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Bridging the Gap between Equity and Impact:

A Subsector Approach to Export Promotion in Ecuador

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GEMINI

GROWTH and EQUITY through MICROENTERPRISE INVESTMENTS and INSTITUTIONS
7250 Woodmont Avenue, Suite 200, Bethesda, Maryland 20814

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Bridging the Gap between Equity and Impact:

A Subsector Approach to Export Promotion in Ecuador

by

John Magill
Development Alternatives, Inc.

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ABSTRACT

In recent years, the U.S. Agency for International Development (USAID) and other international donor agencies have emphasized export promotion as an approach to development. Micro- and small-scale enterprises (MSEs) are largely ignored in these programs, partly because of an underlying assumption that MSEs cannot export and partly because of a desire to cause a large impact with a small project. Because of the widely held assumption that MSEs do not and cannot participate in the export sector, export promotion projects target larger firms, with little consideration of the MSE sector.

In 1992, USAID/Ecuador, the Corporación Financiera Nacional, INSOTEC (an Ecuadorean nongovernmental organization), and USAID's Growth and Equity through Microenterprise Investments and Institutions Project participated in an experiment to examine opportunities for greater MSE contribution to exports of ceramics, wood products, and leather garments. This exercise sought to bridge the gap between growth and equity considerations that USAID/Ecuador felt existed in its export-promotion programming.

This investigation demonstrated that MSEs are engaged, at least indirectly, in export activities and that this participation is more prevalent in some subsectors than in others. It also showed that, given a greater understanding of the role MSEs play in export industries, ways can be found to help both MSE growth and export growth as a whole — thereby achieving greater equity along with greater impact. Weaknesses in traditional export-promotion projects can be identified and corrected, and alternative approaches can achieve greater impact, while broadening opportunities for the poor to participate in export growth.

INTRODUCTION

In recent years, the U.S. Agency for International Development (USAID) and other international donor agencies have emphasized trade (in the form of export promotion) and investment as an approach to development. In Latin America, for example, most of USAID's private sector offices were renamed as trade and investment offices, and many USAID Missions, such as the Mission in Ecuador, cut plans for micro- and small-scale enterprise (MSE) projects and shifted those funds to trade and investment projects.

MSEs have largely been ignored in trade and investment projects. This is partly because of a widespread feeling among USAID officials that MSEs do not and cannot participate in exports. MSEs do not export much and would face large problems if they tried, because they lack information about markets (including designs that correspond to market requirements), they lack the resources to produce the quantities required by importers, and they lack the ability to meet prevailing quality standards consistently.

It is also partly the result of an ongoing argument among USAID officials during the past few years over whether MSEs contribute to economic development. Several senior USAID officers have argued that supporting MSEs does not create new jobs or income but is instead a zero-sum game in which participants merely shuffle the same money around. The prevailing argument maintains that helping one MSE does not increase general welfare, because all you do by helping one is hurt another.

Finally, this slighting of MSEs was exacerbated by a desire to cause a visible impact with a small project. The conventional wisdom within USAID has been that only large firms have the capacity to significantly increase exports quickly and efficiently. Targeting large firms provides an opportunity to demonstrate impact in a short period of time and results in the expansion of jobs and wage income faster than does investing in microenterprise projects. Consequently, export promotion projects have been designed to target large firms, with little attempt to include MSEs and little consideration of the impact of export promotion projects on small-scale producers. Many USAID-financed trade and investment projects during the past few years benefited the wealthier classes, with little — if any — trickle-down effect.

At the same time, however, there has been a lingering concern about the equity implications of such programs, and there has been a continued interest in incorporating small-scale producers into USAID programming. An assessment of the microenterprise sector in Ecuador, carried out by the Growth and Equity through Microenterprise Investments and Institutions (GEMINI) Project in 1990, indicates that, although few MSEs export directly, large numbers of MSEs are found in industries identified as having a high potential for export. Other GEMINI research indicates that, around the world, MSEs are directly or indirectly engaged in export activities and that this participation is more prevalent in some subsectors than in others. GEMINI experience has also shown that, given a greater understanding of the role MSEs play in export industries, ways often can be found to help both MSE growth and export growth, achieving greater equity along with greater impact.

In 1991, USAID/Ecuador gave a small grant to the Corporación Financiera Nacional (CFN) to search for ways to involve small producers in export promotion. Subsequently, the USAID Mission, CFN, and GEMINI undertook a pilot project to investigate the extent to which MSEs might be incorporated into USAID's new nontraditional industrial export program. This project attempted to identify the most promising opportunities to promote export growth, while exploiting the comparative advantages small-scale enterprises might offer in selected export-oriented industries.

THE SUBSECTOR APPROACH

Recognizing the limitations of traditional approaches to supporting enterprise development, GEMINI has developed during the past several years an alternative approach that permits donors to focus resources more effectively. This methodology, subsector analysis, is a technique originally developed for studies on agricultural commodity systems and refined under GEMINI to provide a rapid appraisal of the opportunities and constraints facing MSEs in a given industry. It provides a snapshot of an industrial system, from production of raw materials to (in this case) the export of final products to overseas markets. It identifies how MSEs fit into the system, how they cooperate and compete with small and large firms, what access they have to the most promising markets, and what changes to the system could best benefit both MSEs and the industry as a whole.[1]

The subsector approach is not a specific methodology, but is instead a strategy for looking at development opportunities. For example, rather than looking at problems from the perspective of an individual firm, the subsector approach looks at the entire production chain — from inputs to final markets — to identify the participants in those processes and the key impediments to making significant improvements in the situation. Rather than working with a variety of individual firms, the subsector approach seeks to leverage resources by working with a group of firms that have a common interest and a common set of problems. Rather than postulating that a missing input, such as credit, is a common need of all intended beneficiaries and then designing a credit program, the subsector approach seeks to determine the specific or key constraint impeding growth in a sector and to resolve that constraint. The constraint may differ from subsector to subsector — credit in one, a policy impediment in another, or poor product design in yet another. The objective of a subsector study is to identify opportunities for leveraged interventions that produce a greater positive impact on the beneficiaries than do traditional approaches.

