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**MICROENTERPRISES AND RURAL
DEVELOPMENT IN MEXICO**

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INTRODUCTION

The present report is the result of UNIDO's participation in an International Fund for Agricultural Development (IFAD) programming mission to Mexico to determine the main elements of a medium-term investment programme in the field of rural development. The field mission took place during the period 18 May to 6 June 1992 and an earlier version of this report (3 July 1992) was presented to IFAD as an input into the full report of the programming mission. The main aim of the analysis which follows is to provide an overview of the current situation of microenterprise development in Mexico including a number of key areas such as off-farm income generation potential with particular emphasis on agroindustry, identifying linkages and the potential roles these could play in alleviating poverty in rural areas with a high proportion of marginal producers.

This report does not attempt to analyse questions such as the magnitude, root causes and strategies for the eradication of poverty, which were dealt with by other team members¹. Suffice it to say that although poverty may be reduced by the provision of social services, it can only be overcome by the implementation of policies that generate sustainable employment and income. These should be backed up by policy-oriented research in the target zones related to the role of the informal sector and its relationship with the formal sector in areas such as microenterprise development and productivity, micro-credit, subcontracting and market access in the agriculture, services and manufacturing sectors.

Chapter I analyses the characteristics of the microenterprise sector in Mexico and is followed by an overview of the programmes in support of microenterprise development in Chapter II. An analysis of rural microenterprise development is contained in Chapter III incorporating observations that emanate from the field work undertaken in the State of Yucatan during the mission. Chapter IV concentrates on other issues of importance in fostering the development of microenterprises in rural areas including decentralization, regional development, the impact of NAFTA and the role of women, and is followed by the conclusions and recommendations in Chapter V.

¹ The mission was composed of the following members: Alain de Janvry (Mission leader, University of California at Berkeley), Elizabeth Sadoulet (University of California at Berkeley), Fernando Rello (FAO), Stefano Varese (University of California at Davis), Rodolfo Irigoyen, Joaquin Secco, Alberto Hintermeister (CIESU, Uruguay), Theodore van der Pluijm (IFAD), Gary Howe (IFAD), Anibal Monares (IFAD), Manuel Chiriboga (IICA), Humberto Colmenares (IICA), Peter Versteeg (UNIDO), Bettina Caas (UNFPA), Margarita Velasquez (UNFPA), David Myhre (Cornell University), and Raul Garcia (CIDE).

I. CHARACTERISTICS OF THE MICROENTERPRISE SECTOR IN MEXICO

According to both Nacional Financiera (NAFIN) and the Secretaría de Comercio y Fomento Industrial (SECOFI), the definition of a microenterprise is one which directly employs up to 15 persons and has gross annual sales of up to 110 times the annual minimum wage (530 million pesos or some US \$175,000²). Small-scale industry is categorised as that which directly employs between 16 and 100 persons, whilst medium-scale industry directly employs between 101 and 250 persons.

In 1990/1991 the manufacturing sector in Mexico accounted for some 23 per cent of GDP and 11 per cent of total employment whereas agriculture accounted for approximately 8 per cent of GDP and some 27 per cent of employment. Almost 80 per cent of manufacturing employment is concentrated in the following four branches: food, beverages and tobacco; metallic products, machinery and equipment; textiles, apparel and leather; and chemicals, petroleum derivatives, rubber and plastic (NAFIN 1991).

In terms of the number of establishments in the manufacturing sector, microenterprises accounted for between 76 and 78.5 per cent of the total for the period 1985 to 1990 (see Table 1). However, the share of microenterprises in manufacturing sector employment and income for the period is 11.3 and 7.2 per cent respectively (see Tables 5 and 2). It should be noted that these figures understate the actual situation due to the fact that the data concern the formal sector only, and indeed census information places their share of establishments at closer to 90 per cent and their share of employment at 18 per cent. The principal branches of activity are food products (22.4 per cent), metallic products excluding machinery (17.9 per cent), clothing (10.2 per cent) and printing (7.9 per cent) (see Table 4).

The geographical distribution of manufacturing establishments including microenterprises can be seen in Table 3. More than 50 per cent of microenterprise establishments are located in seven States (Federal District, Puebla, State of Mexico, Jalisco, Veracruz, Michoacan and Guanajuato), roughly in line with their shares of population and GDP.

In the Federal District, some 75 per cent of microenterprises employ five or fewer persons, 80 per cent have a single proprietor, and 93 per cent indicated that they were completely domestic market oriented with the great majority of these not even venturing beyond their local markets. They basically compete with other microenterprises in a highly segmented market, operating in almost two thirds of cases on a strictly cash basis (Carvajal et al, 1990).

The microenterprises located near the Mexico-USA border have a stronger export market orientation and in fact some 50 per cent of them are indirectly producing to supply the foreign market (Reynolds and Pessoa, 1991). Their organisational structures differ from

² These figures are calculated at the existing exchange rate in mid-1992 of 3,060 pesos to the \$US. It should be noted that as of 1 January 1994 three zeros were eliminated from the peso such that one \$US is currently equivalent to 3.1 new Mexican pesos.

microenterprises catering to the local market and in many cases their credit constraints are solved in part directly by the maquiladora industry for which they produce. Nonetheless, these links, which also include subcontracting arrangements, are often informal or non-institutionalised and dependent on the export capacity of the larger firms.

The main constraints faced by microenterprises can be split into three groups: financing; commercialisation; and technical assistance. (A more detailed list of difficulties faced by microenterprises is contained in Chapter II under the SECOFI programme.)

Credit: In Mexico, microenterprises have limited access to institutionalised credit and in the cases where credit is obtained, it is not unusual for above-market interest rates to be paid. In the informal sector, credit schemes exist which offer short-term loans with high interest rates that can reach as much as 15 per cent per month. Invariably banks only work with the formal sector and demand guarantees. Often the administrative and time costs of generating the credit render the exercise uneconomic given the size of the credit requested. Microentrepreneurs are aware of the need to raise the level of their operations beyond that which can be financed by retained earnings and family savings and in general have no objection to paying competitive rates for credit and technical assistance since the cost would be outweighed by the gains in productivity. Credit constraints in fact lie not in the level of the interest rate *per se*, but in the lack of access to funds needed for growth and development.

Commercialisation: This is the area which causes the greatest problems for microenterprises and as such should be the point of departure for any integrated support programme. Generally microenterprises do not have access to large and lucrative markets because of a variety of problems including location, scale and lack of diversity of production, inadequate packaging, distribution problems and lack of information, among others. Recent changes both in agriculture and other sectors are now opening up new forms of commercialisation through the formation of joint ventures. These provide greater market access to the smaller producer and at the same time expose them to the realities of business management and technology and oblige them to adopt certain quality standards.

