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ECUADOR LABOR FORCE ASSESSMENT

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ACRONYMS

AEALC	Asociación de Economistas de la América Latina
AED	Academy for Educational Development
ASOMETAL	Asociación de Metal-Mecánica
CAPEIPI	Cámara de la Pequeña Industria de Pichincha
CEBCA	Corporación Ecuatoriana de Bienes de Capital
CENDES	Centro de Estudios Económicos
CEPAL	Centro de Estudios para la América Latina
CONADE	Consejo Nacional de Desarrollo
CONAM	Consejo Nacional de Modernización
FEDEXPOR	Federación Ecuatoriana de Exportadores
HRD	Human Resources Development
ICAPI	Instituto de Capacitación de la Pequeña Industria
INEC	Instituto de Estudios y Censos
INSOTEC	Instituto de Investigaciones Sociológicas y Técnicos
MFA	Ministry of Foreign Relations
MICIP	Ministerio de Industrias, Comercio, Integración y Pesca
PROFOPEM	Programa para el Fomento de la Pequeña Empresa Metalmeccánica
SECAP	Servicio Ecuatoriano de Capacitación Profesional
SOW	Statement of Work
TOR	Terms of Reference
USAID/LAC	United States Agency for International Development/Bureau for Latin America and the Caribbean
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

PURPOSE OBJECTIVES, AND ISSUES OF STUDY

The purpose of this consultancy is

to properly assess the capacity of Ecuador to meet the labor force requirements for an increasingly competitive and integrated global economy by reviewing four key sectors of the economy, as well as the national legal, regulatory and institutional framework affecting employment and technical and managerial training.

Seven specific objectives of the Statement of Work (SOW) support this purpose. Beyond the stated objectives, the study team determined that several underlying, fundamental issues existed that conditioned the worker pool's general trainability, public and private sector perception and projection of training needs, and the industrial sectors' management responses to training needs. These key issues currently governing a labor force assessment in Ecuador are the quality of formal education (particularly primary); the evolution of a competitiveness-stimulating policy and regulatory environment; the focus of industry on measurable productivity advances so as to compete in both the Ecuadorian and overseas markets; and the establishment of databases that will allow the projection, measurement, and international comparison of competitiveness factors, including those of vocational and supervisory training. While the effects of educational reform take years to appear in the labor market, the combination of an enabling environment and of management focused on productivity will facilitate a positive private sector approach to long-term employment and, consequently, to training. These three additional issues with great bearing on the SOW's purpose and objectives were treated in the study and are also addressed in this executive summary.

(See Appendix 1 for the complete statement of work and Appendix 2 for a summary.)

STUDY APPROACH

After receiving inputs and approval from USAID/Ecuador, USAID/LAC prepared the Terms of Reference (TOR), and contracted the Academy for Educational Development (AED) to carry out the study. AED contracted a team of seven consultants to implement the study in the three-week period between 17 October and 12 November. (See Appendix 3 for the study methodology.)

BACKGROUND AND CONTEXT

Socioeconomic Background

From the late 1930s through the late 1980s, Ecuador enacted a plethora of social and labor legislation meant to protect the working class. From the early 1960s, import substitution became another pillar of subsequent Governments. This was supported by a customs framework that protected Ecuadorian industry against imported products by applying high duties and facilitated local production by exempting or applying low duties on capital goods and raw materials. Additional legislation was appended to create stimulation of small

industry by off setting distortions. Accompanying this legislation was an escalating corps of civil servants to "manage" this maze of laws.

This combination of labor protection and an import substitution model resulted in or contributed to (a) the protection of the interests of a relatively small number of workers; (b) substandard utilities and infrastructure; (c) the protection of industries producing low-tech finished products; (d) bureaucracy bloating and inefficiencies that are discouraging to private formal sector entry, growth, and efficiency; (e) low industrial productivity and quality focus, supplanted by one of circumventing labor and tax regulations; and (f) minimal worker training, as workers were generally not long-term assets in which to be invested.

The Modernization Process

The Government of President Sixto Durán-Ballén came to power in mid-1992 with the aim to modernize and down-size Government, privatize many parastatals, and liberalize trade. This denoted massive macro- and policy-reform and implementation, institutional reform, and an alteration of the Government role from one of controller to that of facilitator, all with the guiding aim of creating an enabling environment for Ecuador to enter the mainstream of global competitiveness. Although macro- and policy-reform legislation has been substantial, its implementation has varied from negligible to inadequate. While Ecuador remains mired in intentions and paper reforms, neighboring Colombia and Peru have sprinted ahead in making effective their macropolitical, economic, and institutional reforms that strengthen their positions in global commercial rivalry and in attracting international investment.

Education

The formal education system is neither designed nor budgeted to provide school leavers who respond to market needs and demands. Starting at the primary level, the system and curriculum do not encourage the development of responsive, problem-solving students. Moreover, the budget restraints do not permit salaries that attract highly trained or motivated teachers, nor can adequate physical plant and materials be provided for the young population. Also, teachers in the public schools are usually products of the inferior public universities. Increases in labor productivity will be directly linked to curriculum and budgetary reforms, particularly of basic education. School leavers who can reason deductively, communicate clearly, and resolve problems will automatically be more productive workers than those turned out by the public school system of today. In addition, those with good skills will be able to maximize their learning in further education and training.

Private Sector Orientation, Competitiveness, and Productivity

The orientation of the manufacturing private sector has been molded by the socioeconomic legislation, the import substitution model, and the heavily centralized system of Government from the 1930s through the late 1980s. The overall framework of social protection, Government imposition, and import substitution has encouraged a general private sector orientation that can be summarized in the word "circumvention." The business of national industry, by and large, has not been to make products to meet precise market demands nor to

operate in a highly productive fashion. As the Ecuadorian market was protected from sophisticated competition from abroad, the real business became to sidestep perceived overprotective labor laws and taxation. Greater profit could be made by avoiding large worker compensation settlements (by not retaining workers for too long) or by avoiding showing profits. The shift to a liberalized economy, labor law reforms, and a Government that encourages private sector participation in policy and inactions previously monopolized by the state should cause the manufacturing and commerce sectors to take to a proactive orientation of proposing and doing rather than of protesting. One of the focuses will be on the competitiveness and productivity factors that will allow them to prosper both in the home market and in the international markets. This, in turn, will embrace labor productivity.

In fact, this metamorphosis is already happening under the leadership of the Cámaras de Producción and particularly Nongovernmental Organizations (NGOs), the Chambers of Industry and of Commerce in Quito and Guayaquil, the Federación Ecuatoriana de Exportadores COPEX, and the Fundación Ecuador.

The Congreso Nacional de Industriales held in January 1994 was the best example to date of collective private sector adherence to a new modality of aggressive proposal and the promise of implementation in alliance with the state. As a result of this Congress, an important and comprehensive document¹ that addresses the gamut of restraints to Ecuador entering forcefully into the mainstream of global industrial competition was created.

Information

Industrial information, in general, in Ecuador is inadequate and is not updated frequently. Existent labor databases are insufficient for practical and timely applications. The recompilation of data to establish training needs and demands is sparse. The raw data collected (such as the general census and the quarterly household surveys) are not readily shared with institutions and projects (such as this study) that need the data for purposes not encompassed by the institutions carrying out the surveys. Even the state training institution Servicio de Capacitación Profesional (SECAP) has a poor record in basing its curriculums and instruction on market research. At the private sector level, the chambers and associations have not developed meaningful databases to project skills and training needs of the various industrial sectors that they represent.

Summary Conclusions

The background, framework, and contextual issues bear unusually weighty influence on the details of this report. However, various major conclusions and recommendations must rely on them. By and large, the technical and institutional training aspects the study was asked to investigate are subservient to and conditioned by what will be done in the next few years in basic education, implementation of policy reforms, information development, the

¹"Memorias: Congreso Nacional de Industriales, Enero 12-13-14 de 1994", Federación Nacional de Cámaras de Industrias y Cámara de Industriales de Pichincha.

development and dissemination of a "total quality" mentality, and the process of the private sector assuming an active role in the proposal and execution of socioeconomic reform. Because of the higher-level distortions, the labor supply and demand numerical and skills projection questions can be regarded, as (a) germane only for the short term as they would soon change under the evolving policy framework, (b) inapplicable as they would alter and be better defined as management turns its focus to productivity, and/or (c) not accurately answerable because of lack of public sector and private sector demand projections.

SECTOR PROFILES

Agroindustry

In 1990, 35,297 people were employed in food industries and by 1992 this number had increased by 28.8 percent to 45,454.

Currently, 35 plants produce canned and bottled food products; 3, IQF plants; 35, vegetable oil; and 15, other food processing areas.

The capital intensive, export-oriented plants are tending to prosper while the small, labor-intensive ones are disappearing. As of 1991, an average of only 36 percent of installed production capacity was being used in the following breakdown:

Procesadoras de alimentos, frutas y vegetales	25%
Procesadoras de pastas y salsas	45%
Procesadoras de aceites	50%
Procesadoras de mermeladas de frutas	30%
Procesadoras de jugos concentrados	25%
Procesadoras de frutas y vegetales congelados	30%

Metal Fabrications

This chapter concerns itself with formal sector companies that were included in the Corporación Ecuatoriana de Bienes de Capital directory that lists 970 companies in 15 cities and 11 provinces and represents over 12,000 workers. The automotive sector was included to broaden the scope of investigation and to give a more accurate breakdown of the requirements over the whole sector. In total, 26 formal private sector interviews were conducted representative of 2,200 workers, from entry level to senior management.

The sector spans the whole spectrum of capital products from the manufacture of simple metal products, such as steel fencing, extruded profiles, and metal storage tanks, to the construction of weighing equipment, metal and woodworking machinery, and complex electromechanical and vehicle assembly. These products reflect groups that fall into more than 600 subproduct headings and innumerable and diverse individual items serving all levels of industrial and private sector use. A complete table of subsector product ranges is in Annex IV.4. Within this sector, there are state controlled, private formal (registered), and private informal (unregistered) companies. Fifty percent of those companies in the sector

conducted 100 percent of their business domestically with no intention of expanding into other markets. However, the sector services a number of markets locally and within Latin America. The principal markets are Colombia and Venezuela, which account for 48 percent of the total exports undertaken by 40 percent of the companies in the study. Peru and Brazil were considered as growth and development markets, and of the companies assessed, 20 percent were actively trading in those countries. Though close neighbors were considered the principal export markets, trade is also conducted with the United States, Europe, and Caribbean countries. Within the national market, competition is high due to the volume of contraband goods and lower priced items from neighbors.