This is not a sophisticated, costly, or time-consuming research activity. It is a rapid-appraisal technique designed to quickly provide useful information and insights for practical decision making, not elaborate reports. Neither is it an exclusive product that requires expensive consulting contracts. It is a simple process that, with little training, can easily be applied by local professionals or project personnel and, hence, can be an important tool in planning, designing, and implementing projects.

THE ECUADOR INITIATIVE

The pilot effort in Ecuador took place between July and October 1992. Participating were USAID/Ecuador, the Corporación Financiera Nacional, and INSOTEC, a local research and technical assistance institute. CFN manages a large World Bank loan for export promotion and implements a small program financed by USAID/Ecuador to help small producers expand exports. INSOTEC has carried out several projects with small-scale producers in Ecuador.

Each participant had particular objectives in the pilot project. USAID/Ecuador was primarily interested in determining whether the subsector approach could help bridge the gap between growth and equity that exists in USAID export-promotion programming and could help lead to more effective forms

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[1] For more details on subsector analysis, see Boomgard et al., "A Subsector Approach to Small Enterprise Promotion and Research," GEMINI Working Paper No. 10, January 1991.

of development assistance in the trade and investment sector. CFN was interested in determining whether subsector analysis offered an approach that could help CFN more effectively target its large World Bank export-promotion loan. INSOTEC was interested in learning subsector analysis skills to apply to its MSE projects in Ecuador. GEMINI wanted to test whether the subsector methodology was useful in identifying practical ways to increase the benefits of trade and investment programs for microenterprises. The initiative's objectives were to:

- Demonstrate a methodology — based on looking at specific industry subsectors -- for identifying the major opportunities for and key constraints on export promotion, so that assistance and program resources can be efficiently and effectively planned and delivered;

- Test whether the subsector approach can identify alternative intervention strategies that will increase the impact and cost-effectiveness of development assistance: demonstrate that, in some instances, intervention strategies other than technical assistance and credit may be more effective in stimulating export growth; and demonstrate that selecting appropriate intervention strategies can increase the impact of limited resources;

- Test whether the approach can be successfully used to identify industries that involve MSEs in the production and distribution of export-oriented products;

- Demonstrate that it is possible to promote exports in a way that increases the participation of and the benefit to small producers; and

- Train a core of development professionals in the theory and application of subsector methodology so that they can conduct further activities utilizing this methodology.

Two technicians from CFN and three from INSOTEC worked with three staff members from GEMINI on the pilot project. During the initial two-week visit in August 1992, the GEMINI staff conducted a training session and worked with the technicians to develop two case studies — in wood furniture and leather garments — to demonstrate the methodology. At the end of the two weeks, the team had identified the major processes and participants in the two subsectors, had developed relatively detailed descriptions of the subsectors, and had identified key constraints and impediments to expansion of exports. Following this initial work, CFN and INSOTEC technicians worked independently to collect additional data on the subsectors and carry out a third study — on the ceramics subsector.

In September, the GEMINI advisors returned to Ecuador for one week to help the technicians summarize the results and prepare final recommendations for submission to USAID/Ecuador, and CFN and to an audience consisting of the World Bank, the Inter-American Development Bank, the Inter-American Foundation, and others.

SUMMARY OF SUBSECTOR FINDINGS

We chose three subsectors — wood (later focusing on wood furniture), leather (leather garments and accessories), and artisanal ceramics. The following descriptions of these subsectors are greatly simplified from the work carried out in Ecuador. What is presented here is not a thorough analysis of the subsectors, but a demonstration of the issues that can be addressed through the use of subsector techniques during the design phase of a project.

The Wood Subsector

On the surface, Ecuador appears to have abundant forest resources. Much of the country is still covered by tropical rain forests. Numerous small- to medium-sized factories produce wood furniture. Small artisan shops produce hand carved statues, figurines, doors, panels, and other construction materials. The apparently abundant supply of wood has often led outsiders to suggest projects to support wood product exports, particularly in the furniture sector.

However, exports of wood products have declined in both volume and value during recent years. According to Ministry of Finance data for 1987, the most recent year for which statistics were available, exports of raw wood (balsa and other woods) declined from 12,900 metric tons in 1980 to 295 metric tons in 1987, and export earnings on these products declined from $16.7 million to $700,000. The volume of plywood and particle-board exports did increase from 32,137 metric tons to 135,261 metric tons during the same period, but export earnings from these two products declined from $16.1 million to $9.2 million. Only the export of moldings (frames for pictures, windows, and doors) showed significant growth, with volume increasing from 187 metric tons to 1,492 metric tons, and earnings increasing from $200,000 to $7.3 million during the period. Sales of furniture and chairs, which have always been small, increased in volume but decreased in value during the period; only $40,000 was earned from the export of these products in 1987.

In the wood subsector, a limited subset of products appears to have a high export potential: wood furniture and moldings. The plywood industry is well developed and is dominated by a few very large enterprises. Wood furniture and moldings, on the other hand, are produced by relatively small firms that produce a variety of products, from hand-carved, customized items to production-line, standardized modern furniture.

Looking at the wood subsector from a subsector approach quickly revealed that the subsector can be divided into a series of discrete activities. The major steps in converting trees into exportable products are:

- Research and development,
- Forestry;
- Harvesting (cutting);
- Planking (rough cutting into longitudinal boards);
- Transportation;
- Natural drying;
- Sorting and grading;
- Kiln drying;
- Manufacture of the product; and
- Marketing.

These steps and the types of firms engaged in them can be seen in Figure 1. As shown, the plywood industry is a vertically integrated industry, incorporating in a single large enterprise all steps from initial forestry research to final marketing. But the other wood products depend on a long chain of separate, independent operations.

Most of the wood harvested in Ecuador — especially the wood used by the furniture industry — is a by-product of the process of colonization rather than deliberate harvesting of a commodity. There is virtually no research or forest management; logs are cleared on individual small holdings as the land is cleared to comply with colonization laws; there is no attempt to segregate wood by species or quality.