Technical assistance: The provision of technical assistance services including training in conjunction with financial services is acknowledged by both lending institutions and recipients as being of key importance. In general the provision of market information, technical advice and other support and assistance in the establishment and maintenance of an enterprise has also been biased in favour of medium or large enterprises located in metropolitan areas rather than small and microenterprises in rural districts.

As indicated above, the official statistics and the types of assistance generally made available to microenterprises only concern the formal sector. In Mexico the informal or underground economy has been estimated at somewhere between a quarter and a third of officially recorded GDP (Centro de Estudios Económicos del Sector Privado, 1986). A study undertaken by the National Chamber of Commerce (CANACO) found that the informal (or black) economy in Mexico City grew by 7 per cent in 1992 while the official sector grew by 3.3 per cent. This implies that a significant proportion of microenterprises goes unrecorded and these enterprises do not have access to the numerous services provided under the programmes outlined in Chapter II.

II. PROGRAMMES IN SUPPORT OF MICROENTERPRISE DEVELOPMENT IN MEXICO

Traditionally, medium, small and microenterprise (MSM) development programmes in the manufacturing sector have not received high priority, due to the public sector-oriented import substitution industrialisation model which prevailed in Mexico until the mid-1980s. This model led to the relegation of MSM manufacturers to the traditional consumer goods branches of industry such as food processing, footwear and clothing, furniture and certain segments of metalworking. Until recently links were not encouraged between different sized enterprises, and in particular with those in the more dynamic branches of industry which received generous government support for high-technology investments. From the late 1970s onwards increasing attention has been given to small-scale industry development programmes. However, until the passing of the Federal Law for the Development of Microindustry in 1988 and its successor in July 1991, which also specifically covers handicraft activities, microenterprises had only participated marginally in these programmes (Máttar, 1992). The majority of the programmes tend to aggregate the analysis of the problems faced and the support mechanisms for the micro, small- and medium-scale categories with the result that the data provided, both on the nature of the constraints and the scale of assistance provided, disguise the real situation of microenterprises. Nevertheless, a variety of programmes exist and these will be briefly outlined below, stressing the aspects of greatest relevance to microenterprise development.

1. The Ministry of Commerce and Industrial Development (SECOFI)

Within the framework of the National Programme for the Modernisation of Industry and Foreign Trade (1990-1994), SECOFI has developed a special Programme for the Modernisation and Development of the Micro, Small and Medium-Sized Industry (1991-1994). This programme identifies the difficulties faced by this segment of industry as:

- (a) The exclusion of the smallest enterprises from institutional support;
- (b) The inability to obtain access to credit because of the lack of guarantees and the fact that the magnitude of the amounts involved is often unattractive to the first-tier banking sector;
- (c) Excessive regulation;
- (d) The tendency for entrepreneurs to operate alone and their lack of interest in joint activities;
- (e) Limited bargaining power resulting in reduced scale of operation and low levels of organisation and management;
- (f) Lack of technological know-how and resistance to its incorporation;
- (g) Frequently obsolete machinery and equipment;

- (h) The tendency to improvise;
- (i) Restricted market exposure, in particular to export markets;
- (j) Working conditions with limited security and hygiene;
- (k) Lack of qualified personnel and minimum participation in training programmes;
- (l) Poor inventory management complicated by small-scale purchases; and
- (m) Lack of appropriate quality standards.

The specific objectives of the programme are:

1. To promote the growth of this segment in both domestic and foreign markets through improved forms of purchasing, production and commercialisation;
2. To increase the levels of technology and quality;
3. To strengthen deregulation, decentralisation and administrative simplification measures;
4. To encourage their development in the regions through deconcentration taking into account environmental considerations;
5. To promote the creation of productive and permanent employment, based on the lower investment requirements per job created; and
6. To promote investment in social sector manufacturing activities.

The main strategic mechanisms that are to be promoted include: the formation of entrepreneurial groupings and associations in areas of credit, purchasing and commercialisation such as credit unions, limited liability companies and common purchasing centres as well as joint marketing, subcontracting and public procurement arrangements; the promotion of technological services through the creation of a national industrial technology consultation service involving a variety of institutions including LANFI (Laboratorios Nacionales de Fomento Industrial), CONACYT (Consejo Nacional de Ciencia y Tecnología) and other research and development (R&D) and educational institutions and centres; total quality control; business management and training; financing and investment promotion aimed in particular at enterprises which have not previously had access to resources through the development of financial intermediaries supported primarily by NAFIN and other programmes such as the National Solidarity Programme; and others aimed at agroindustry, deregulation and decentralisation. In the area of technological services, LANFI is able to provide services at 50 per cent discount to microenterprises and 25 per cent discount to small enterprises.

SECOFI has also set up two mixed commissions, one of which promotes exports (COMPEX) and the other (COMIN) for the modernisation of the MSM industry, which was established in late 1991. COMIN is basically a forum where entrepreneurs can present problems at a decentralised level to the members of the Commission, which is obliged to pass a judgement within 10 days. By mid-1992, of some 900 cases submitted, approximately 400 had been resolved. For microenterprises in particular, the Federal Law for the Development of Microindustry and Handicraft Activity (July 1991) foresees the establishment of a special Inter-secretarial Commission (Chapter V, Article 35). This law defines microindustry according to the NAFIN/SECOFI definition (see above) and makes special mention of handicrafts defining them as those activities involving manual individual, family or community production of cultural or folkloric goods with techniques handed down over generations. It proposes two main types of support: fiscal, financial, technical assistance and commercialisation support; and administrative simplification for the establishment of such enterprises. Under the law, the Intersectoral Commission is stipulated as the agent responsible for establishing guidelines for increasing productivity in handicrafts, ensuring supplies of raw materials, providing credit, stimulating direct commercialisation and appropriate forms of organisation. SECOFI's Programme of Support to Handicraft Activity (1991-1994) outlines in greater detail the guidelines and instruments available in the context of an analysis of the problems faced by handicraft producers. These cover: the subsistence, rudimentary and geographically dispersed nature of production, which is predominantly in the hands of fringe groups, including in particular ethnic groups; the lack of credit, training, quality, design, research, organisation of raw materials and commercialisation; excessive intermediarisation; and the substitution of handicrafts by industrialised products. One of the main aims of the programme is to encourage the organisation of joint raw material purchasing, commercialisation, credit, technical assistance and training for handicraft producers. A number of institutions including Bancomext and the National Solidarity Programme, among others, are involved in these activities.