Textiles Clothing and Apparel and Leather Apparel

From 1985 to 1993, the Textile Clothing and Apparel and Leather Apparel and Accessories (TCA/LAA) sector has contributed an annual average of 3.5 percent of total gross domestic product (GDP) and 21.9 percent of the total value added in manufacturing. Some 50 percent of total value added by the TCA/LAA sector is contributed by small- and medium-size industries. Mainly because of financial limitations, only stock companies and some limited partnership companies are believed to be potential exporters or capable of competing with imports. Therefore, at present conditions, growth of the TCA/LAA sector will require that existing stock companies increase their present production and that more formal sector companies are formed.

To survive and flourish, the TCA/LAA sector must face some serious threats:

- high contraband levels (20-40 percent)
- better quality imports, better design imports, and better fabrics imports
- more fashions and colors of imports
- lower prices of imports
- underpriced and used clothing apparel imports
- politicized labor climate with anti-private sector attitude
- decreasing purchasing power of consumers
- Government bureaucracy
- unstable and unclear policies

Future opportunities for developing of the TCA/LAA sector in Ecuador will depend, in large part, on the Government's industrial policy, the availability of long-term credit at internationally competitive rates, and new external investment. If the present constraints continue, this sector does not have much of a future.

The natural development of present TCA/LAA production has been supported by informal sector apparel manufacturers. Industrialized countries are having a difficult time transforming highly integrated manufacturing processes into more flexible and cellular manufacturing. Ecuador has this type of process, but it is fragmented and disorganized, and the workers are not properly trained.

WORKER TRAINABILITY AND EDUCATION

Findings and Conclusions

- The public primary education system does not prepare students in "life skills" that facilitate clear communication and problem solving. Of note, 100 percent of the 26 companies interviewed on the metal fabrications sector expressed dissatisfaction with the educational standards.
- School leavers who can reason deductively, communicate clearly, and resolve problems will automatically be more productive workers than those turned out by the public school system of today. Furthermore, they will be able to maximize their learning in further education and training.
- Increases in labor productivity will be directly linked to curriculum and budgetary reforms, particularly of basic education.
- Secondary education is still heavily directed at preuniversity, liberal arts studies. Nevertheless, most students do not graduate from university, and most of those who do graduate earn a degree in a liberal profession, thus causing an oversupply in the field. Despite a healthy growth in technical schools, the vast majority of middle-school students in these institutions major in administration.
- Public university education needs to be taken from its eminently political sphere and be returned to the domain of education so as to serve its students and the market demands.
- Public policy that attacks the root causes of poverty must address both the quality of education and the quality of jobs being created. Improving educational quality involves both the rationalization of the system and a reorientation of the content of the system to produce basic knowledge and critical thinking skills that can be refined and oriented towards specific jobs and occupations several times over a working life.

Recommendations

- The international donor, the Government, and the private sectors should place the highest priority on improving primary education as a *sine qua non* to establishing a productive labor base.
- These same sectors should support higher education reform as necessary to supply the Ecuadorian job market with the quality and the skills that employment areas demand.
- The private sector, through its chambers and sectoral organizations, should participate in reforming, redesigning, or amending the primary and higher education projects and, thereafter, in supervising implementation to assure that the public education system produces students at the primary level with the skills to face life as productive

individuals, rather than as learning-handicapped ones and at secondary and university levels with skills to meet the demands of Ecuador.

COMPETITIVENESS AND PRODUCTIVITY

Findings and Conclusions

- The long-standing framework of social protection, Government imposition, and import substitution engendered a national industry that, by and large, has not had the primary focus of making products to meet precise demands nor of operating in a highly productive fashion, but has had the more profitable focus of circumventing perceived overprotective labor laws and taxation. Therefore, laborers were not widely seen as long-term assets by these industries, and investment in their training was usually minimal.
- Multinationals and some national firms contractually bound to multinationals, however, do generally follow international norms and practices in productivity implementation, including training of staff and laborers. Enabling legislation and conditions to attract foreign investment and joint ventures will have a salutary effect on national industries joining productivity movements, such as Total Quality and ISO9000. (See page V-25 for further information on total quality ISO9000.)
- Labor and supervisory training is a component of competitiveness and productivity, and as such its evolution depends on success in this greater area of endeavor.
- Ecuador is now at a politico-economic juncture that permits and encourages a public-private sector alliance to progress in tandem to create enabling policy and institutional environment. However, the Government must muster the political will to go beyond paper reforms and into aggressive implementation.
- The private sector is now willing to go beyond protest and proposal and to commit itself to active participation in implementing and supervising reforms and programs for the betterment of Ecuador's competitive position and industrial productivity.

Recommendations

- The Congreso Nacional de Industriales' recommendations of close collaboration among the Government, the proponent groups of the private sector, and labor to bring about a wide-based competitiveness and productivity transformation that will permit Ecuadorian products to compete at home and abroad should be followed.
- Major federations and chambers should receive donor support in the areas of database development and productivity program dissemination.

INFORMATION

Findings and Conclusions

- Databases in Ecuador on which to base productivity (including training) decisions are inadequate and not frequently updated.
- The raw data collected is not readily shared with institutions and projects that need the data for purposes not encompassed by the institutions carrying out the surveys.
- With the rapid changes occurring at both the macrolevels and operational levels in Ecuador, employment and skills demands research needs to be carried out frequently, as in this ambience information ages quickly.
- Educational reform cannot be fully successful without including informational inputs on the types of jobs that will be available. Parents and young people will only sacrifice the foregone income implied by remaining in school if they see that additional schooling has a clear benefit.
- Ecuador must enter the mainstream of the information age so that all institutions and industries will be able to make timely and valid decisions that will aid the country to be on an equal footing with commercially competing countries.

Recommendations

- The continuous collectors of survey data such as INEC, CONADE, and Banco Central should provide greater disaggregation of information and develop information sorts and grids to serve more needs. When this is not possible, they should provide freer and timely access to raw data so that users may produce specific information needed.
- A mixed public-private sector "Consejo Superior de la Informática" (Information and Database Commission) should be formed for two reasons (1) to define who needs what information, for what purposes, with what frequency, and at what level of detail and (2) to draw up a practical structure and plan to collect, tabulate, correlate, and distribute information with a minimum of collection overlap and a maximum of timeliness.
- In relation to labor requirements projections, two levels of database development should be considered: (1) that which is related specifically to labor and (2) that which incorporates and correlates the first level with the wider issue of international competitiveness. The "Consejo Superior de la Informática" can determine an apolitical institution to provide the service.
- Proven international firms should be contracted to design or redesign the assigned institution not only to formulate a nationwide labor profile and industrial skills

requirements study model but also to set the foundation for competitively and productivity measurement models that will interlock with those used in other nations.

SOW ASSESSMENT OBJECTIVE #1:

Identify and explain anticipated current and projected (3-5 years) imbalances in technical and managerial skills demand and supply in apparel and textile, leather products, food processing, and metal fabrications industries.

Major Findings and Conclusions

- A deficit of agricultural workers is projected to occur by 1999. Oversupply of workers is now and will continue to be greatest among professionals, administrators, and clerks and least among artisans, and unskilled workers.
- Because of high rates of unemployed and underemployment, inadequate information on productivity and goods' demands, and interventions causing distortions, the wage rate "signal" to the market is not functioning satisfactorily. Therefore, labor is not being allocated efficiently, and information does not exist from which to project dependable, quantified sector-by-sector, skill-by-skill demand and supply.
- Low savings, capital formation, and foreign investment and high interest rates constitute continuing threats to growth in skilled and supervisory positions in the sectors reviewed. A future deficit in agricultural workers could aggravate raw materials supplies to Agroindustry and reduce employment potential. Likewise, the lack of raw materials to develop and sustain an indigenous heavy industry is a constraint to employment growth in the metal fabrication sector.
- Agroindustry employed 35,297 workers in 1990 and 45,454 in 1992 for a 28.8 percent increase. Of 12 medium to large agroindustries visited, employment totaled 1,688 of which only 17.2 percent were women.
- The 970 companies in the formal sector of metal fabrications employ over 18,000 workers. Managers from 26 of these companies employing 2,200 workers were interviewed. An increase of 20 percent in this sector's employment is projected between 1993 over 1995. The auto-assembly subsector could increase 35 percent in this time same period. Nevertheless, the work forces may even decline thereafter because of technification and productivity increases.
- Based on a determined scenario of hypotheses in Chapter VI, the combined textile and cloth and leather apparel industry has the potential to create 30,000 new formal sector jobs between 1995 and 1999. Of these, 52 percent would be laborers and operators and the rest (see Table VI.5) would be mechanics, supervisors, quality inspectors, trainers, midlevel managers and engineers, clerical workers, etc.

- A 1991 competitiveness profile showed that of 17 factors considered, Ecuadorian textile industry was highly competitive with international standards in labor costs (but not in labor productivity) and top management professional development. Mid-level technical management and supervisory staff was not competitive.

Recommendations

- Recommendations offered in competitiveness and productivity; information; effects of labor, tax, and employment laws; and labor market data should be followed as they will result in a better functioning labor market, information bases, and the dissemination of training-oriented productivity/total quality programs use.
- Within a productivity enhancement framework, particular attention should be paid to education, training, and motivation of midlevel and supervisory management.

SOW ASSESSMENT OBJECTIVE #2:

Determine whether the human resources practices of employers serve to promote or discourage increases in labor productivity.