Many private individuals and small companies (formal and informal) work in the wood sector. Although published statistics do not correspond precisely to the categories identified during the study, the numbers of enterprises engaged in the various stages of the wood industry are roughly as follows:

Exploitation, provision, and transportation	20,000
Cutters	10,000
Rural sawmills and planking industry	3,400
Urban sawmills	2,200
Drying plants	50
Wood storing facilities	12,000
Parquet, case, and furniture manufacturers	1,150
Carpenters and hand-crafted furniture	35,000
Paper and cardboard industries	5,000
Total	88,800

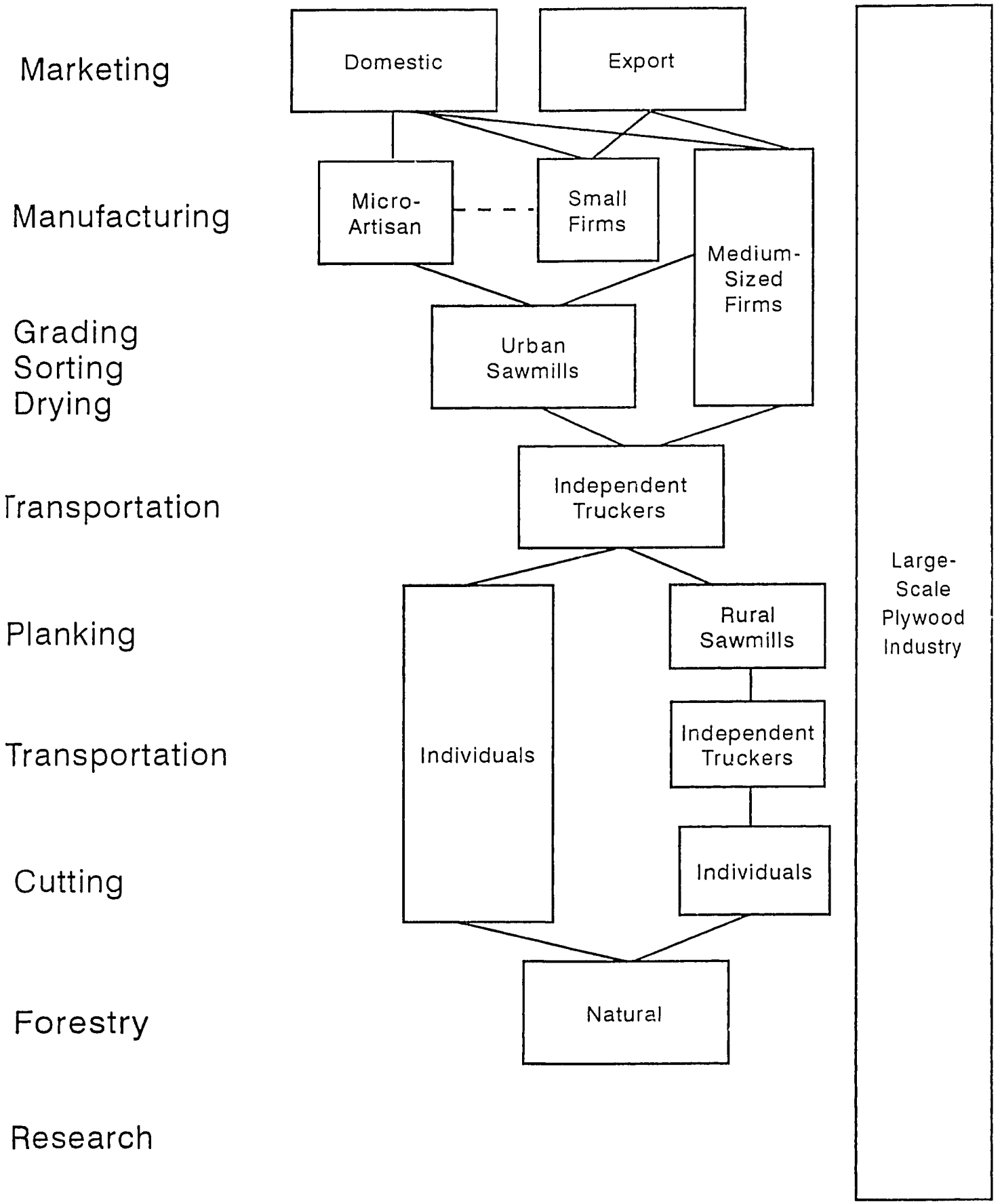
Most of these firms — with the exception of very few small and medium-scale furniture manufacturers — can be classified as microenterprises. As can be seen by the shaded areas in Figure 1, microentrepreneurs (one- to five-person operations) are heavily involved in various stages of this process, although not in the manufacture or export of finished products. Apart from the industrialized harvesting of trees in the plywood plantations, most of the harvesting, rough cutting, drying, and transportation of wood is performed by individuals or microenterprises. Microenterprise activities are also present in the form of subcontracting for specialized ancillary services, such as hand-carving pieces for furniture, upholstery services, parts, and pieces for the manufacturers. A program that greatly expands exports of wood furniture in Ecuador will increase business opportunities for a large number of microenterprises, because it will increase the demand for the goods and services these small firms provide throughout the chain, from inputs to final products.

Other findings of the subsector study have more important implications for programs designed to expand this industrial sector. First, the principle impediments to expanding wood exports from Ecuador have little to do with the manufacturing firms themselves. The main impediments to expanding the wood furniture sector are:

- The low species density of Ecuadorean natural forests, which makes it difficult to obtain a sufficient supply of homogeneous wood;

FIGURE 1

THE WOOD SUBSECTOR



- The wastage of wood caused by the crude cutting, sawmilling, and drying operations that result in a loss of one-third to one-half of the wood; and

- Competitive pressures in potential export markets that demand higher quality at competitive prices, which greatly increases the cost of production and reduces margins for exporters.

Second, all the small- to medium-sized enterprises in the furniture industry had excess capacity. Providing financial and technical assistance to these firms would not create a significant number of new manufacturing jobs, because the firms can produce a greater quantity of furniture with their existing work forces.

Although the provision of assistance and credit to individual producers might lead to modest increases in wood product exports, a series of different steps is required in order to truly develop and expand a wood export industry in Ecuador:

- The introduction of forest management techniques and practices to produce sufficient volumes of homogeneous wood species;

- The introduction of more modern technology and practices in harvesting, sawmilling, and drying wood; and

- The introduction and use of standards and measures in the wood industry.