In the area of industrial training for micro and small enterprises a joint programme, CIMO (Capacitación Industrial de Mano de Obra), is being implemented using 70 per cent World Bank finance and a 30 per cent contribution by industrial chambers, associations and enterprises.

2. Nacional Financiera (NAFIN)

In 1990, NAFIN, the most active institution in granting preferential credits to micro and small enterprises, instituted its Programme for Micro and Small Enterprise (PROMYP), which channels specialised credits to these establishments through the commercial banking system and other financial intermediaries such as credit unions. Within this programme, there exists a specialised support facility for microenterprises that have not previously had access to bank credit, which specifically provides financial and technical assistance to family workshops, informal producer groups and cooperatives engaged in manufacturing activities. The credit available covers working capital, machinery, equipment and plant and is backed 100 per cent by NAFIN up to a maximum of 480 million pesos. These credits are disbursed through trust fund agreements operated by the State (i.e., regional) Development Funds, which channel the funds through first-tier financial intermediaries including commercial banks and credit unions. The average credit size is around 30 million pesos.

Since 1989/1990 NAFIN has undergone a radical restructuring, which has reoriented its activities to solely second-tier development banking activities aimed principally at private and social sector manufacturing, commerce and service activities, whereas formerly its main clients were the parastatals. Its credit programmes have been reduced in number from 44 to 6 with PROMYP taking prime importance as a tool for allocating almost 60 per cent of NAFIN credit in 1991. In addition its activities have become increasingly decentralised with the opening of 8 regional offices and 36 state representations in 1990 and the share of credit received by the regional areas has increased from 62 per cent of total credit granted in 1989 to 73 per cent in 1990 and reached 78 per cent in 1991. Its network of associated financial intermediaries also increased from 125 in 1990 to 261 in 1991, comprising 23 banks, 127 credit unions, 48 development entities and 69 factoring and leasing forms. Through PROMYP, NAFIN directed credit to more than 52,000 micro and small enterprises (97 per cent of recipient enterprises), including some 13,000 enterprises which utilised the enterprise credit card programme (tarjeta empresarial), which expedites revolving credit for working capital and modernisation. This programme allows firms to draw credit up to a specified amount without going through individual loan procedures, thereby lowering transactions costs. In total, 14.5 billion pesos of credit were granted to the private sector in 1991, representing a fourfold increase on 1990 and some 98 per cent of all credit operations, the bulk of which were channelled through the commercial banking system. The manufacturing sector received 47 per cent of these resources, followed by commerce (33 per cent) and services (20 per cent). Of the more than 54,000 enterprises which benefited, 52 per cent were microenterprises and within this group 74 per cent employed five or fewer persons, 19 per cent six to ten persons, and 7 per cent eleven to fifteen.

NAFIN has thus in a very short space of time expanded its credit activities substantially to include commerce and services in addition to manufacturing, and reoriented its focus to give priority to micro and small enterprises, which were neglected by official lines of credit in the past. These credits are increasingly being channelled through regional public, private and social funds and credit unions, which have greater local knowledge and play an important role in broadening access to financial and technical services.

3. The National Solidarity Programme (PRONASOL)

PRONASOL is a broad programme designed to assist the most underprivileged groups and is essentially a system of matching grants, whereby the state agrees to provide resources for projects which groups of poor people propose and carry out themselves. It covers a broad range of areas including health, education, agricultural production and food distribution, infrastructure (water, electricity, transportation), urbanisation, women's issues, regional development, support to indigenous groups, and support to the productive sectors, which includes the private sector and micro and small enterprise development. The aim of the programme is to allocate scarce resources so that they stimulate and reward local initiative, based on the premise that projects identified and run by local communities will be better supported and more efficient. The Solidarity funds are provided at zero interest rates, though are often complemented by local financing obtained at market rates. PRONASOL is working with some 30 funds nationwide, of which it has operational programmes with

seven.³ In four years of operation the Solidarity programme is reported to have created some 2,400 small businesses as well as providing around 10 million people with electricity, 8 million with drainage and half a million school scholarships.⁴ PRONASOL is also financing 500 grants for the carrying out of the mandatory social service in microenterprises and this is managed by SECOFI.

In the area of microenterprise development, the Solidarity programme set up in December 1991 the National Fund for Support to Solidarity Enterprises (FONAES). The basic aim of this fund is to support the development of microenterprises in manufacturing, services and tourism in depressed rural and urban areas, with emphasis being placed not only on financial viability, but also on organising groups of producers in ways that would benefit local communities. The objectives also include employment preservation and the promotion of credit worthiness through the creation of organisations of microentrepreneurs capable of financing and managing their own investment projects. FONAES does not require financial guarantees, as does the commercial banking system, and in some cases it may provide the guarantee in order that a producer or group of producers obtain access to commercial credit. FONAES basically operates through the established development banking system (mainly NAFIN) and regional funds, relying on the technical and financial monitoring capacity of the intermediaries at the rural level. These funds range in size from 230 million pesos to 10,000 million and in the case of the smaller funds, difficulties have arisen in covering operating costs which are charged to the 6 per cent spread on interest rates charged by NAFIN (CPP) and the rate charged by the fund. FONAES is also entering into the provision of venture capital.

4. The Inter-American Development Bank (IDB)

Through its Programme for the Financing of Small Projects, the IDB finances small private sector projects by providing soft loans through non-profit intermediary institutions such as cooperatives, foundations and producer associations. These institutions, in turn, channel the loans to low-income entrepreneurs who do not have access to conventional sources of credit. In addition to credit, the beneficiaries (typically handicraft producers, beekeepers and operators of sewing cooperatives and small farms in rural areas, and automobile repair and metalworking shops, laundries, tailors and cabinet makers in urban areas) receive assistance in planning and improving their production and marketing their products. At the global level some 55 per cent of finance has gone to agriculture, 32 per cent to urban microenterprises and 13 per cent to other projects including handicrafts and industrial activities.

Credits are usually of the maximum amount of US\$500,000 disbursed and repaid in local currency and are subject to favourable interest rates (between 2 and 5 per cent) and repayment periods of up to 20 or 25 years. There is no local contribution required. The IDB, however, requires that individual beneficiaries pay rates in line with market conditions, i.e., positive real rates of interest, since its experience has demonstrated that microenterprise

³ These figure. date back to mid-1992.