Findings and Conclusions

- By and large, informal sector employment terms (low pay, short tenure) militate against increases in labor productivity.
- Those companies in the formal sector that do not promote job longevity and training, do not promote labor productivity increases. Those that do promise job stability and professional development of their employees are promoting an increase in labor productivity. Those that are engaged in productivity programs, such as total quality, actively and consciously promote greater yields in labor productivity.
- The traditional autocratic management styles and the lack of knowledge or implantation of productivity methods prevailing in many companies discourages any sustainable increase in labor productivity.

Recommendations

- Leadership training and the principles of productivity should be committed to by top management and be inculcated in midlevel management and technical staff.

SOW ASSESSMENT OBJECTIVE #3:

Determine the effect of national labor, tax and employment laws on productive employment, training, job mobility, and wage flexibility in the four targeted areas as well as in the general labor market, if feasible.

Findings and Conclusions

- Labor policies are often cited as disincentives to offering stable, long-term, formal sector employment and to higher investment in employees, for example, via advanced training. Specifically, compensation requirements for firing, retirement payments, labor union formation regulations, and compensation stacking on base salary are blamed by some for the extensive use of short-term employment, informal employment agreements, containment of company size, and even avoidance of entering the formal sector. While employers and Chamber officials cite the restrictiveness and pro-labor bias of the current labor norms (as reformed in 1991), most have instituted practices that minimize the negative impacts on their firms. Furthermore, a business culture that developed in an era of protection rather than competition will change as a more open economy forces more emphasis on productivity.
- The area of labor costs is one of the few in which Ecuador occupies a highly competitive position in the world market.
- Despite a distaste for the salary and compensations formula imposed, management fears that unification of salary may lead to a new wave of compensations being legislated or decreed. Also, some object that salary unification would cause a doubling of money paid for state vocational training through the existing 0.05 percent payroll tax.
- Policies or norms that favor some workers and industries over others can result in rigidities in the market that do not allow relative wages to change enough to provoke a supply response and reallocation. This may result in the creation of a labor elite whose special protection allows them to be paid wages above what the rest of the market would pay for these skills.
- The empirical evidence strongly suggests that labor prices (wages) have been flexible. The total wage bill has been shrinking steadily: by 38 percent of the GDP between 1985 and 1992. The wage differentials that are the empirical artifact also exhibit trends that strongly suggest that wage differences because of interventions are becoming less characteristic of the Ecuadorian labor market. The differential between formal and informal sector workers and public and private workers are significantly less than they were just a few years earlier, having declined from 17 percent to 10 percent between 1989 and 1993 for the largest group of workers—those with some primary education. The inadequate availability of poorly skilled labor at low wages acts as a disincentive towards instituting practices or adopting technologies that require higher skills. The tendency for a greater share of labor to be employed in the lower productivity and lower wage informal sector has implications for earnings and living standards.
- Adjustment to a new competitive regime inevitably has costs. Labor has paid a significant price for this adjustment. With other imminent and important reforms,

especially those like privatizing state enterprises that will result in employment loss and in a further downward pressure on wages (at least temporarily), focusing disproportionate attention on reforming an admittedly problematic labor regime may prove counterproductive to making the economy more competitive.

- Constant rotation of personnel and remaining small to go undetected incur additional costs. However, we must assume that employers are making efficient decisions; that is, they are weighing the costs for recruiting and orienting new employees when deciding how to contract employees. Those who do decide that high turnover or a clandestine operation is the preferable option would tend to be those with low levels of technology and low productivity.
- Chambers and employers both indicate that tax incentives for training are not used. Among the Ecuadorian private sector, training is viewed as an expense instead of an investment, particularly at a low skill level. Whether industry should receive direct tax credits for training their employees is questionable, but a possibility if the tax system were more transparent. Training in and of itself is not considered an incentive. Training for workers and management should increase productivity. Because the incentives are clear for the business whose profits grow from increased production, they should not require additional tax benefits. The worker could be stimulated by bonus pay for producing beyond certain targets.
- The Government sacrifices huge amounts of potential tax income from both the formal and informal private sectors through inefficiency and corruption. Because avoiding paying their full business income taxes is easy, formal sector companies often view this tax savings as an indication of high productivity when investment in worker improvement, for instance, should be the priority for productivity.
- More vigilant enforcement of minimum wage standards and income taxes would remove incentives for remaining in the informal sector and somewhat raise the wages of some low-wage earners without adversely affecting the general competitiveness of the Ecuadorian economy.
- Although perceptions of the costs of the current labor regime are greater than their real impact, or at least less important than other factors alluded to in various parts of this report, some gains are certainly possible through making the norms surrounding labor contracting more transparent. The division of salaries into some 16 components makes planning and estimating more difficult and costly both for employers and for those charged with regulatory and policymaking responsibilities. While this transparency would reduce costs, it is not always labor that is hesitant to institute these reforms. Many of those interviewed were opposed to unifying salaries because such a reform may affect tax incidence and social security contributions. This is just one example of businesses seeking to protect their position in the face of reform.
- The reforms of 1991 have weakened unions in Ecuador. Labor conflicts in terms of strikes have been reduced by 50 percent in just the last four years. Cutbacks in state

enterprises have substantially reduced and will continue to substantially reduce the number of union members; in the private sector, 30 percent of the 350 union members affiliated with the Unified Workers Front (FUT) have been unemployed since 1990.

- An important impediment to foreign investment is the requirement of distributing 15 percent of net profits to employees.
- The current labor regime has different consequences in the four sectors studied in this assessment. In metal products, few managers reported the labor and tax code as a significant obstacle. These firms were, by and large, paying wages above minimum levels. Agroindustrial production is relatively labor intensive and cyclical. The current legislation, as written, presents some difficulties, especially about contracting. However, in practice, firms have traditionally pursued solutions to their need for flexibility at the legal margins of existing legislation. These practices cause unnecessary costs, for example, the constant rotation of workers to avoid paying for benefits more permanent employees. While seasonal contracting is contemplated in current legislation, some incremental reform is possible here. In the textile and apparel sector, the impact of the current labor regime manifests itself in two ways. (1) In those cases where firms are small and production is exclusively for the domestic market, the enforcement of labor norms plays a key role. Clearly, those firms that are complying with current law are at a disadvantage when competing with firms who successfully avoid detection. (2) In the case of somewhat better capitalized firms, the possibility of competing on a regional basis or competing with imports rests more on improvements in management and employee skills than on reforms that would reduce wage costs (wages are already favorable when compared to regional competitors in the sector). The modern production/management strategies in the sector do require, however, additional reforms in terms of contract regimes that allow more flexible use of labor without significantly reducing the wages of employees.
- Considerable political capital would be used to make radical reforms in the labor code, especially when incremental reform can be just as effective.

Recommendations

Continuing labor code, tax, and institutional reforms should be pursued towards achieving the following:

- overall transparency and ease of use, including unifying the complicated base salary plus 16 add-on compensations formula
- new or modified contracting regimes that allow additional types of contracts types that are consistent with a more open economy
- a responsive labor market mechanism

- moderate, not complicated, and well-enforced income tax system that will encourage businesses to pay
- ways to motivate work forces to reach higher levels of productivity
- an income tax alteration that provides positive stimuli to industries for training laborers
- an elimination of the 15 percent after-tax profit-sharing law in exchange for salary concessions or compensation restructuring—such as employee stock ownership—that would more closely unite compensation and productivity

SOW ASSESSMENT OBJECTIVE #4:

Determine the extent to which the apparent adversarial relationship between labor and management in Ecuador constrains firms from being as competitive as they would otherwise be.

Findings and Conclusions

- The often adversarial relationships between labor unions and companies, sometimes with very costly damages (such as General ERCO, WESCO, and La Internacional) relates to pro-labor legislation dating from the 1930s onwards. However, the 1991 reforms have removed some union power, and strikes have decreased by 50 percent between 1991 and 1994. Nevertheless, the private sector—as reflected by its Chambers' declarations—generally believes that labor reform requires annulment and reformulation of the current code that dates from the 1930s and portrays labor-management conflict rather than a collaboration towards mutual ends.
- Since 1990 the membership of the largest union, FUT, has fallen by 30 percent.
- The time frame and structuring of this study did not permit a review of labor's perspectives on this point; however, management personnel indicate that relations between them and workers are generally good.
- To avoid unionization, many companies legally structure themselves into several or numerous companies of less than 30 employees (15 previous to 1991 reforms).
- A specialized study would be required to quantify union-management and nonunionist worker-management relationships' impacts on productivity; however, it is a given that pro-labor legislation has been a key factor in management's frequent treatment of workers as short-term assets in which not to invest highly in training.

Recommendations

- Labor code reforms should promote partnership in labor-management relations, and the code's paternalistic protection of labor should be replaced with a set of minimum protections.
- The management-worker relationship should become less of a top-down authoritarianism and more of a collaboration towards mutual ends as productivity programs become more widely acted upon in national industries.

SOW ASSESSMENT OBJECTIVE #5:

Determine the relevance, responsiveness, and external and internal efficiencies of nonformal technical and managerial training institutions.

Findings and Conclusions

- A few nongovernmental organizations (NGO) provide technical training in leather, metal mechanics, and other fields. Participants pay to attend, and these programs are usually linked to a credit plan. The businesses served are at the microlevel (less than 10 employees) or the very smallest of the small businesses (10 to 50 employees).
- Management training is usually a requirement for small businesses that access loans through NGOs. Between 1986 and 1990, an estimated 42,000 entrepreneurs participated in some form of management training.² This training is usually highly personalized, tailored to sector-specific and/or size-specific firms, and oftentimes directed at the owner.
- Since 1992, SECAP, with funding from the World Bank, is implementing an adult education and training project with one of its objectives to develop basic education and training (functional literacy) programs directed to the poor. The project works primarily with microentrepreneurs and stresses literacy and provides mobile workshops marginal communities. It is projected to reach 20,000 microentrepreneurs and establish 10 community workshops. To date, the project has made no significant impact on training in the nonformal sector.
- There is insufficient data keeping and information gathering capabilities to project future training trends and needs. This was recognized and incorporated in the SECAP/World Bank project in developing graduate tracer studies, and impact evaluations to better respond to labor market demands and to identify collaborative possibilities between the nonformal and industrial sectors.