These are not interventions that the standard approach to designing trade and investment projects had identified. Furthermore, some of these actions would have negative consequences for microenterprises. For example, introducing the use of bandsaws at sawmills in rural areas to improve the quality of planks and reduce wastage would virtually eliminate the jobs of thousands of microentrepreneurs engaged in planking. This is not to say that these improvements should not be made. The subsector assessment is merely useful for identifying the consequences, positive or negative, of specific intervention options.

The Leather Subsector

Tourists to Ecuador are usually attracted by the variety of leather goods available. Shop after shop in Quito and in the two major leather centers of Cotocachi and Ambato displays leather coats, skirts, handbags, suitcases, briefcases, shoes, and other articles. These goods are of reasonably high quality, and the prices are relatively low for the foreign tourist. Given the high demand for leather products in neighboring Latin American countries, Europe, and the United States, leather products appear to present a significant export potential for Ecuador.

The leather clothing and accessories industry has evinced relatively significant growth in Ecuador in recent years — leather exports increased at an average annual rate of 24.6 percent from 1985 to 1991. Nevertheless, despite the growth experienced and despite its apparent comparative advantage, Ecuador's participation in the world market for livestock, leather, manufactured leather goods, and shoes is very small. Total exports amounted to only $176,100 in 1991. Ecuador's sales represent only 0.001 percent of the world market.

The leather subsector is divided into three major products: shoes, clothing, and accessories.[2] This study focused on two of these — clothing and accessories — leaving shoes to a subsequent effort because it is a major subsector that deserves a more in-depth study.

As illustrated in Figure 2, producing leather goods involves seven steps:

- Raising of animals;
- Slaughtering;
- Transportation;
- Marketing of raw hides;
- Tanning and splitting;
- Marketing of finished leather;
- Manufacturing; and
- Marketing.

The majority of the leather produced is taken from domestic animals — cattle, goats, sheep, and pigs. Animal raising is, therefore, the first link in the leather production chain. However, hides, are a by-product of the meat industry—no animals are raised purely for hides, and animals are not raised with a view toward maximizing the value of the hides. Cow leather comes from two sources: the coastal region and the highlands. Hides produced in lowland areas tend to accept the tanning process better but have a higher incidence of defects due to insects, barbed wire fences, and disease. Although leather from cows raised in the highlands has fewer defects, relatively few hides come from this region. The reason is simple: lowland cattle are raised for meat, and highland cattle are raised primarily for dairy products.

Cattle are slaughtered for meat, with relatively little importance given to the hide. Much of the slaughtering is carried out in small-scale, informal slaughterhouses, which use crude techniques in cutting the hides. The absence of adequate technology for cutting the hides is obvious in both informal and formal slaughterhouses. Once the hides are cut, the technology used for preserving the skins is primitive. Thus, the slaughtering process itself reduces the quality of domestic hides and results in considerable wastage.

The marketing of the raw hides is conducted in the slaughterhouses. Intermediaries purchase the hides to sell to tanneries; few tanneries purchase directly. A few intermediaries tend to monopolize the raw hides market, because they provide the credit the slaughterhouses use to purchase the cattle and they are repaid in hides. All hides command the same price — there is no grading, and quality is not a determinant of price. This reduces any incentive to improve the care of animals in order to improve the quality of hides.

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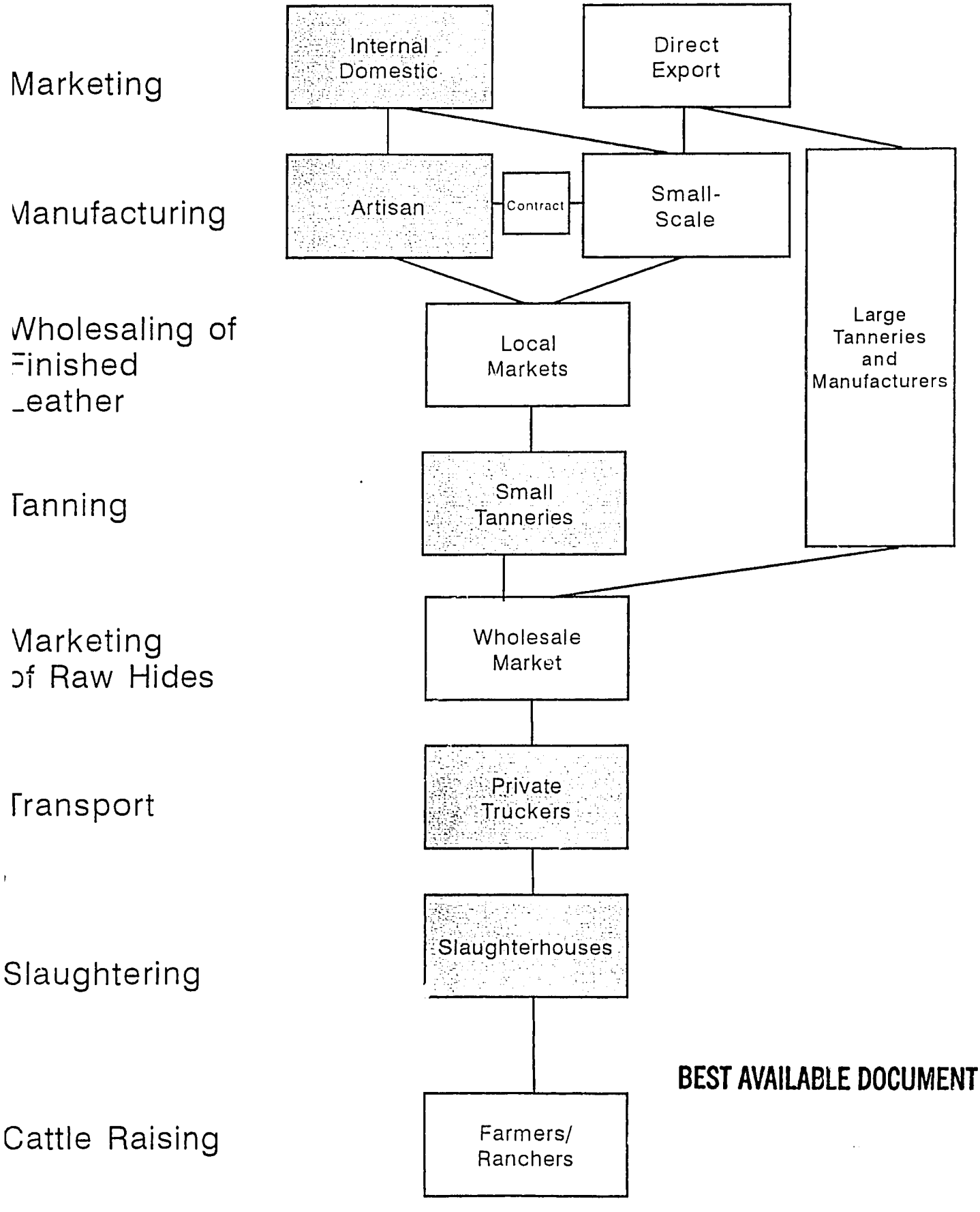
[2] Leather furniture is considered a furniture sector product.