⁴ The Financial Times, 26 March 1993.

credit programmes which offer subsidised credit have a lower success rate. This is due to the fact that by not covering their own costs, technical services and risks, their very survival is put in danger and by charging lower than market interest rates, excess demand is created which can overload their capacity to process loans. One of the fundamental aims of the programme is the strengthening of the intermediaries which execute the projects. The programme effectively constitutes a subsidy to the development of such intermediaries which can include private foundations, cooperatives, official banks, semi-autonomous government organisations and other NGOs.

The IDB's experience in operating this programme since 1978 indicates that programmes concentrating on the widest possible coverage, the so-called "minimalist" programmes (see Boomgard et al, 1992), can achieve results as good as programmes which focus more on training or technical assistance. The main lesson which it has drawn is that microenterprise credit programmes should be managed as a business and should be separated from philanthropic activities. Without doubt it is an area of significant growth with annual levels of financing having jumped from below US\$10 million throughout the 1980s to some \$70 million in 1991. The IDB estimates that under its Small Projects Financing Programme some 35 per cent of the individual recipients have been women. In Mexico, a number of organisations including regional funds, private foundations, cooperatives and other entities such as DIFs have participated in the programme, two of which are outlined in greater detail below. In 1991, Mexico received some US\$2.5 million through five projects and the major bottleneck identified by the IDB is the limited available capacity of NGOs to manage this type of credit, which reinforces the main goal of the programme.

5. Asesoría Dinámica a Microempresas (ADMIC Nacional)

ADMIC is the largest non-government institution in Mexico that provides direct assistance to microenterprises. It is a private, non-profit organisation based in Monterrey, covering eight states (in the centre and north), which from 1980 to mid-1991 provided credit to some 7,300 microenterprises, the bulk of which in the latter three and a half years. ADMIC's main source of credit is NAFIN, with which it has established a trust fund of some US\$6.7 million. It has been able to onlend by a factor of ten and covers its operating costs by receiving a part of the spread on the interest rates paid and charged (two points in the case of NAFIN). It has also received an IDB credit of US\$500,000 under the IDB small loans programme (see above). ADMIC's loans tend to start below US\$500 and in addition to credit, it also provides technical assistance and training.

6. Fundación Mexicana para el Desarrollo Rural (FMDR)

This foundation is essentially a federation or network of autonomous foundations or centres which operate in a decentralised manner in the field of rural development. FMDR aims to promote the creation of such centres through the provision of services, the collection, organisation and dissemination of information, and facilitating access to institutionalised credit (NAFIN, FIRA, IDB). Among the services provided are: education and training including special technical and management courses for producers of grains, fruit, flowers, livestock and dairy products as well as a diploma course in rural development, which is designed to meet requirements identified by its very programmes; two types of project development: (a) bankable projects; and (b) projects for producers who do not have access

to the commercial banking sector, because of the small size of the credit required or the informal nature of production. In the latter case, no formalisation conditions are stipulated. Some projects, which are of community benefit are financed by grants (fondo perdido), as are the studies undertaken to assess the viability of projects. FMDR is presently implementing programmes of partial charges but increasing over time to 100 per cent for the technical assistance services provided. An indicator of the success of the foundation in promoting rural development is the fact that, through its own experience with IDB small projects finance, it has assisted in introducing affiliated centres at the regional level to similar programmes. A key element which has contributed to the success of the non-bank projects is the continuous participation of both the institutional and community promoters in project implementation, with technical assistance project visits occurring on a weekly basis. Each centre has a high degree of autonomy and a high per centage of its funding is local in origin. The main bottleneck encountered is the area of commercialisation.

III. RURAL MICROENTERPRISE DEVELOPMENT: CHARACTERISTICS AND FIELD OBSERVATIONS

1. Characteristics

The dominant characteristics of rural micro and small-scale enterprises include their small size, their private (or family) ownership, providing a source of supplementary income to agriculture, and their dynamic response to agricultural and rural development. New entrepreneurs originate mainly from the farming community, obtain on-the-job training, obtain capital from personal (or family) savings and prove responsive to technology changes arising from rural electrification and other infrastructure and improvements in farming methods. New entrants include traders and artisans, but also professionals and civil servants. There is evidence that the role of women in ownership and employment is more important than in urban industry and in general for about half the women in rural areas it provides a supplementary source of income to farming.

Employment in the sector expands predominantly through an increase in the number of microenterprises employing no more than 2 or 3 persons, rather than through any increase in the size of establishments, reflecting a low rate of "graduation" to larger-scale enterprises. This confirms the self-employment nature of the sector and as expected the survival rate of these enterprises is often very low.

2. The State of Yucatan

In Yucatan, the manufacturing sector is predominantly made up of microenterprises (93 per cent of total establishments; see Table 6). One of the main entities operating in support of micro and small enterprise development is FOGAPY (Fondo de Garantía a la Pequeña Industria del Estado de Yucatán). It is financed mainly through NAFIN and provides credit, training and technical assistance services to agriculture, industry, services and commerce, catering to the segment of the market which has not had access to credit due to the small loan requirements. It offers two types of credit up to a maximum amount of 54 million pesos, one for guarantees and working capital and the other for fixed investment in plant and machinery (excluding land), for which market interest rates are charged (CPP+6 per cent). The average credit requested is around 20 million pesos. A one-to-one guarantee is currently stipulated, since earlier experience without guarantees resulted in substantial arrears problems. FOGAPY has recently benefited from a significant increase in resources from FONAES. In 1991, it granted 54 credits to 36 enterprises and also provided technical assistance and training services.

A number of areas have microenterprise development potential in Yucatan. These include handicrafts (such as traditional clothing), ceramics, building materials, beekeeping, horticulture and citrus fruit production and processing, and the service sector. For handicrafts, one of the main problems is the lack of finance for raw materials and this is compounded by quality and commercialisation difficulties. The experience of the enterprise MayaBella headquartered in Merida in utilising community handicraft skills to produce a variety of hand-painted decorative accessories and accent furniture with designs tailored to the international market has led to the creation of employment of one thousand persons in

Yucatan. In the case of fruits and vegetables, local commercialisation is a problem due the small quantities produced by individual producers and the lack adequate means of distribution and infrastructure such as cool storage facilities. Market opportunities do exist in centres such as Merida and Cancun, but the costs and risks involved can easily render the marketing of small quantities uneconomic. The sale of labour in the services sector and in particular in construction is generally perceived as more economic. Whether this is really the case is not clear if one considers that the transport and living costs and working conditions of 12 hours per day, six days a week in the construction industry in Cancun are adequately compensated for by wages of 400,000 pesos a fortnight. In the municipality of Sotuta, in the corn producing region, surveys reveal that 87 per cent of the producers resorted to wage labour to complement family income and only 5 per cent of these found work in the locality (INI, 1992)

In Yucatan, some 700 persons in 25 Communities are estimated to be involved in beekeeping, an activity that stems from pre-Hispanic times. The honey produced is of sufficient quality for export to Europe and there exists room for export market expansion. There are also possibilities for improving collection, quality and organisation as well as stimulating backward linkages such as the manufacture of beehives, all of which would require technical assistance. It should be noted that FMDR has experienced technicians in beekeeping.