²Fraser, Peter, Arclis Gomez Alfonso, Miguel Rivarola, Donald Swanson and Fernando Cruz-Villalba, *Ecuador Micro-Enterprise Sector Assessment: Institutional Analysis*, March 1991.

- At SECAP, programs have been designed to try and bring training and employment closer together. However, the programs are isolated from the institution and its perceived mandate. The programs, while attempting to address real training and employment issues, exist within a vacuum in the institute. They do not rectify the major institutional barriers to develop responsive training programs. Many institutional evaluations of SECAP have been carried out over the years. Although institutional weaknesses have been recognized and projects have been designed to address some of the weaknesses, nothing has been done to implement fundamental changes within the institution.

Recommendations

- NGOs and specialized private training institutes may be well situated in certain communities and in specific industrial sectors (such as leather) to undertake technical training on a larger scale. There are efficient NGOs that have a proven track record of training microentrepreneurs in technical areas. Building on this role, they may have more flexibility to liaise with specific industries to determine training needs and supply appropriate training.
- While there is debate on the value of "women-specific" programs, efforts should be made, particularly by NGOs, to train more women in nontraditional fields in programs that include a strong job placement (or self-employment) component.
- For the already employed work force (including self-employed), adult education training could take place through the existing network of nongovernmental organizations. Emphasis would be on participative, adult education and experiential learning methodologies that would encourage workers to reason and work together to develop solutions.
- An in-depth institutional analysis of SECAP needs to be undertaken to identify financial and human resources constraints to its flexibility and modernization and to make recommendations for its future role, among other things, to provide training to the nonformal sector.
- An in-depth institutional analysis of SECAP needs to be undertaken to identify financial and human resource constraints to its flexibility and modernization and make recommendations for its future existence along the following lines:

SOW ASSESSMENT OBJECTIVE #6:

Determine the extent to which reliable, current labor market data exists and is utilized by policy analysts, individuals and employers to allocate training resources.

Findings and Conclusions

- Reliable projections on labor force needs are largely hearsay since no comprehensive study or continual research is undertaken on a regular basis by either the Government or private sector. Since no one carries out routine projections, training is not responsive to real needs; supply and demand are completely divorced from each other.
- Labor market data must be taken as a component of national and international competitiveness and productivity data, not as a "stand alone" item.

Recommendations

- Labor market databases should be developed within a greater informational framework, as recommended under the third point of major findings, conclusions, and recommendations.

SOW ASSESSMENT OBJECTIVE #7:

Determine the degree of, and reasons for gender bias in the workplace.

Findings and Conclusions

- Between 1982 and 1993, women's participation in the economy increased from 24 percent to 40 percent. Women represent 20 percent of the industrial labor force and ABOUT 33 1/3 percent of the informal sector manufacturing labor force. Of the total number of women employed in manufacturing, 58 percent are in textiles, apparel, and leather. Of this number, 18.5 percent are heads of households, higher than any other manufacturing subsector. In the industrial sector, more than 50 percent of the female work force works in the informal sector, thus denying them access to social security, overtime pay, maternity benefits, and other rights as defined by the labor code. In 1989, 16 percent of female manufacturing workers were heads of households, 45 percent were married, and 27 percent lived with their parents. In Ecuador, many separated or divorced women return to their parents' home to live. Thus, almost as many female heads of households as married women are economically active.
- Women hold lower status jobs and have fewer paid benefits than men. In traditional subsectors, particularly in the garment industry, women constitute 80 percent of the work force. However, only 30 percent of women in manufacturing receive social security benefits; whereas 40 percent of the men receive such benefits.
- The wage gap, where women earn less than men for the same work, is evident in the manufacturing sector. Thirty-seven percent of the women earned less than the legal minimum wage in 1989 as compared to 16 percent of the men. In a newspaper article

published during the course of this assessment,³ women in comparable positions as men and with comparable education earn only 86 percent of what men earn. This discrimination is even more marked in lower-skilled jobs, particularly in the informal sector. In sectors such as garment manufacturing, where the majority of the work force is female and most of the industry is informal, women are denied not only maternity benefits, but all other legal benefits.

- Education is often thought to account for gender differences in the demand for labor. However, in Ecuador this does not prove true. Most women are better educated than their male counterparts. In 1990, 33 percent of women had only an elementary school education compared to 45 percent of men. Furthermore, 55 percent of women in manufacturing had attended secondary school compared to 44 percent of men.
- Interviews with industry underlined the extent of discrimination. Rarely allowed to supervise men greatly contributes to women's job immobility. Men and women carrying out the same job are usually placed in different rooms to work. Supervisors feel that men and women are not able to concentrate if they work together.
- Perhaps the largest barrier to significant numbers of women entering the labor force are traditional cultural values and beliefs, such as unmarried women will get married and quit, work mothers should stay home to take care of their children and elderly relatives, women are not capable of working in nontraditional fields, women lack physical strength, women usually have a high rate of absenteeism, and hiring women is expensive because of the high costs of pregnancies and childbearing.
- Opportunities for women to ascend from labor to supervisory jobs are limited because of the belief that men will not take orders from women.

Recommendation

- Training, particularly that by NGOs, should include more women in nontraditional fields in programs that offer a strong job placement (or self-employment) component.

³ *El Comercio*, November 1, 1994.

CHAPTER I INTRODUCTION

PURPOSE, OBJECTIVES, AND ISSUES OF STUDY

Purpose

The purpose presented in the statement of work (SOW) for this study is

...to properly assess the capacity of Ecuador to meet the labor force requirements of an increasingly competitive and integrated global economy by reviewing four key sectors of the economy as well as the national legal, regulatory, and institutional framework affecting employment and technical and managerial training.¹

Objectives

The SOW states seven specific objectives (See Appendix 1 for entire Terms of Reference/Statement of Work, p. 8):

1. assess current and three-year imbalances in technical and management skill supply and demand
2. assess management practices' impact on labor productivity
3. assess labor/tax policy effects on labor force and training
4. assess labor-management relationship and impacts on productivity
5. assess institutions in nonformal technical and management training
6. assess labor market database quality and extent of its use
7. assess gender bias in workplace

Issues

Beyond these seven specific objectives, the study team determined that three underlying, fundamental issues—education, competitiveness and production, and labor databases—conditioned the worker pool's general trainability, perception and projection of training needs, and the various sectors' management responses to training needs:

¹Terms of Reference/Statement of Work, P.8.

Education

Although assessment of formal education was not included in the objectives of the SOW, to the failure of the primary education system to prepare students in "life skills" that facilitate communication and problem solving makes it imperative to address this question. In the most basic of terms, the country's public primary education system releases young people who do not have the ability to work highly productively or to advantageously use further education or training. As a result—and with the USAID/Ecuador mission's encouragement—this study exceeds the SOW by this issue (a) to portray education as a conditioning framework to this study, (b) to highlight education as a major inhibiting factor to increases in productivity and in gainful use of training, and (c) to recommend that the international donor and Government sectors place the highest priority on improving primary education as a *sine qua non* to establishing a productive labor base.

Productivity

The overall perspective of this study should be one that focuses on Ecuador's urgency to prepare itself for insertion into the daily, more competitive, and integrated international economy; labor and supervisory training is a component of competitiveness and productivity. Prior to the opening of the market to outside competition, (aside from international companies), circumventing labor costs and taxes had been the highest priority, not increasing productivity. Within this context, laborers were not widely seen as long-term assets, such that investment in their training was usually minimized. However, Ecuador is now at a politico-economic juncture that permits and encourages a public-private sector alliance to move forward in tandem in the important undertaking of competing within an environment of global competition. Therefore, it is imperative that this study somewhat exceed the confines of a labor force assessment and add its support to the movement that will improve in labor force training and its use.

Labor Databases

Objective 6 of the SOW is to "determine the extent to which reliable, current labor market data exists and is utilized by policy analysts, individuals and employers to allocate training needs." The contextual section of this chapter, the following chapter on the labor market, the chapter on vocational and management training, and the sector-specific chapters indicate that reliable, wide-based, current labor data do not exist and that which does exist is neither well tabulated nor used to allocate training needs. Thus, the potential for supplying well-targeted projections of skills demands (see Objective 1) is curbed, and information provided by manufacturers is not of reliable. Therefore, as in the case of primary education, observations of information deficiencies and their deleterious effects on the economic advancement of the country lead to recommendations to improve this situation.

SCOPE OF REPORT

The SOW, (See Appendix 1, p.10) states,

Because of the broad scope and complexity of this assessment, the LAC Bureau does not expect the contractor to obtain detailed information about the labor force in

Ecuador within the allotted time frame. Realistically, it is anticipated that the contractor will be able to draw some general conclusions and offer appropriate recommendations regarding the state of the labor force in the four targeted sectors (by gender, if possible), the capacity of local institutions to effectively provide entry level and higher level skills training, the propensity and adequacy of employer conducted training, the degree and causes of gender bias in the workplace and in training, the state of labor-management relations, the analysis of work place practices of employers, and the impact of labor and tax laws on the labor market in general.

The greatest limitation in precisely fulfilling this scope is the dearth of reliable and detailed information on employment and on skills and training demand in Ecuador. As the study was of such short duration, time was not available to generate base information. Also, the team was not given access to the raw data from the quarterly household surveys from which to produce significant information. Nevertheless, this study not only complies with these instructions but—in the interest of promoting framework changes governing maximization of labor force potential—goes beyond them by formulating recommendations to deal with constraints on Ecuador from becoming industrially competitive in open-market conditions.

BACKGROUND, CONTEXT, AND FRAMEWORK

Socioeconomic-Political Orientations

From the late 1930s through the late 1980s, Ecuador enacted a flow of social and labor legislation meant to protect the working class. From the early 1960s, import substitution became another pillar of subsequent governments. This was supported by a customs framework that protected Ecuadorian industry against imported products by applying high duties and facilitated local production by exempting or applying low duties on capital goods and raw materials. An additional layer of legislation was added on to stimulate small industry by off setting distortions created to protect the formal sector worker. Accompanying this was an escalating corps of civil servants to "manage" a bewildering maze of laws.