FIGURE 2

THE LEATHER SUBSECTOR



BEST AVAILABLE DOCUMENT

Transportation of raw hides to the tanneries is made by truck, without special measures to protect the skins. As a general rule, traders have their own means of transportation, although, in several cases, small private truckers are contracted for transportation.

Tanning is carried out by two large tanneries and innumerable smaller ones. Small tanneries frequently rent space from larger ones, although most of the tanning is carried out in backyard drums, using cottage-industry techniques. Environmental protection measures are not enforced, and little effort is put into pollution control. The low level of technology employed in the tanning process produces an uneven quality of finished leather. Quality control at this stage is limited to a simple visual inspection, and the absence of laboratories at the production units is evident. Few of the small tanneries, for example, have splitters, and even fewer have splitters that are capable of handling whole hides. Due to the high cost of dividers or splitters the vast majority of firms buy a small piece of machinery which precludes working with the entire skin. The hides are normally divided into two bands, which reduces the value of the finished hide. As a result, the leather industry in Ecuador is characterized by a relatively low quality of leather. A few producers do import leather, but government policies and tariffs generally restrict this.

Tanneries sell finished skins directly to the manufacturers or traders of leather goods. The producers of leather goods include small-, medium-, and large-scale enterprises, which have differing approaches to markets. Medium- and large-scale producers are generally aware of the importance of improving quality; their production commands higher prices and they would like to orient their efforts toward the more demanding European and North American markets. However, most manufacturing of leather garments and accessories in Ecuador is carried out by small-scale producers. There are innumerable microenterprises involved in the sector, and there is a large number of individuals who produce leather goods on a piece basis for the established companies. Women perform much of the labor in cutting and sewing. Although close to export quality, most of the products have defects that would limit their appeal in European or U.S. markets. Designs tend to be outdated, and finishing tends to be a little crude. The great majority of small and micro producers compete among themselves by lowering prices. To survive, they seek the immediate need to reduce costs, which slowly ends up in a gradual deterioration of quality.

Leather goods are sold mainly in the domestic market; the small retail outlets in Quito, Cotocachi and Ambato are independently owned outlets associated with one or more manufacturers. Ecuador's "export" of leather clothing and accessories is through local sales to tourists, who are attracted more by the low price rather than the finished quality. Some products leave the country as an informal export good to Colombia, Peru, and Costa Rica, as traders from these countries contact local producers to buy merchandise and sell it in their respective nations. Also, Ecuadorean traders carry leather goods abroad, especially to the Colombian border. Few, if any, goods are formally exported to major markets. A strong marketing of leather goods is currently taking place in Tungurahua, for export to Costa Rica, an activity the entire town of Quisapincha is devoted to. Nevertheless, the quality of these informal export products is not good, and the risk of ruining the prestige of Ecuadorean leather goods abroad is implicit.

Province	No. of MSEs
Azuay	514
Bolivar	5
Chimborazo	629
El Oro	84
Guayas	520
Imbabura	300
Loja	65
Los Rios	80
Manabi	5
Pichincha	200
Tungurahua	7,817
Total	10,219

As can be seen in the shaded boxes in Figure 2, microentrepreneurs are heavily involved in five of the steps involved in producing leather goods: slaughtering, transportation, tanning and splitting, manufacture, and sales. More than 10,000 firms are involved in manufacturing alone; estimates on the number of firms involved in the other processes were not available.

The leather industry faces many problems at all stages of the production cycle, from the raising of animals to the final product. These can be summarized as follows:

- Marketing and Export Issues
  - Price competition,
  - Quality,
  - Design,
  - No special packaging,
  - Low profit margin, and
  - Competition of small producers among themselves;
- Manufacturing Process
  - Workers that are not highly trained,
  - Limited production capacity, and
  - Poor finishing quality;
- Tanning
  - Uneven quality of tanning,
  - Inability to split whole hides, and
  - Severe environmental pollution;
- The Marketing of Raw Hides
  - Virtually no sorting or grading,
  - Auctioning by lots, and
  - Monopolies or near-monopolies;
- Transportation of Raw Hides
  - Lack of measures to protect the hides;

- Slaughtering
  - Focus on meat,
  - Disregard for quality of the hides, and
  - Poor cutting techniques; and
- Animal Raising
  - Disease and injuries to hides,
  - Absence of incentives, and
  - Insufficient production.

Building a leather export sector would have a significant impact on both small producers and women. The expansion of leather exports, however, especially among small-scale producers, is constrained by several factors. The first is the limited availability of export-quality leather, because of problems at every stage of the production cycle — cattle raising, slaughtering, handling of raw hides, tanning, splitting, and manufacturing. Production is sufficient to meet local demand, but would have to be significantly expanded to meet a strong export demand. Similarly, all producers would have to improve quality to meet the requirements of the North American and European markets.