Despite the goals of community development of the PRONASOL-FONAES funds for microenterprise development, it would appear that in Yucatan they are directed to satisfying surplus demand generated by FOGAPY. Its resources are also being used in the poorest communities to allow small producers, some of whom were seriously affected by hurricane Gilbert, to purchase basic inputs. It would be preferable to establish a clear distinction between credit programmes for productive activities and programmes of the welfare payment type.

3. The State of Puebla

The successful development of family microenterprises involving services related to agricultural production in the "Plan Puebla" region was closely connected to the high level of confidence developed between the participants in the project and the local institutions which were the College of Postgraduates at Chapingo and CEICADAR, El Centro de Enseñanza, Investigación, y Capacitación para el Desarrollo Agrícola Regional. This was built up over a long period of time spanning some 22 years (see Flores, 1990).

The main aim of the project was to establish a number of microenterprises including small shops for agricultural supplies and products, cheese-making, nurseries, the manufacture and distribution of small implements, and artificial insemination. By the fourth year of operation some 21 enterprises had been established, which, with the exception of one, were all commercially viable. The average investment cost of creating a single job was calculated at between US\$7000 and \$9000 which is half the estimated cost of non-rural job creation.

The type of support infrastructure associated with successful microenterprise programmes includes not only provision and management of credit, but also a number of ancillary services such as research and financial and technical analysis together with technical

support in the set-up and management of microenterprises and the quality control and commercialisation of their produce. In general, such support infrastructure is not prevalent in rural areas. The experience gained in the Puebla project indicates that, in addition to the critical factors of an in-depth analysis of social, technical and economic factors, the above-mentioned institutional support infrastructure, and the efficient provision and management of credit, one should not underestimate the length of the learning curve in project implementation. This can be shortened to a certain extent by the willingness of innovators to share and diffuse their experience.

The experience of INCA Rural in fielding technical services to rural areas confirms that the lead time involved in selecting, settling in, gaining community acceptance and attaining results can be lengthy. However, once valuable experience has been gained, the demand for the services of such technicians becomes sought after, as confirmed by PRONASOL's interest.

IV. OTHER ISSUES OF IMPORTANCE IN FOSTERING THE DEVELOPMENT OF MICROENTERPRISES IN RURAL AREAS

1. Decentralisation and the role of government

Following the crisis of 1982, the Mexican economy underwent a period of severe adjustment and comprehensive reforms which have significantly reduced economic disequilibria in the past few years. The structural reforms that have been undertaken are based on a fundamental shift in the Government's development strategy, which aims to substantially increase the role of market forces and private incentives in the economy, while limiting that of the state to establishing the appropriate legislative and administrative framework for the private sector to create productive employment and wealth. At the same time this strategy takes into account the role of government in seeking better outcomes in areas where markets are insufficient (for example, through pollution control and provision of basic infrastructure, including education) and to alleviate extreme poverty and counter regional disparities.

More than 60 per cent of Mexican manufacturing production is generated in the metropolitan areas of Mexico City, Guadalajara and Monterrey. From 1985 to 1990, only 1 per cent of the 3000 firms included in the Federal District's relocation listing have actually managed to move. The high industrial concentration in these urban centres and border areas has caused serious pollution problems.⁵

World Bank data indicate that some 20 per cent of Mexicans (approximately 17 million people) are extremely poor: that is, they do not have enough income to meet minimum nutritional levels. Most of these people live in the countryside. The current attention being given to poverty alleviation under the Government's Solidarity programme represents a trend towards the reduction of such regional inequalities and in this regard the decentralised creation of employment opportunities in microenterprises is serving as a useful tool.

Decentralisation can provide an important stimulus to rural development. Both from the point of view of generating employment and income at the regional (i.e., state level) and from that of reducing congestion and environmental degradation in the largest urban concentrations, there is a need to provide incentives for industry to relocate and simultaneously upgrade its technology to increase competitiveness and minimise environmental degradation. Such a programme would require complementary investments in infrastructure and technological and market information networks such as subcontracting exchanges.

NAFIN has opened up numerous regional offices in the recent past and is embarking on a process of decentralisation, which is expected to redistribute some 20 per cent of its personnel to the regional offices.

⁵ See "The Mexican Programme for the Modernization of Industry and Foreign Trade 1990-1994", pp 16-17.

International technical assistance can also be provided in a more decentralised manner in order to reinforce the above trends. This process has in fact been initiated by the UNDP and the Mexican Ministry of Foreign Affairs through the publication of an invitation to regional governments, municipalities and NGOs to present proposals for technical assistance financing in the following areas of priority: poverty; water and environment; high technology (biotechnology, new materials, telecommunications and informatics) and; cooperation between developing countries (with particular emphasis on cooperation between Mexico and Central America).

2. The impact of the North American Free Trade Agreement (NAFTA) negotiations on small and microenterprise development

The NAFTA agreement, signed by Canada, Mexico and the USA in late 1992, is currently in the process of ratification. The agreement will provide preferential tariff treatment for goods which are considered to be North American based on specified rules of origin. Tariffs on virtually all goods classified as North American will either be eliminated at once or phased out over five, ten or fifteen years (for instance, duties on some textiles and apparel will be eliminated immediately, while duties on others will be phased out over 10 years). All services including financial services, transport and advertising together with government procurement will be completely liberalized. Investment from other NAFTA countries will be subject to conditions no less favourable than domestic investment, thereby outlawing "performance requirements" such as maintaining specific export levels, minimum domestic content or trade balancing.