Several notable results of this legislation stacking and bureaucracy bloating bear on the issues of productivity:

- A relatively small number of workers in parastatals and a relatively few industries that fulfilled the laws were protected.
- Parastatals performed in a substandard fashion (contributing to a substandard service and utilities sector).
- The small Ecuadorian market for mainly intermediate and not highly technical finished goods was largely protected against foreign competition.

- Bureaucracy and inefficiency reigned in Government (thereby discouraging small entrepreneurs from entering the formal sector and, in general, detracting from efficiency in the formal sector).
- Inefficiency reigned in industry (as a result of having a protected market, a bureaucratic atmosphere, and resultant shift of focus from one of productively catering to markets to one of circumventing burdensome social and tax regulations).
- Worker training within the private sector became mainly a minimal on-the-job period rather than a productivity investment (workers were usually not kept for long periods, so as to avoid heavy compensation costs).

Public higher education became a highly political arena, causing education in state-run universities to suffer greatly. An open entrance policy is followed, thereby promoting inferior education levels as well as an excess of "professionals" beyond demand or absorptive capacity. Likewise, students who could be educated in technical schools and later have gainful and useful employment are diverted from that option by the open entrance policy. Moreover, a very high percent of the entire education budget (30 percent) is applied to the public universities.

With the growing force for liberalized economies in the 1980s, support grew in Ecuador for the dismantling of the control economy. During the Government of President Rodrigo Borja (1988-1992) the first steps were taken, notably with customs reforms, oblique labor liberalization through the Ley de Maquila, moderate labor reform, and decontrol of prices. However, it was the present Government that came into power with the electoral approval to dedicate itself to the liberalization reform process.

Modernization

The Government of President Sixto Durán-Ballén came to power in mid-1992 under the banner of liberalized reform and under the catch-all name of "modernización." While often taking a "three-steps-forward, two-steps-back" approach in the face of opposing political pressures, the Government has penned an impressive list of reforms into legislation in the past 27 months:

Ley de Casación (Law of Cessation), May 18, 1993

Ley de Mercado de Valores (Stock Market Law), May 28, 1993

Ley de Modernización del Estado, (Law of State Modernization), December 31, 1993

Ley Orgánica de Aduanas (Customs Law), March 10, 1994

Ley General de Instituciones del Sistema Financiero (General Law of Financial Systems Institutions), May 12, 1994

Ley de Desarrollo Agraria, (Agrarian Development Law), June 14, 1994.

The Ley de Modernización del Estado is particularly significant as it not only made operational Consejo Nacional de la Modernización del Estado, the principal tool towards reform implementation, but has provided a wide berth of action that requires no further congressional approval.

Important labor reform, however, has not been promulgated by this Government. The private sector—as reflected by its Chambers' declarations, generally believes that labor reform requires annulment and reformulation of the current code that dates from the 1930s and portrays labor-management conflict rather than collaboration towards mutual ends.

With the attitude and actions of modernization of Government comes an express aperture towards the private sector to be a partner in management of the country. The Government role is to become a facilitator and supervisor rather than continue to be a heavy-handed controller. The reality, however, is that the carrying out of this new paradigm has not marked an accelerated pass. Privatization, customs and port reforms, and debureaucratization have become bogged down by narrow political and interest group pressures. The neighboring countries of Colombia and Peru have sprinted ahead in their macropolitical, economic, and institutional reforms while Ecuador stays mired down in intentions and paper reforms. To establish the enabling environment for Ecuadorian industry to compete on an even playing field in global commercial rivalry, the state must overcome hobbling special interests and proceed to implement policy reforms in areas such as in education, customs, labor, taxation, and social security. These reforms pave the way for industry to dedicate itself to the business of doing business and will encourage a productivity-based focus on enhancing human resources and management-labor relations.

Worker Trainability and Education

The formal education system is neither designed nor budgeted to provide school leavers who are equipped to respond to market needs and demands. Starting at the primary level, the system and curriculum do not encourage the development of responsive, problem-solving students. Moreover, the budget restraints do not permit salaries that attract highly trained or motivated teachers or adequate plant and materials for the young population. Also, teachers in the public schools are mainly products of the deficient public universities.

Secondary education is still heavily directed at preuniversity, liberal arts studies. Nevertheless, most students do not graduate from university, and most of those who graduate earn a degree in a liberal professions, thus causing an oversupply in this field. Despite a healthy growth in technical schools, the vast majority of middle-school students in these institutions study administration majors.

Although the orientation of public university education has been a sociopolitical one, it needs to become an educational one to serve its students and the market demands.

In relation to the purpose of this study, increases in labor productivity will be directly linked to curriculum and budgetary reforms, particularly in basic education. School leavers who can reason deductively, communicate clearly, and resolve problems will automatically be more productive workers than those turned out by the public school system of today. In addition, they will be able to maximize their learning in further education and training. Therefore, this study recommends implementing the projects to develop a better quality of basic education and doubling the budget targeted for education. Furthermore, it recommends that the private sector, through its federations of Chambers of Commerce and Industry (Cámaras de la Producción), be invited to participate in project redesign or amendment and in supervision of education implementation to ensure that public education, particularly at the primary level, produces students with the skills to face life as productive individuals, rather than as learning-handicapped ones.

Private Sector Orientation, Competitiveness, and Productivity

The orientation of the manufacturing private sector has been very much molded by the socioeconomic-political legislation and heavily centralized system of Government from the 1930s through the late 1980s. The overall framework of social protection, Government imposition, and import substitution has cultured a private sector orientation that can be summarized in the word "circumvention." The business of industry, by and large, has not been to make products to meet precise demands nor to operate in a highly productive fashion. As the Ecuadorian market was protected from sophisticated competition from abroad, the real business became to sidestep perceived overprotective labor laws and taxation. Greater profit could be made by avoiding large worker compensation settlements (by not retaining workers for too long) or by avoiding showing profits. Because of the relative ease and the lower cost of avoiding paying their full business income taxes, formal sector companies often view this savings as an indication of "productivity" when worker improvement, for instance, should be the priority for productivity. The shift to a liberalized economy, labor law reforms, and a Government that encourages private sector participation in policy and in actions previously monopolized by the state should cause the manufacturing and commerce sectors to take an orientation of proposing and doing rather than of protesting. One of the focuses will be on the competitiveness and productivity factors that will allow prospering both in the home market and in the international markets. This, in turn, will embrace labor productivity.

In fact, this metamorphosis is already happening under the leadership of the Cámaras de la Producción and nongovernmental organizations (NGOs) particularly the Chambers of Industry and of Commerce in Quito and Guayaquil, FEDEXPOR/COPEX, and the Fundación Ecuador.

The Congreso Nacional de Industriales held in January 1994 was the best example to date of collective private sector adherence to the new modality of aggressive proposal and the promise of implementation in alliance with the state. As a result of this Congress, an important and

comprehensive document² that addresses the entire gamut of restraints to Ecuador's entering forcefully into the mainstream of global industrial competition was created. The committee findings and recommendations for three areas, Human Resource Development; Competitiveness and Productivity (Total Quality); and Constitutional, Labor, and Salarial Legal Environment, are in Appendixes 7, 8, and 9. This report supports the Congress recommendations of close collaboration among the Government, particularly the Ministry of Industries and Commerce; the proponent groups of the private sector; and labor to bring about a wide based competitiveness and productivity transformation that will permit Ecuadorian products to compete at home and abroad.

Information

Databases, in general, in Ecuador are inadequate and are not frequently updated. Labor databases are no different. The recompilation of data to establish training needs and demands is sparse. The raw data collected (such as general census and the quarterly household surveys) are not readily shared with institutions and projects (such as this study) that need the data for purposes not encompassed by the institutions carrying out the surveys. Even the state training institution, SECAP, has a poor record in basing its curriculums and instruction on market research.

With the rapid changes occurring at both macrolevels and operational levels in Ecuador, employment and skills demands research needs to be carried out frequently because information ages quickly. As an immediate action, continuous collectors of survey data (such as Instituto de Estadios y Censos, Consejo Nacional de Desarrollo, and Banco Central) should provide greater disaggregation of information and develop information sorts and grids to serve more needs. When this is not possible, they should provide freer access to raw data so that users may produce specific information. However, to treat the overall problem at its root, a mixed sector "Consejo Superior de la Informática" (Information and Database Commission) should be formed to define who needs what information for what purposes, with what frequency, and at what level of detail and to draw up a practical structure and plan to collect, tabulate, correlate, and distribute the information with a minimum of collection overlap and a maximum of timeliness.

In labor requirements projections, two levels of database development should be considered: one that relates to the specific field and one that incorporates and correlates the first level, with the wider issue of international competition. Determining of an apolitical institution to provide the service can be a responsibility of the "Consejo Superior de la Informática." Certainly, one or more proven private sector firms should be contracted to design or redesign the assigned institution not only to formulate a nationwide labor profile and industrial skills requirements study model but also to set the basis for competition and productivity measurement models that will interlock with those used in other nations. The study team is proposing a key effort to

²"Memorias: Congreso Nacional de Industriales, Enero 12-13-14 de 1994," Federación Nacional de Cámaras de Industrias y Cámara de Industriales de Pichincha.

put Ecuador into the mainstream of the information age so that all institutions and industries will be able to make timely and valid decisions that will aid the country to being on a equal footing with commercially competing countries.

TARGET AUDIENCES

This study has been financed by USAID/LAC Bureau as a contribution to the evolution of an environment that will enable Ecuador to compete in today's increasingly global economy. As such, this study is directed to people and institutions that can influence necessary transformation—be they members of central and provincial Government, Congress, autonomous agencies, the education system, industry, organized labor, or NGOs. In particular, it is anticipated that Fundación Ecuador will play a key role in incorporating the recommendations of this report into its agenda, in refining them, and in being a principal promotor and "honest broker" of them with these target audiences.

METHODOLOGY OF STUDY

Prior to the start of the consultancy, the team leader prepared a team work plan and a summary of the TOR/SOW (see Appendixes 2 and 3). The collaborating secretary started making appointments for initial interviews. Background documents were gathered by the local economist, the team leader, AED, and USAID.