Although assistance in design, financing for more modern equipment, and development of market contacts will produce some increase in potential exports, the major impediment to the development of a greatly expanded Ecuadorean leather export sector is the absence of quality hides. Assistance — both financial and technical — aimed at improving the raw hides, modernizing tanning and splitting techniques and processes, and developing a system of grading hides will have a far greater impact on strengthening the performance of this sector. However, assistance to improve quality will have little impact on export sales in the absence of strong market forces that demand and reward improvements in quality. Developing and sponsoring a network of international contacts with potential buyers would produce the incentives and standards necessary to stimulate local producers to improve quality, producing a chain reaction to improve quality throughout the production chain. Once that is accomplished, mechanisms for grouping small producers into export associations or other groupings would be needed to form an efficient mechanism for ensuring quantity and quality performance.

The Ceramics Subsector

Cuenca, the third largest city in Ecuador, is the major center for ceramics production in the country. A strong artistic tradition and a close proximity to native raw materials have given rise to a flourishing industry that ranges from the production of export-quality industrial ceramics to home-based hobby ceramics destined for the home market.

As shown in Table 1, ceramics production can be divided into four major product areas — industrial, domestic household, handicrafts, and hobby ceramics — in three major product lines — utilitarian (white ceramics), pottery and artistic ceramics, and building products (red ceramics).

TABLE 1

PRODUCT AREAS AND PRODUCT LINES

Product Areas	Main Product Lines		
	Utilitarian (white ceramics)	Pottery and Artistic Ceramics	Building Products (red ceramics)
Industrial	• China • Lavatories • Bath accessories		• Bricks • Roofing tile
Household Domestic		• Tiles • Flooring • Linings	• Red clay pottery
Handicrafts		• Glazed ceramic household pottery • Decorative ceramic items • Figurines	
Hobby		• Glazed ceramic household pottery • Figurines	• Red clay pottery

The ceramics industry comprises large, intermediate, and small producers. The industrial ceramics sector is dominated by two or three very large producers. These produce china, stoneware, tiles, bathroom accessories, wall linings, and flooring. This same group dominates the domestic household ceramics sector. Intermediate and small enterprises manufacture mostly artistic ceramics, and small producers (microenterprises) are involved primarily in handicraft and hobby ceramics. Micro- and small-scale producers in the Cuenca region produce lamps, ornaments, pitchers, flower vases, and other domestic items for the home.

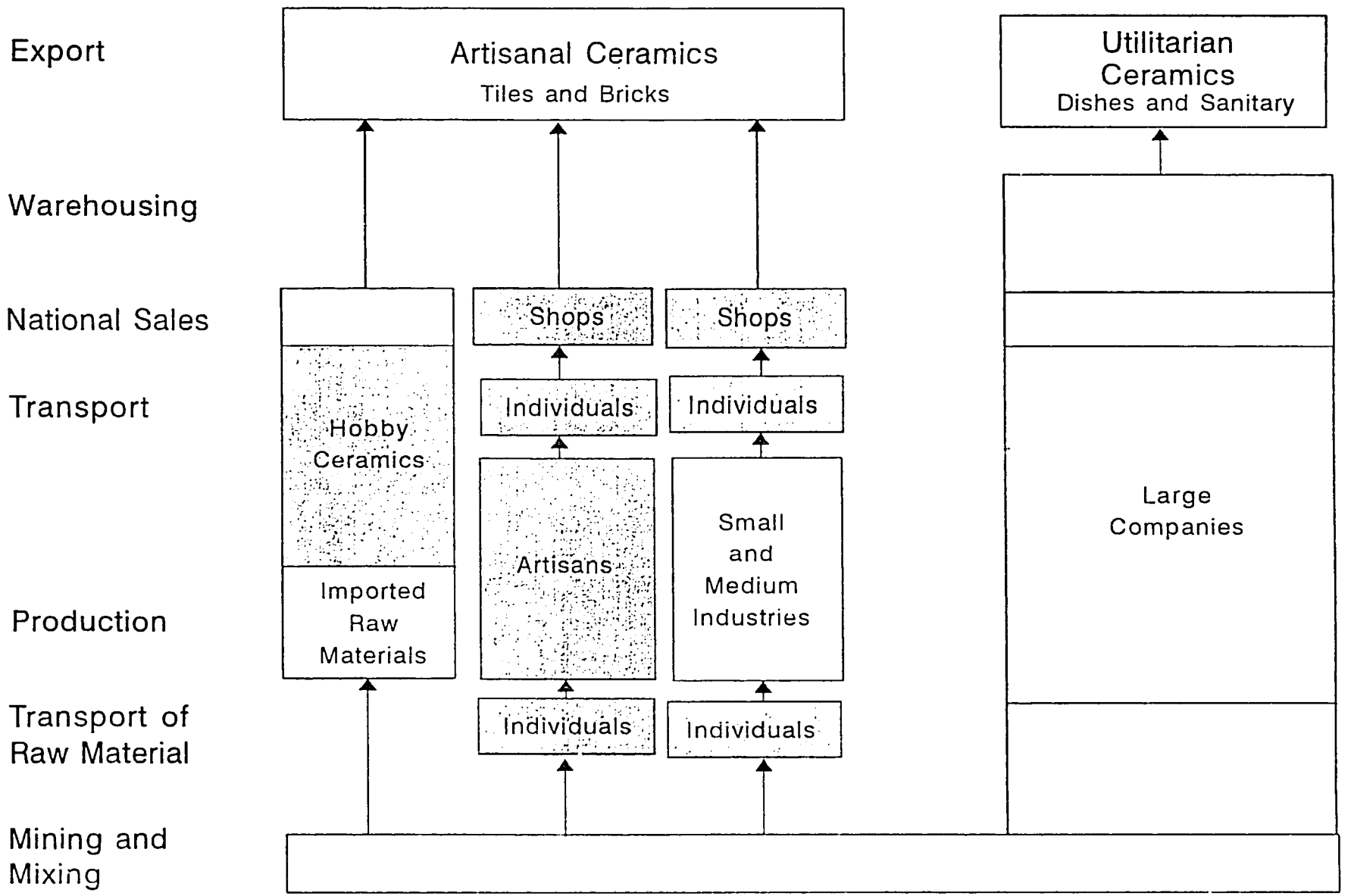
This study was limited to two subsectors — manufacture of earthenware, china and porcelain, and artistic ceramics and manufacture of clay pottery, tiles, and bricks. Artistic ceramics have been identified as having potential for export growth because of the artistic skill of the producers, the aggregate value potential, and technical and financial feasibility.