A recent study has calculated that NAFTA will create 600,000 jobs in Mexico and 130,000 jobs in the USA (Hufbauer, 1992). The attraction of labour intensive industry, however, will most likely not have a direct impact on rural development and could even result in greater rural-urban migration thereby exacerbating the existing regional imbalances. Presently, some 25.7 per cent of the value of Mexican imports from the USA are exempted from tariffs, 32.5 per cent are subject to a 10 per cent tariff, 20 per cent of imports are subject to a 15 per cent tariff, and 20 per cent to a tariff of 20 per cent. In the case of USA imports from Mexico, some 75 per cent of their total value is subject to tariffs of less than 5 per cent (El Mercado de Valores, 1992).

For the greater part of micro and small-scale enterprises in the manufacturing sector, production is concentrated in consumer goods such as flour milling, tortillas, bread, carpentry, and blacksmithery, which are destined for the local market. The impact of NAFTA on these enterprises will be negligible. In other branches including food processing, textiles/apparel, leather and footwear, and certain segments of metalworking new opportunities will arise. However, only those enterprises which incorporate new technology, produce to certain quality standards, have access to finance, and possess marketing skills will benefit. Important concessions are likely to be made by the USA to Mexico in the elimination of import barriers that protect textiles and apparel.

The impact of NAFTA will be more significant in the agricultural sector since Mexico and the USA have a strong two-way trade relationship in this sector. Mexico is the second largest supplier of food to the USA and is the fourth largest agricultural export market for the USA. In 1989 Mexico exported to the USA US\$704 million worth of vegetables (some

36 per cent of total USA vegetable imports), \$226 million of fruit, \$464 million of coffee, \$151 million of malt beverages, and \$53 million of sugar. The USA exported significant amounts of sorghum grain (\$262 million), meat (\$250 million), dairy products (\$228 million), seeds (\$117 million), live cattle (\$112 million), and animal fats (\$106 million) to Mexico in the same year (Gilbreath Rich and Hilburt, 1992). The reduction in agricultural trade barriers could result in the productive infrastructure for several key agricultural commodities relocating to Mexico in search of labour cost advantages. This is particularly the case for fresh fruits and vegetables. By the same token a substantial proportion of Mexican grain production and in particular traditional smallholder cash crop production will be rendered uncompetitive. It has been estimated that NAFTA would result in the lowering of the price of corn and beans, the traditional peasant crops, by around 40 per cent and the increasing of the prices of fruits and vegetables for export (IFAD, 1992). Such an effect raises the need to diversify production. A shift towards the production of fruits and vegetables implies greater demand for credit, management, commercialisation, post-harvest, new technology and extension services. In addition these new production opportunities are highly diverse and shifting and thus require flexibility of support services. The encouragement of this transition and the experience gained therein are likely to have beneficial effect on the development of a broad range of more skill-intensive services which will open up new employment opportunities.

3. The role of women

The role played by women in rural development is crucial, but tends to be under-reported. Women, in fact, are responsible for a large part of agricultural output, and are strongly represented in many rural micro-enterprises. Policies and measures which do not take into account the specific role, problems and potential of this category of producers are only partly effective in stimulating rural microenterprise growth. Such policies should therefore also focus on special issues regarding women's involvement in the rural economy, such as:

- Reducing household burdens (e.g. by improving local water supply) to increase the time available for remunerative activities;
- Improving access to general education and technical training;
- Improving access to credit;
- Removing inequalities in legal status.

While a special awareness of the problem of women's participation is essential, and while special measures are needed, the general approach should be one of "mainstreaming" women's activities rather than treating them as a separate group, as this tends to marginalize them.

In certain parts of Yucatan such as the eastern zone, some 50 to 60 per cent of women are involved in handicraft production. Those who are engaged in the commercialisation of their own produce through travelling to market centres are clearly better off than the groups of rural women who have little awareness of market conditions and are delivered raw materials and hand over their produce to intermediaries.

V. CONCLUSIONS AND RECOMMENDATIONS

An important issue which needs to be considered is whether the main promotional efforts should be directed towards microenterprises or to a larger segment of industry, including micro, small and medium-scale enterprises, taking into account that the nature of any assistance required in the two cases is likely to be quite different. For microenterprises an 'incrementalist' promotional approach can be pursued while for small enterprises a 'business development approach' is possible, with survival activities at the bottom end of the informal sector requiring a 'community development approach'. The Mexican Government has concentrated its efforts on the broader category. The Mexican definition of a micro-enterprise (up to 15 employees and gross annual sales of up to some US\$175,000) is much broader than that used in most countries and effectively includes small-scale enterprises. However, the bulk of microenterprises employ less than 10 persons and have sales of less than US\$20,000 and it is this group which offers the best potential for employment generation.

One of the main advantages of lending to microenterprises is that with minimal credits (as low as a few hundred dollars), production can be expanded significantly simultaneously creating employment opportunities. Experience indicates that programmes concentrating on the widest possible coverage can achieve results as good as programmes which focus more on training or technical assistance. It should be noted however that microenterprises follow normal business cycles and rural microenterprises are highly dependent on the agricultural sector, i.e., the crop-income cycle. A significant proportion (an estimated 30 to 40 per cent) of microenterprises will on average not survive beyond a ten-year period after the initiation of operations. Similarly, only a small per centage of microenterprises graduate to become small-scale and even fewer will attain the status of medium-size.

Given that manufacturing and services account for approximately 76 per cent of GDP (Bancomext, 1991), it is apparent that this is where the opportunities lie for absorbing surplus agricultural labour. If the full cost (including the environmental cost) of operating in urban concentrations were transferred to producers together with a realistic programme of decentralisation, this would lead to a growing demand for primary, intermediate and consumer goods as well as related services in the regions. With agricultural development, final demand linkages for consumer goods become far more important than forward production linkages of agricultural processing or backward production linkages of the manufacture of farm tools and equipment. By the same token, the development of rural infrastructure, both physical (transport, electrification) and social (education, health) is crucial for rural development. Social investments improve the quality of labour and skills and make rural areas attractive for non-farm occupations. The difficulty arises when one attempts to compare the returns to investment in social services to those from investment in the productive sector.

Parallels drawn with the Italian experience in the so-called "Third Italy" where the formation of subcontracting networks and consortia stimulated rapid small business development, should not be over-drawn in the case of Mexico, which does not have the same historical tradition of decentralised political administration and vigorous city-states. In Mexico, it is essential to lay the ground work for the development of a stronger local and

regional infrastructure of public and private institutions, capable of providing a support system for small business including the pooling of technological and market information, the provision of technical assistance, and access to credit.