Four key sectors had been identified by USAID/LAC to be reviewed: namely, food processing, metals fabrication, textile and apparel, and finished leather goods. Because of their linkage and because one consultant was contracted for the last two sectors, they were joined to form one category called textiles, clothing apparel and leather apparel and accessories. Because of the time constraints, three product lines were omitted: seafood, shoes, and leather furniture.

The study was planned by USAID/LAC as an intensive, rapid assessment to be carried out in three weeks, October 24, 1994, through November 12, 1994. Therefore, day one was a teamwork one in which the dynamic was established to maintain information transfer and consistency among the three subteams: "macro," "training," and "micro" (see Appendix 3). After group review of the TOR/SOW, interview instruments were prepared by the three subteams.

Principal interviewing was in Quito and Guayaquil. The team worked from a rented project office and met frequently to coordinate work. Meetings and phone contact with various interested parties in USAID/Ecuador were continuously maintained.

STUDY TEAM COMPOSITION

The local USAID liaison was Guillermo Jáuregui, the Mission economist, and the AED liaison in Washington was Helen Wilson Chason, senior project officer, who in turn maintained

contact with USAID's LAC Bureau. The study team was composed of seven consultants: a team leader, an international labor economist, a local economist, a vocational and management training expert, and three sector experts.

Michael J. Bolaños, textiles and clothing apparel and leather apparel and finished products expert, is an engineering graduate and a business administration postgraduate with 20 years industrial and consulting experience. He is a productivity expert and writes related software.

Joseph F. Burke, team leader, is a graduate in business administration and in international trade and pursued a career in marketing, sales management, and export in Latin America and Africa before entering the field of development consultancies in 1983. Since that time he has carried out a variety of short- and long-term consultancies in management, marketing and export advisories, trade policy, project management and design, and project evaluations.

Anthony Dewees, international labor economist, is a Ph.D. candidate in education at Florida State University. His area of specialization is the economics of education and human resource development. He has completed a number of studies on issues of education and training policies and practices in Latin America and Asia including the financing of education and training programs, analysis of labor markets, and nonformal programs for child workers and street children.

Marcy G. Kelley, vocational and management expert, is an independent consultant specializing in training programs for small businesses, with an emphasis on gender issues. She has more than 15 years experience in long- and short-term consulting assignments in Latin American and African countries as well as in the United States with international contractors. She majored in business administration and holds a master's degree in education and public administration.

Roberto Posso, local economist, is a graduate in economics and has pursued a career in economic development, external debt analysis, and international trade. He has participated in several labor conferences. Since retiring from the Central Bank of Ecuador in 1989, he has carried out numerous short-term consultancies in financial and management areas. He is a professor at the Catholic University and San Francisco University in Quito.

Martyn F. Walker, metal fabrications expert, is a business administration graduate with 20 years experience as a systems analyst and as a consultant in company performance improvement.

CHAPTER II THE LABOR MARKET IN ECUADOR

BACKGROUND AND OVERVIEW

The Role of the Labor Market in Economic Development

Dependable and rapid communications allow capital to flow across borders, thereby permitting different stages of production processes to be located in their optimal location any given time, regardless of the boundaries of national economies. An increasing number of products can now be delivered anywhere, regardless of where they were produced. These developments have tended to erode comparative advantages based on the natural resources located in a particular nation and made locally produced goods increasingly subject to price and quality competition from global competition.

Many developing and industrialized countries are adjusting to this new competitive regime. Changes in relative prices, the growth of new industries, and the withering of others are visible manifestations of this adjustment, as are efforts to create international norms for the competition, such as the unification of European economies into the European Union, General Agreement on Trade and Tariffs (GATT), the North American Free Trade Agreement, MercoSur, and Pacto Andino.

While all nations are adjusting in some sense to these new demands, in some economies formal adjustment programs are being implemented to bring internal incentives in line with the global market. One key element in this adjustment process, whether it be solely the liberalization of trade or liberalization combined with a formal adjustment program, is the reallocation of productive resources (capital and labor) within national economies. When capital is relocated, orthodox adjustment policies involve the removal of subsidies that distort the cost of and returns to capital, allowing investment to seek its highest return in the new, less restricted market.

Adjustment also requires the reallocation of labor when new norms and new competition result in a changing profile of national production. Labor previously dedicated to production of goods and services being replied by external competition must shift to activities where national industries are competitive with external competition either within the national economy or as tradable exports. The collapse of centrally planned economies and the failure of "manpower planning" to reallocate labor in market economies suggest the difficulties in attempting to reallocate labor through institutional means. For this reason, orthodox adjustment programs attempt to reallocate labor through the labor market.

The labor market allocates labor through prices. Shifts in the demand for a specific type of labor relative to the supply of that type of labor result in higher or lower wages.

In practice, there are many obstacles to this efficient reallocation of labor. Typically, the market for labor is considered an "imperfect" market, and institutional interventions are seen as warranted on efficiency and equity grounds. Regulations about minimum wages and job stability are often implemented as a way to shift some of the shocks of the inevitable and

constant changes in the market from individuals to the larger community. These interventions can contribute to the efficiency of the labor market by fostering a social consensus that allows the labor market to function without abrupt and serious disruptions provoked by conflicts between workers and employers.

In some cases, institutional interventions can be obstacles to the efficient allocation of labor. Policies or norms that favor some workers and industries over others can result in market "rigidities" that do not allow relative wages to change enough to provoke a supply response and reallocation. These market rigidities may result in the creation of a "labor elite"; members of the elitist group would have special protection that allows them to be paid wages above what the rest of the market would pay for their skills.

Institutional interventions that have been designed to moderate market shocks to labor are not the only imperfections in the labor market. Discrimination on the basis of gender, race, culture, etc., as well as collusion, by employers with monopoly power, also imply efficiency losses and misallocation of labor. In addition imperfections in other markets (capital market and goods market) sometimes result in the misallocation of labor and efficiency losses.

Analyzing the Labor Market in Ecuador: Purpose and Scope

This document analyzes human resource development issues in the economy at large and the opportunities and constraints that human resources present for the development of four sectors in the Ecuadorian economy. However, human resources are not the only obstacles to general economic growth or the development of the four target sectors. By necessity, the analysis must include the principal trends in the Ecuadorian economy and specific nonhuman resource constraints as well as the functioning of the labor market.

THE MARKET FOR LABOR IN ECUADOR

General Trends in Output in the Ecuadorian Economy

Table II.1 displays real annual growth in the Gross Domestic Product (GDP) by sector (1988-1993). Agriculture has grown steadily at about 5 percent per year. Petroleum and mining has shown a great deal of volatility primarily in response to volatility in world petroleum prices. Manufacturing has remained steady with some modest growth since 1990. There has been little growth in services over time. However, non-Government services have grown while Government services have declined since 1989.¹

Table II.2 shows the distribution of the GDP among the economic sectors. The division of total GDP among the sectors has remained fairly constant except for the mining and petroleum sector. Both manufacturing and trade have become more important components of the Ecuadorian economy than in 1980.

¹ Economic Commission for Latin America and the Caribbean; *Statistical Yearbook*; 1992

Nonhuman Resource Constraints and Obstacles

Before examining the opportunities and constraints for development associated with human resource, it is necessary to briefly highlight some additional phenomena that have an impact on economic development in Ecuador.

One issue that acts as an obstacle to the development of the Ecuadorian economy is the lack of financial resources and infrastructure. Ecuador's low internal savings rate acts as a constraint on business expansion by constraining the amount of capital available on the market. One factor in the relatively low level of internal savings are passive interest rates (rates for depositors) that in recent years have been negative in real terms. The low level of foreign investment, when compared to other Latin American countries, is a further constraint on available capital.

Those funds that are available in Ecuador have been predominately short-term funds. In 1993, just 13 percent of private sector loans were medium- and long-term loans. An alternative method of generating capital is a stock market. However, the stock market in Ecuador is very small, representing under 2 percent of GDP, compared to 20 percent of GDP represented by the market in Colombia.

Another factor to be developed more fully in other parts of this report is the dependency of private enterprise on state support. The previous development policies resulted in a private sector heavily dependent on state concessions of credit at negative real interest rates, protection from imports, and other subsidies. These policies provided incentives for firms to engage in rent-seeking behavior rather than in productivity as sources of revenues. The shift to open-market development strategies has exposed a private sector with low productivity and technology.

Trends in the Labor Market in Ecuador

Trends in Aggregate Employment

Table II.3 summarizes changes in aggregate levels of employment in Ecuador. The economically active population increased by over 500 thousand between 1989 and 1993. The increase, approximately evenly divided between males and females, is driven primarily by population increases as global participation rates have remained fairly stable.

Aggregate employment grew about 20 percent, with women registering an increase of some 28 percent while the increase for men was about 17 percent. Modern sector² employment grew at 11 percent while informal employment increased by 28 percent. Of the total gain in aggregate employment, excluding domestic service and agriculture (369,429), 70 percent was added employment in the informal sector while 30 percent was added modern sector employment.

² The Census and Statistics Institute definition of modern sector employment is employment in a firm with six or more employees or who are owner/operators of smaller firms as well as self-employed professionals and technicians. Informal sector includes those in firms with five or fewer employees as well as nontechnical, nonprofessional self-employed employees.

While rates of open unemployment have risen insignificantly, population increases have resulted in an additional 53,000 unemployed persons between 1989 and 1992. Over 50 percent of this increase is female, as rates of unemployment for females have averaged about twice that for men. In developing countries with little social support for the unemployed, few individuals have the option of remaining unemployed for long. For this reason, levels of underemployment³ are better indicators of trends in the labor market than are rates of unemployment. Since 1989, the number of underemployed has increased by almost 200 thousand. While the number of underemployed men increased 16 percent, the number of women underemployed increased 23 percent.

Trends in Employment by Economic Sector

Table II.4 indicates the distribution of employed persons by economic sector. The economic sectors with the greatest levels of employment are wholesale/retail trade, hotels and restaurants, and services, including Government services. The next largest sector in terms of aggregate employment is the manufacturing sector.