As seen in Figure 3, the ceramics subsector has a simpler pattern of dynamics than the leather and wood subsectors. There are only six major steps in the ceramics process:

- Mining;
- Blending;
- Transporting;
- Warehousing;

FIGURE 3

CERAMICS SUBSECTOR MAP



- Manufacturing; and
- Sales.

The channels are vertical and clearly identifiable, with hardly any relationships or interdependencies.

Clay for ceramics is mined privately on individual leaseholds. Although many leaseholds are ostensibly in the hands of small private producers, most small producers lack the equipment and the capital needed to exploit the mines, with the result that the large ceramics firms generally work the mining claims. The large firms also monopolize the blending process, producing clays with homogeneous characteristics for their own use. Because of the variability of clay taken from the mines, blending is a critical step involving complex blends from many different sources. Stockpiling clay for up to a year prior to use is common in the industry, especially among smaller producers, who generally find it difficult to obtain blended clay on a reliable basis. Raw materials are imported only to meet the unique requirements of specific products, but this generally involves very small quantities of specialized clays.

Transportation from the mines to small workshops and artisanal workshops is carried out by the large enterprises that control the mining operations. A limited amount of material is transported by third parties (private providers of services). Small ceramics shops reportedly buy clay from the drivers.

Production is straightforward, with each producer preparing a stock variety of products. Production is divided into technical stages:

- **Preparation of Raw Material.** This activity, which consists of drying, sifting, blending, and kneading the components of the clay, is carried out by the individual firms; there is no enterprise in the country that specializes in preparing commercial-grade clays for general distribution. Because the quality of the final product depends heavily on the composition of the clay mixture, quality varies widely from enterprise to enterprise and from one week to the next;

- **Shaping of Pieces.** Several techniques, depending on the final product, are used to shape pieces. Pieces are then dried. Small firms typically use locally made kilns, while the large enterprises have specialized, high-volume kilns; and

- **Glazing.** Pigment is applied to the pieces to produce the colored patterns, and the pieces are generally fired twice to produce a hardened, resilient finish.

Most production by MSE ceramics producers is in artistic ceramics, sold in the domestic market. At least 65 percent of this production is sold in local, regional, or national markets. As these are items for discretionary family consumption, sales have declined considerably in recent years because of the country's extended financial crisis.

The large enterprises export their products to countries such as Peru, Chile, the United States, and Germany. Growth aspirations, with the production of new lines and stoneware, are oriented toward the European market, especially the Spanish and Italian markets. However, few micro-and small-scale producers participate in this market.

This is an industrial subsector in whi[illegible] MSEs form [illegible] large portion of the potential productive base. Data from the National Handicrafts Gui[illegible] indicate that [illegible]re are more than 1,200 MSEs producing artistic ceramics in the country.

According to research performed by t[illegible] Cámara de la Pequeña Industria del Azuay (CAPIA) in April 1992, the main constraints confronting [illegible] scale producers in Ecuador are:

- Difficulty in obtaining a reliable s[illegible] of consi[illegible]nt-quality blended clay;
- The high cost of raw materials [illegible]ing from the monopoly over mining and blending operations by the larger producing [illegible]s;
- A low and declining internal m[illegible] for ce[illegible]mic products combined with underutilized installed capacity, resulting in sat[illegible] of local markets;
- A lack of adequate information on foreign markets, including requirements for design and quality (resulting in a general inability to produce designs that would appeal to international buyers), a lack of knowledge about the procedures involved in export operations, and a lack of adequate knowledge about costs involved in the export markets;
- An absence of technical skills am[illegible] personnel, an absence of quality control systems, and a need to upgrade production technology and techniques; and
- The absence of technical support and assistance.

In summary, the handicraft pottery of Cuenca is of high artistic quality and appears to represent a potentially significant export market for Ecuador. It is one of the few industries in Ecuador that relies almost exclusively on domestic raw materials. The two major impediments to expanding this sector are the lack of small producer access to blended clays and the lack of contact with and lack of familiarity with export markets. Only actions designed to overcome these constraints will have a major impact on increasing exports from the subsector. To overcome the problem of lack of access to a reliable source of quality raw materials, either an indirect investment in a mining and blending operation to serve as a wholesale distributor or the formation of some sort of producer association or cooperative would be required. To develop effective export market contacts that could lead to improved designs, improved quality, and export contracts, assistance in developing export associations (consortia or cooperatives) or assistance to subsidize the cost of bringing buyers to Ecuador in a structured program that combines marketing with technical assistance would be required. Only when these actions have been carried out will direct assistance to — and investment in — individual firms result in significantly expanded exports.

GENDER CONSIDERATIONS

Although the primary purpose for this activity was to look at the role of microenterprises, the subsector approach can be used to examine other issues as well — such as the role of women and the impact of project interventions on female participation in an industry, the project's impact on geographic distribution of benefits, and the impact on indigenous populations. The Ecuador project examined the role of women in the three subsectors.

BEST AVAILABLE DOCUMENT

Women were notable for their absence in the wood sector. Almost no women worked in the cutting, sawmilling, transportation, or drying of the wood. Very few women were engaged in the manufacturing process; the few we did find worked in assembling parquet or in upholstery operations of furniture manufacture. A few women were employed in office positions in most of the companies.

Similarly, women did not constitute a large percentage of the work force in the artistic ceramics subsector. The few women employed in this sector were engaged primarily in sales and glazing the ceramics.

In contrast, women were highly visible in the leather subsector. Although few, if any, participated in the slaughtering, tanning, and splitting operations, large numbers were engaged in the manufacturing of leather goods and in the sale of leather products in the small shops of Cotocachi, Ambato, and Quito.

Among the three subsectors studied here, therefore, the lesson is that, if a donor agency wants to support employment opportunities for women, it should invest in the leather subsector but not in the wood furniture subsector. Whether to invest in ceramics would depend on other criteria.