The productive sector has been polarised into formal and informal activities. The banking sector, as comprehensive as it may be, only satisfies the requirements of a certain portion of the formal productive sector, with a natural tendency to larger sized credits and thus enterprises of a certain size and organisational and technological capacity. Its impact on the rural marginal producer is thus negligible, in particular in view of the fact that the informal sector is estimated to account for between 25 and 33 per cent of official GDP. Similarly, research activities (like the main Government programmes) tend to concentrate on highly aggregated industrial groupings such as micro, small and medium-sized enterprises, which represent 98 per cent of all manufacturing establishments, 49 per cent of manufacturing employment and 43 per cent of manufacturing value added (SECOFI, Programme for the Modernisation of Micro, Small and Medium Industry 1991-1994). Furthermore, analysis and surveys are often focused on urban areas which have the highest concentrations of such groupings including in particular the Federal District, Guadalajara and Monterrey. There are important spin-offs which could be gained for rural development analysis in adapting and promoting the decentralised and disaggregated application of methodologies currently being utilised by renowned institutions (see Ruiz and Zubiran) to the regions and in particular those with more than 50 per cent of the population living in marginal areas. There is a need for much more disaggregated analysis in order to better identify the conditions faced by and requirements of those segments of the microenterprise sector which can generate employment.

There is a high degree of complexity in inter-institutional relationships which are overseen by inter-secretarial commissions and other bodies. Similarly, there exists a multiplicity of financial relationships covering lines of credit from the IDB, NAFIN, FIRA, Banrural and commercial banks complemented by Solidarity funds and channelled through a variety of organizations at the regional level, each of which has specific requirements, formats and methodologies. Additionally, numerous agreements are entered into with institutions that provide specialised services such as training, technical assistance and research and development services. This type of structure can have negative repercussions in that it may reduce the awareness of complementarities and lead to overlapping or duplication of activities.

One of the main constraints encountered in expanding global credit programmes to microenterprises is the scarcity of appropriate financial intermediaries endowed with the necessary support infrastructure to ensure a satisfactory success rate. Detailed analysis of programmes run by ADMIC and FMDR, both of which have been supported by the IDB, should be undertaken in order to either extend their coverage or apply the techniques utilised and experience gained to other non-governmental organisations and financial intermediaries. It is important to design credit programmes which act as a catalyst for the development of selected intermediaries with the ability and potential for dialogue with community groups, NGOs and financing institutions.

In conclusion, it can be said that:

(a) The changes (both institutional and of financial magnitude) over the past two years in the system of support to microenterprises have been significant; nearly all development bank finance is now channelled to the private sector and some 60 per cent of this goes to micro, small- and medium-sized enterprises in manufacturing, commerce and services;

(b) Simultaneously there has been an increased decentralisation of the provision of credit and services to these enterprises, with NAFIN itself expanding its regional representation and also incorporating a growing number of regional financial intermediaries (the share of NAFIN credit directed to the regional areas has increased from 62 per cent of total credit granted in 1989 to 73 per cent in 1990 and 78 per cent in 1991); this is also being supported by a greater emphasis on the provision of infrastructure in the regions through the active participation of NGOs and local entities such as the Solidarity committees;

(c) The effect of the increased regional flows of finance on rural development and in particular poverty alleviation, however, has been limited; with the exception of a few smaller programmes (for example FONAES, FMDR), the approach is basically a top-down, "minimalist" approach which excludes the substantial informal sector;

(d) The scope for implementing subsectoral rural programmes should not be overestimated given the makeup of rural household income and the intersectoral linkages. However certain shifts in production can be predicted in the context of increasing liberalisation of trade with the USA (notably towards the production of fresh fruits and vegetables). Such diversification requires more in-depth analysis of the role microenterprises could potentially play including the degree of support they would need before consideration as the basis for specific subsectoral programmes;

(e) Given the wide disparity between and within regions in Mexico, great potential exists for engineering transfers of experience from one group to another; similarly, there is room for improvement in the application of research and development, in particular in agriculture, horticulture and agroindustry where ample possibilities for diversification exist;

(f) The question of technical assistance is of vital importance in achieving this transfer of knowledge and techniques e.g. the fact that FMDR has expertise in beekeeping and that there is a demand for this in Yucatan;

(g) Leaving aside the question of the adequacy of total credit, the main bottleneck that has been detected is the shortage of rural intermediary capacity in both the efficient management of credit and the provision of technical services; the action recommended is to replicate lending programmes which involve an incentive to the development of such capacity and couple this with greater decentralisation of credit and greater subsidiarity; the establishment of savings and loans associations and credit unions should be encouraged and the commercial banking system should involve these and other NGOs in local lending; the basic philosophy is to provide credit together with technological know-how through these institutions and complement this with improved social infrastructure, which will increase employment and income, which in turn will enable the upgrading of human resources.

A number of areas can be mentioned where UNIDO could play a role in the provision of technical assistance in connection with rural development programmes: These include: 1) agroindustry: UNIDO is currently implementing a project for the promotion of investment in agroindustry together with the Ministry of Agriculture (SARH) within which it is identifying potential users of agroindustrial microenterprise technologies, suitable for enterprises with 1 to 8 employees and requiring capital investments of between US\$100,000 and 1.5 million; 2) the analysis of regional industrial development potential including agroindustry, handicrafts and manufacturing, with a view to identifying national and international (including state-to-state) technical and economic cooperation potential and opportunities and providing policy advice; 3) the undertaking of feasibility studies and investment promotion programmes; 4) the establishment of micro and small-scale industry development programmes, including subcontracting; 5) the implementation of human resource development programmes, including gender development; and 6) the incorporation of environmentally-friendly technologies. These types of assistance would contribute primarily through the promotion of sustainable productive activities that would generate employment and income. It should be noted that there is a dichotomy between the encouragement of competitive export-oriented production under increasingly open market conditions and the promotion of microenterprises *per se*, because microenterprises (with the exception of those in border zones) generally do not engage in exporting. Nevertheless UNIDO can also play a key role in advising and supporting both central and regional government as well as NGOs in seeking better outcomes in areas where markets are insufficient such as in pollution control and provision of basic infrastructure including education and the alleviation of extreme poverty.