The last column in Table II.4 indicates the percentage increase or decrease in total employment by sector between 1990 and 1993. The total number of employed persons increased 14 percent in the time period. Employment in agriculture; petroleum and mining wholesale/retail trade, hotels, and restaurants; and transportation, storage and communication, increased at rates greater than did the rate of total employment. Employment in manufacturing; electricity, gas, and water; construction finance, insurance, and real estate, and services grew at rates slower than total employment growth.

Trends in Employment and Education

Table II.5 shows the distribution of the economically active population by level of education and economic sector.

As expected, levels of education and economic sector are related. Only 18 percent of those with no education are employed in the formal sector. At the other end of the continuum, almost 80 percent of those with some higher education work in the formal sector. At lower educational levels (none and primary), men are twice as likely to work in the formal sector as are women.

Employment Trends in Targeted Sectors

Table II.6 presents both growth in employment and growth in output for the four targeted sectors.⁴ The data source cited in Table II.6 shows employment growing in food processing 28 percent and employment in metal products and machinery growing 12 percent between

³ Underemployment is defined as working less than 40 hours in the last week and desiring to work more hours or working 40 hours or more and having earnings less than the equivalent of the *minimum wage* for that activity.

⁴ Because the limitations made it impossible to acquire data that separated leather products from other clothing, both sectors are combined into one.

1990 and 1992. Employment growth in textiles and clothing and leather products fell about 6 percent. Using a crude index of productivity,⁵ only metal products and machinery demonstrated increasing productivity.

Trend in the Total Wage Bill⁶

Table II.7 displays the changes in the total wage bill as expressed as a percentage of GDP. Total wages as a percentage of GDP have fallen 60 percent since 1980 and 38 percent since 1985. This decline is a product both of falling real wages and the increasing size of the informal sector where complete information on this sector is not captured in national accounts.

Trend in Minimum Wage

Additional evidence of the erosion of real wages is the trend in mandated minimum wages. Table II.8 displays changes in the minimum wage (including supplemental components) as an index using the January 1986 total as a base.

Minimum wage totals fell about 53 percent between January 1986 and January 1992. Since 1992 real minimum wages have recovered 30 percent of their lost purchasing power.

Wages and Education

Table II.9 displays nominal monthly wages by levels of education and by employment sector and the percentage difference in average wages between adjacent educational levels. For example, in 1989 average monthly earnings for those with some primary education in the modern sector was 63 percent greater than for modern sector workers with no education. In 1993, the difference in average monthly earnings between those two groups of workers was 22 percent.

Table II.9 indicates a trend of lower returns to education in the modern sector at low levels of education. While workers with some primary education earned 63 percent more than those with no education in 1989, they earned just 22 percent more in 1993. At higher levels of education, the differences in average monthly earnings have increased. In the informal sector, the differences in average monthly earnings remained fairly stable.

⁵total output in constant terms (including intermediate goods)/total employment

⁶There are two important notes of caution in interpreting all of the calculations in the section on earnings and wages. Because individual level data was not available, mean wages by different sectors, educational level, etc., were used. While some of the differences in these mean wage levels are consistent with other indications of movements and trends in wages, these differences in mean wages cannot be used to estimate the magnitude of those trends since the composition of the groups is likely to have changed over time. For example, with modern sector employment shrinking, workers who are more productive would be forced into the informal sector and, thus, rise productivity and average earnings for the informal sector. The adjustment of nominal wage levels for inflation is less accurate in periods of very high inflation such as those experienced recently in Ecuador.

Wages and Sector of Employment

Table II.10 shows the ratio of informal to modern sector wages by level of education in 1989 and 1993.

In 1989, the average monthly earnings of informal sector employees with no education were 88 percent of average monthly earnings of modern sector employees with no education. At the educational level with largest number of workers (some primary education), the ratio of informal to modern sector wages has risen to 90 percent from 73 percent in 1989.

Informal sector economic activity is notoriously hard (or expensive) to measure and track. Although using firm size as a proxy for informal activity is a crude approximation, the increasing number of underemployed persons indicate that a substantial number of those working in the informal sector are not enjoying the benefits of current labor norms.

The Labor Code and Associated Legislation

The labor market in Ecuador is regulated by the national constitution, the labor code (Codigo de Trabajo), executive decrees, and social security legislation and regulations. The principal regulator of private sector employment, the labor code, has remained relatively stable since its implementation in 1938. The most recent modifications of the code were implemented in November of 1991.

The labor code regulates private sector employment in four areas:

- individual contracts
- collective contracts
- work hazards and occupational safety
- the formation of unions and the processes of conflict resolution

Clauses and articles regulating individual contracts include measures that set standards for the work week (40 hours) and obligatory holidays; guarantee equal pay for equal work with regard to gender, race, religion and nationality; and define and classify different individual contract modalities and forms of remuneration.

According to the code, remuneration can be in the form sueldo (professional/administrative occupations monthly remuneration), salario (monthly total for technical and general occupations), jornal (daily wage often used in construction and agriculture), en participation (commission), or mixta (some basic salary plus commission). In any form of remuneration, the total monthly amount received by the worker must not be less than the minimum wage for that activity (Salario Minimo Vital).

Ecuador has three different types of individual contracts. (1) The "Prueba" contract allows the employer to enter into a one-time contract for a 90-day trial period with an employee. This contract can be terminated by the employer without liability for severance and other separation benefits at the end of the 90-day period. If the contract is not terminated at the end of the trial period, then that contract is guaranteed for one year from the original contract date. One year is the shortest legal contract established in the labor code. (2)

Normal individual contracts are for a minimum of one year and a maximum of two years. (3) Contracts extending beyond two years are considered "indefinite" contracts.

The reforms of November 1991 allow and regulate additional types of individual contracts. With these reforms, employers were permitted to offer "contratos eventuales," "contratos ocasionales," or, "contratos de temporada." The "contratos eventuales" permit the employer to hire workers for up to six months per year to complete tasks not considered as part of the normal operation of the firm. "Contratos Ocasionales" can be used by firms to hire workers for up to 30 days for the same class of tasks as those contemplated in "contratos eventuales." Only those workers with "contratos eventuales" receive separation benefits, which are calculated proportionately by fraction of the year worked. The "contratos de temporada" permit the employer to hire a worker to complete one specific task and do not have time limits.

The labor code stipulates that wages are determined freely, as long as they are equal to or greater than the minimum wage. In addition to the numerous components of regular remuneration, the labor code also requires employers to share 15 percent of yearly after-tax profits with their employees.

One of the more controversial aspects of the labor code is the regulation of payments and benefits upon separation. In the case of voluntary separation on the part of the employee or justifiable termination by the employer, the employee must give 15 days notice and the employer one month. The employee is entitled to a sum equal to 25 percent of the last monthly salary (including appropriate nonsalary sums) for each year of service with the same firm or employer.

Employees fired in violation of the code are entitled to indemnity on the part of the employer. Table II.11 indicates the scale for indemnity both before and after the 1991 reforms. The amount of the indemnity is calculated on the basis of the most recent salary and any part of a year is considered an entire year.

The obligation of an employee by the employer to change occupation may also be considered a termination in violation of the code⁷ if the employee makes a formal complaint within 60 days of the transfer. This norm applies even if the remuneration for the new position is equivalent to the prior placement.

The 1991 reforms also stipulated that indemnity for termination in violation of collective contracts or the labor code can be set at amounts greater than established in the code. However, when conflicts arise over payments, the arbitration and conciliation tribunals cannot grant amounts greater than those established in the code.

The labor code also stipulates a separate set of regulations for elected representatives of labor unions. Employers who terminate elected members of organized labor unions are required to pay 12 months salary in indemnity, half to the union and half to the individual. The code also allows the individual to continue in his/her elected position until the end of the current term.

⁷fired without consent of employee or without 30-day prior notice.

Pensions and retirement are included in the chapter of the code that regulates individual contracts. While pensions are primarily covered by the social security legislation the Labor Code stipulates a "jubilacion patronal" (employer-funded pension) for those workers with 25 years consecutive service with the same firm or employer. The calculation of the amount follows the same regulations as those established in the social security legislation regarding coefficient, age, and time of service and is complementary to the social security pension. The amount cannot be higher than the average salary received by the employee during his/her last year of work or lower than the minimum salary.

Collective agreements and constitution of employer associations and unions are also regulated by the labor code. These contracts, which typically include areas such as remuneration, work rules, and vacations, can be written for fixed periods

There are several requirements for the formation of a "Comite de Empresa" (firm-based union usually affiliated with larger umbrella unions):

- The committee can be formed by no less than 30 employees (before November 1991 the requirement was 15).
- The statutes of the committee must be approved and registered with the Office of Employment (Direccion General del Trabajo) in the Ministry of Labor and Human resources.
- The committee must also represent the different productive activities of the firm.
- The board of directors must be citizens of Ecuador and of legal age.

The law foresees the right to strike as long as the employees follow all the conditions established in the code. Only the committee of the firm or the absolute majority of workers can decide to go on strike. When there is a labor conflict, the workers must present a "list of petitions" to the authorities who must mediate to reach an agreement and avoid a dispute. Strike actions on the part of unions are permitted under the following conditions:⁸

- The employer does not answer or answers negatively to a formal petition on the part of the employees
- After receiving the petition, the employer dismisses or terminates one or more workers, except in the case when those workers have committed violent acts against the installations or the employer
- The employer fails to convene a conciliation and arbitration tribunal not attributable actions of the employees
- The employer fails to appear for arbitration and conciliation (reform introduced in 1991)

⁸ art. 490

- The employer does not pronounce findings within three days of the hearing (reform introduced in 1991)
- The employer fails to appear on two consecutive occasions (if there were at least two working days between each occasion and the employees' representatives were there) before officials from the Office of Labor Mediation (reform introduced in 1991)
- The employer attempts to remove machinery with the intention of dismantling the plant. (reform introduced in 1991).