LESSONS LEARNED

Lessons from the Ecuadorean case studies fall into three general categories:

- The role of microenterprises in export-oriented production;
- The efficacy of intervention approaches; and
- Equity considerations.

The Role of MSEs in the Export Sector

In the three subsectors studied in Ecuador, microenterprises play a key role in preparing and producing products for export. They may not produce the final products or do the exporting, but they are engaged at various points in the production chain. Programs that succeed in expanding exports often have the indirect beneficial impact of creating demand for the intermediate goods and services supplied by microenterprises.

Microenterprises are more densely clustered in some industries than in others. Selection of the subsector to support has implications for a program's impact on microenterprises. Work with subsectors that involve large numbers of microentrepreneurs in the production chain has a greater impact — positive or negative — on microenterprises than do projects that involve subsectors with little microenterprise participation. The subsector approach can be used to identify the situations that increase the potential for expanding the participation of microenterprises in the export process.

Efficacy

Many donor-financed export promotion activities have a minimal impact on increasing exports. Traditional approaches to expanding exports — credit and technical assistance to individual firms, exposure to trade fairs, and so forth, in an attempt to help individual firms expand their export markets — have a limited impact because they fail to address the fundamental constraints on development of the export industry. In the three subsectors studied in Ecuador, firm-level interventions would produce relatively little benefit to the country. The fundamental constraints on expanding the export of wood furniture were the absence of adequate supplies of consistent wood quality and species and the tremendous wastage in handling wood from the forest to the processing plant. The fundamental constraint on leather exports lay in defective hides and crude tanning technologies. And the key impediment to improved artisanal ceramic products was the monopoly of the industrial ceramics sector over the mining of raw materials. In none of the subsectors would firm-level assistance contribute more than a minimal increase to exports.

Uniformly, we found that common or traditional development approaches — whether for export or MSE development — are inefficient. They are high-cost, produce relatively little measurable improvement, and have few, if any, externalities. Some subsectors respond well to technical assistance and credit; others do not. Targeting credit and technical assistance resources toward subsectors that respond to those inputs is more effective and efficient than generalized technical assistance and credit. It is possible to identify the key constraints on developing the export potential of general products within the subsector and specific exportable products and to identify the types of interventions that would have the greatest impact on expanding exports within the subsector. Therefore, it is possible to design programs that have a much greater potential for leveraging resources and significantly increasing exports. Examining the industries from a subsector perspective permits the project designer to identify the critical constraints in a subsector and to tailor project interventions to address those constraints more efficiently than do traditional design methodologies.

Equity

The Ecuador initiative demonstrated that it is possible to bridge the gap between immediate results and equity. Some subsectors provide strong possibilities for microenterprise participation; others do not. Investing in subsectors that involve substantial numbers of microenterprises benefits larger numbers of these small businesses than does investing in subsectors dominated by vertically integrated large firms or subsectors that do not involve microenterprises in intermediate processing stages.

Furthermore, subsector analysis can be used to examine other equity issues, such as gender, ethnicity, or geographic impacts. Although the Ecuador initiative focused on microenterprises, the studies revealed that women are more prevalent in the ceramics and leather subsectors than in the wood subsector and that interventions in the ceramics and leather subsectors are more likely to benefit women than are interventions in the wood subsector. Women's participation varies between different export subsectors and the extent to which a donor program wishes to involve women will influence strategy — both in terms of the subsector selected and in the kind of intervention strategy employed. The same approach could be used to explore other social issues during the design phase.

Related to this, the nature of the intervention will have a significant impact on equity considerations. Efficient solutions may have an extremely negative impact on MSEs or women — unless other actions are taken. As one example, the efficient solution in the wood products subsector would be to install portable sawmills to reduce waste, but this would have an extremely negative impact on the

individual small businesses engaged in cutting wood unless the assistance program also helps group small producers to jointly own the portable sawmills. As another example, efforts to improve output of the large producers in the ceramics subsector will reduce the availability of clay for small producers unless parallel activities are undertaken to ensure continued access to raw materials for small-scale producers. Small-scale producers are involved in these subsectors, and their well-being will be enhanced or diminished by project interventions. However, well-planned programs do not necessarily involve a trade-off between equity and production or export volumes.

APPLICATION OF SUBSECTOR ANALYSIS TO THE DESIGN OF EXPORT PROMOTION PROJECTS

Perhaps the most important lesson learned from the Ecuador experience is that subsector analysis offers donor agencies a low-cost rapid-appraisal tool that can quickly provide useful information and guidance for project design. A team of local personnel can, with limited guidance and in a very short time, scan the options available and validate intervention strategies. This process can quickly:

- Identify products and commodities that have a strong export potential and weed out those that do not, allowing donors and host country agencies to focus programs on products with a high export potential;

- Identify the specific constraints on expanding exports in selected commodities or products, allowing donors and host government agencies to plan project strategies to address the specific problems that need to be resolved, increasing the likelihood that beneficial changes will occur;

- Distinguish between situations that respond well to an infusion of capital and situations that do not, allowing donors and host government agencies to focus capital resources on industries that can make effective use of them and to avoid those that cannot. In this situation, subsector analysis improves the allocation and impact of development resources; and

- Identify subsectors that involve small producers, women, or other subgroups to a greater extent than others, either as direct exporters or as providers of raw materials and components — offering a mechanism for bridging the gap, currently developing within USAID programs, between rapid growth and equity considerations.

In summary, subsector analysis offers donors and host country agencies a powerful tool for making preliminary design decisions. As a first-level diagnostic tool, it can be used to cull viable options and alternatives and point the way to more in-depth analysis where needed and feasible. It will not take the place of detailed feasibility studies, but it can help in the preselection of alternatives based on rational criteria for potential impact.

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7. "Mongolian Chamber of Commerce and Industry: Business Development Specialists Training. Special Publication No. 7. September 13-24, 1993. In English and Russian. $11.40.

8. "Private Enterprise Development in Armenia: Training Materials." Special Publication No. 8. March 21-23, 1994. In English and Russian. $9.70.

Other Publications of General Interest:

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