Finally, the extent of poverty in Mexico has been highlighted of recent. Some 20 per cent of Mexicans (approximately 17 million people) are estimated to earn insufficient income to meet minimum nutritional levels and most of these people live in the countryside (World Bank). In rural areas 28 per cent of the population is estimated to be in extreme poverty and this figure rises to 65 per cent for the rural indigenous population (IFAD). In a period of economic adjustment induced by fiscal reform including the removal of subsidies, trade liberalisation and agricultural reform, such as is in process in Mexico, there is a high risk that existing inequalities will be exacerbated. This calls for selective intervention to redress such imbalances focussing at a highly decentralised level targeting marginal groups on the one hand and on the other, ensuring that the appropriate infrastructure and policies are put in place to foster sustainable growth and employment creation at the regional or state level. This requires a comprehensive regional development and decentralisation strategy, the development of which could benefit from an analysis of the European Community experience in this domain, a subject that lies beyond the scope of the present report.

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ANNEX I. Statistical Tables

**Table 1. The Mexican Manufacturing Industry,
by type of Enterprise, 1985-1990**

	1985	1986	1987	1988	1989	1990
Micro	64,590	68,657	74,394	76,526	81,332	92,556
Micro/Total (%)	76.0	77.0	77.1	77.1	77.3	78.5
Small	15,856	16,093	17,296	17,668	18,281	19,685
Medium-	2,628	2,565	2,790	2,941	3,209	3,266
Subtotal	83,074	87,315	94,480	97,135	102,822	115,507
Large	1,828	1,763	2,010	2,104	2,279	2,386
TOTAL	84,902	89,078	96,490	99,239	105,101	117,893

Source: SECOFI.

Table 2. Mexican Employment, by type of Enterprise, 1985-1990

	1985	1986	1987	1988	1989	1990
Micro	270,731	286,215	308,483	317,157	338,304	384,465
Annual growth (%)		5.7	7.8	2.8	6.7	13.6
Small	597,376	602,034	645,466	664,556	690,927	737,230
Medium	408,126	401,582	439,456	458,683	500,866	512,280
Subtotal	1,276,233	1,289,837	1,393,413	1,440,399	1,530,104	1,633,989
Large	1,235,257	1,191,203	1,360,048	1,452,801	1,575,515	1,635,629
TOTAL	2,511,490	2,481,040	2,753,461	2,893,200	3,105,619	3,269,618

Source: SECOFI.

Table 3. Types of Manufacturing Establishments,
by State, 1990

STATE	Micro	Small	Medium	Subtotal	Large	TOTAL
Aguascalientes	1,429	280	57	1,766	33	1,799
Baja California	2885	750	154	3,789	137	3,926
Baja Calif. Sur	436	51	12	499	0	499
Campeche	571	81	9	661	0	661
Coahuila	2,993	538	88	3,619	90	3,709
Colima	544	54	8	606	2	608
Chiapas	1,148	88	13	1,249	7	1,256
Chihuahua	2,854	488	100	3,442	186	3,628
Dist. Federal	18,124	4,995	694	23,813	422	24,235
Durango	1,296	331	75	1,702	43	1,745
Guanajuato	6,573	1,293	165	8,031	79	8,110
Guerrero	1,412	72	10	1,494	5	1,499
Hidalgo	1,341	285	48	1,674	34	1,708
Jalisco	10,642	2,220	248	13,110	144	13,254
Est. Mexico	7,545	2,523	584	10,652	441	11,093
Michoacan	2,600	257	39	2,896	21	2,917
Morelos	1,085	173	35	1,293	25	1,318
Nayarit	825	62	3	890	6	896
Nuevo Leon	6,793	1,684	274	8,751	194	8,945
Oaxaca	1,055	83	9	1,147	15	1,162
Puebla	2,949	879	156	3,984	71	4,055
Queretaro	1,272	270	66	1,608	61	1,669
Quintana Roo	425	45	7	477	2	479
San Luis Potosi	1,726	315	62	2,103	49	2,152
Sinaloa	2,392	284	36	2,712	24	2,736
Sonora	2,278	333	65	2,676	62	2,738
Tabasco	795	70	8	873	7	880
Tamaulipas	2,632	321	92	3,045	103	3,148
Tlaxcala	481	154	54	689	31	720
Veracruz	3,378	393	51	3,822	65	3,887
Yucatan	1,448	260	36	1,744	25	1,769
Zacatecas	629	53	8	690	2	692
TOTAL	92,556	19,685	3,266	115,507	2,386	117,893

Source: SECOFI.

Table 4. Manufacturing Enterprises,
by kind of activity, 1990

STATE	Micro	Small	Medium	Subtotal	Large	TOTAL
Chemical	2,403	1,092	245	3,740	210	3,950
Clothing	9,410	2,421	346	12,177	165	12,342
Drink	856	255	95	1,206	132	1,338
Food	20,694	2,812	455	23,961	269	24,230
Machines/elect equ.	1,856	701	212	2,769	355	3,124
Machines/non-elect.	4,633	818	103	5,554	59	5,613
Metallic (basic)	942	398	69	1,409	54	1,463
Metallic (exc. mach)	16,536	2,984	393	19,913	219	20,132
Non-Metal. Furnit.	5,050	843	97	5,990	27	6,017
Non-Metal Mineral	4,916	994	123	6,033	123	6,156
Paper	533	258	80	871	71	942
Petrochemical	106	56	10	172	2	174
Printing	7,323	971	143	8,437	64	8,501
Rubber/Plastic	2,725	1,415	259	4,399	126	4,525
Shoes/Leather	4,980	1,321	149	6,450	70	6,520
Tobacco	17	15	5	37	6	43
Textiles	1,977	888	231	3,096	176	3,272
Transport equip.	1,119	381	80	1,580	141	1,721
Wood/Cork	2,515	538	67	3,120	41	3,161
Other	3,965	524	104	4,593	76	4,669
TOTAL	92,556	19,685	3,266	115,507	2,386	117,893

Source: SECOFI.

**Table 5. Share of Mexican Manufacturing Establishments,
Employment and Income by Enterprise size
(per cent)**

	Establishments	Employment	Income
Micro enterprises	77.2	11.3	7.2
Small enterprises	17.8	23.6	19.2
Medium enterprises	2.9	16.0	15.1
Large enterprises	2.1	49.1	58.5
TOTAL	100.0	100.0	100.0

Source: SECOFI.

Table 6. Manufacturing Industry in Yucatan

Region	No. of enterprises	No. of micro-enterprises	% of micro-enterprises
I. Northern Coast	275	268	97
II. East	310	306	98
III. Centre	354	348	98
IV. South	158	156	98
V. Western Coast	167	166	99
VI. Centre North	607	583	99
VII. Metropolitan Area	1,716	1,513	88
TOTAL	3,587	3,340	93

Source: Economic Census 1986, INEGI, SPP.