylene Waste Film Application (Egypt)	ENR	231700
90-1031	Multilayer Polyethylene Film (Jordan)	ENR	314000
			901100

1992

92-0808	Sponge/Cast Iron Technology Transfer (Egypt)	MERO	245000
92-8602	Date Palm Mid-Rib Utilization	CAI/MERO	243343
			488343

1994

94-0802	Survey of Cottage Industry in Tunisia	CAI	179380
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