During a strike, the employees can remain in the plant under the supervision of the police, and the employer is prohibited from renewing production with substitute employees. The reforms of 1991 expressly prohibit the dismantling of machinery by employees and makes them legally responsible for any damages to the work site during the strike.

Employment in the public sector is regulated by both the Labor Code and the Civil Service and Administrative Career Law. The application of these norms depends on the occupational status of public employees, but inconsistencies and aberrations are common.

Taxes and Other Mandatory Contributions

The labor code requires businesses to share 15 per cent of after-tax profits with employees. This sum is distributed as 10 percent of after-tax profits to workers (with a limit of 80 minimum wages) and 5 percent in proportion to the amount of "dependents" (with the limit of 40 minimum wages).

Business taxes in Ecuador are set at 25 percent of net profits. This rate is a flat rate applying to all amounts of profits and applied equally to foreign and domestic firms. While the particular rates must be seen in comparison to rates in other markets, the structure of the taxes is neutral in regards to employment and training.

The Labor Market Information System

The necessary information for making investment decisions about the training of workers is not coordinated by a single entity. Various important components of the necessary information are located in different institutions and their respective publications and databases. In each case, the information and publications are tailored to that particular institution's needs and frequently cannot meet the specific needs of other important users.

The principal public sector institutions that collect information about levels of employment, remuneration, levels of education, and training are CONADE, Census and Statistics Institute (Instituto de Estadística y Censos/INEC), the Ministry of Labor and Human Resources, and the Ecuadorian Professional Training Service (Servicio Ecuatoriano de Capacitación Profesional (SECAP)).

The publications produced at regular intervals include the "Encuestas de Coyuntura" a short term analysis of principal trends in employment, unemployment, and remuneration, produced

by CONADE with the Ecuadorian Central Bank. INEC is another public institution that elaborates statistic information related to the characteristics of the population, such as employment, unemployment, underemployment, education levels, occupation according to production areas, contracts. The problem with INEC is that it takes a long time to publish the research results and, therefore, the information they present is outdated and can be of little use. Until mid 1993, the Instituto Nacional de Empleo was in charge of carrying out the ENCUESTA PERMANENTE DE HOGARES, which provided information about urban population, but now INEC is in charge of doing it. Hopefully, the results will be published no more than 6 months after the surveys.

SECAP also produces information for internal analysis of training needs. At the time of this report, SECAP was involved in developing a living standards survey with technical assistance and financing of the World Bank.

FINDINGS AND RECOMMENDATIONS

When functioning efficiently, the labor market allocates labor to its most productive use through the mechanism of price signals. These prices allow firms to produce a specific quality of good at the lowest cost. Prices also provide individuals good information about the relative benefits and opportunity costs of investments in their own productive assets (human capital).

When the goods market experiences change in demand or when the capital market changes the relative return on different kinds of investments, the labor market is the mechanism for shifting and reallocating labor. If the labor market cannot send the new signals (new relative prices for different activities), then labor does not reallocate efficiently, and the economy does not adapt well to changing conditions.

This inability to reallocate labor efficiently can be the result of interventions in the labor market, and imperfections in other markets. In Ecuador the labor market has been examined by focusing on trends in employment and remuneration, labor market institutions, and imperfections that may adversely affect the ability of the labor market to efficiently reallocate labor.

Functioning of the Labor Market in Ecuador

Participation rates have remained relatively stable, and women's participation rates remain almost 30 percentage points less than those for men. Much of the growth in the number of employed persons is informal sector employment, where productivity and wages are lower. Of the total gain in aggregate employment, excluding domestic service and agriculture, 70 percent was added employment in the informal sector while 30 percent employment was added in the modern sector between 1989 and 1992.

Earnings have deteriorated in Ecuador. Increasing numbers of workers are underemployed: they are working at less than full-time and desire to work full-time, or they are working full-time with earnings less than the established minimums. Some of this deterioration in earnings can be explained by the increasing number of informal workers whose activities and earnings are not effectively monitored for compliance with legislated norms. One of the frequently

posited explanations for this kind of explosion of informality is a labor regime that protects formal sector employees from the competitive market and results in a rationing of formal sector jobs with those individuals "rationed out" of the formal sector seeking unprotected employment in the informal sector. However, in Ecuador, wage differentials, which are the empirical artifacts of this kind of nonmarket rationing, between these two sectors, have been declining. This differential among the largest group of workers, those with some primary education, has declined from 17 percent to 10 percent in just four years (1989-1993). Given the way formal and informal are defined (by firm size), it is likely that this difference is even smaller because larger firms tend to be better capitalized and more productive.

The tendency for a greater share of labor to be employed in the lower productivity and lower wage informal sector has implications for earnings and living standards. The total wage bill as a percentage of the GDP fell 38 percent between 1985 and 1992. The effects of increasing informality is especially troublesome for women. At lower levels of education (no education or some primary), women are half as likely as men to have modern sector employment.⁹

The empirical evidence strongly suggests that labor prices (wages) have been flexible. The total wage bill has been shrinking steadily as a percentage of the GDP. The wage differentials that are the empirical artifacts of rigidities in the labor market have also exhibited trends that strongly suggest that wage differences because of institutions interventions are becoming less characteristic of the Ecuadorian labor market. Wage differential between formal and informal sector workers and public and private workers are significantly smaller than they were just a few years earlier.

Adjustment to a new competitive regime inevitably has costs. Labor has paid a significant price for this adjustment. Other imminent and important reforms, especially those such as privatizing state enterprises that will result in employment loss and further downward pressure on wages (at least temporarily) and focusing disproportionate attention on reforming an admittedly problematic labor regime, may prove counterproductive to making the economy more competitive.

Public policy that attacks the root causes of poverty must address both the quality of education and the quality of jobs being created. Improving educational quality involves both the rationalization of the system and a reorientation of the content of the system to produce basic knowledge and critical thinking skills that can be refined and oriented towards specific jobs and occupations several times over a working life.

It is not enough, however, just to concentrate on the supply of labor. Without attention to demand in terms of how many and what kinds of jobs are available, an educational reform will simply not be successful. Children and their families make rational decisions. They will only sacrifice the foregone income implied by remaining in school if they see schooling has a clear benefit to their future working life.

⁹ Even when differences in experience and education are accounted for using multivariate analysis, women earned between 14 and 18 per cent less than men. See Morrison, A. "Are Institutions or Economic Rents Responsible for Interindustry Wage Differentials?" *World Development* Vol. 22, n.3 pp.355-368;1994.

Creating better and more jobs is not an easy matter. Evidence from the newly industrialized countries¹⁰ suggests that the state can and must play an important role in using macroeconomic policy, fiscal policy, and other interventions at its command to promote higher-skill and higher-value added employment.

A state cannot exercise its options in promoting better employment if it is too weak or lacks the transparency necessary to win the confidence of all sectors of the economy. A state that allows interventions to be used to subsidize private interests over public interests will ultimately fail all. Therefore, political and institutional reform to make the Ecuadorian state more democratic and transparent will play a key role in providing better opportunities for its citizens.

Labor Market Institutions

Conventional wisdom among some sectors in Ecuador is that rigidities in the labor market because of labor market institutions are the principal cause of rising levels of informal employment. The principal component of the labor market institutions in Ecuador is a labor code seen by some as overly "protectionist" and decidedly pro labor. The empirical evidence of rigidities imposed by such a code would be significantly higher wages in the most protected sectors (in Ecuador, modern sector industry and public sector employment). However, even as early as 1990, modern sector wages were falling relative to informal sector wages as were public sector wages relative to private sector wages.¹¹ Between 1990 and 1993 the differences in mean wages between modern and informal sector employment for workers with some primary education (50 percent of the entire informal sector work force) fell 14 percent. In general, real wages in Ecuador have proved to be quite flexible (downward) despite popular perceptions about the labor code.

The labor code is also perceived as adding unnecessary labor costs by its provisions for stability in employment. Anecdotal evidence from employer interviews indicates that employers feel they are forced either to carry unneeded employees or to resort to other methods to achieve needed flexibility in the size of the work force. These methods include the use of "prueba" contracts, which allow the employer to terminate employment in 90 days without any separation benefits liability. Since 1991, reforms have also allowed other types of short-term contracts with no or reduced liability for severance benefits. While these contract regimes allow increased flexibility, they incur some costs as new employees must constantly be oriented or trained as well as recruited. In some cases, the employer operates clandestinely to avoid any of the stability provisions.

Constant rotation of personnel and remaining small to go undetected incur additional costs. However, employers are probably making efficient decisions; that is, they are weighing the costs implied in recruiting and orienting new employees when deciding how to contract employees. Those who do decide that high turnover or clandestine operation is the preferable option would tend to be those with low levels of technology and low productivity. To assert

¹⁰ South Korea, Taiwan, etc.

¹¹ Hatchette, D and Franklin, D. *Employment and Incomes in Ecuador: A Macroeconomic Context*. USAID-Ecuador; 1990

that it is only the labor code stability provisions that cause these employers to use these methods ignores a number of other explanations about the incentives for continuing a low technology, low productivity production process where the only productivity gains possible are through reduction in wages.

The collective contract provisions of the code are also mentioned (possibly more by economists than entrepreneurs) as producing rigidities in the labor market. By definition, unions do provide a wage premium over nonunion labor (otherwise, there would be no need for a union). While we were not able to find comparable studies in Ecuador, a number of studies in developed economies have shown that, in some cases, the additional costs of union wages are offset by having more reliable and better trained personnel.

In any case, the reforms of 1991 have weakened unions in Ecuador. Labor conflicts in terms of strikes have been reduced by 50 percent in just the last four years. Decreases in state enterprises have reduced and will substantially reduce the number of union members, and in the private sector 30 percent of the 350 union members affiliated with the Unified Workers Front have been left without employment just since 1990.

Strategies to avoid possible unionization, such as splitting up larger firms into ghost companies of less than 30 employees, the legal minimum for unionization, and informal/clandestine operation, add costs to production. It may be, however, that public perceptions of unions remain from when the Ecuadorian economy was relatively closed to outside competition and when monopolies were able to share rents with their employees. The generous wages and prolabor stability provisions of collective agreements were based on the ability of firms to pass along those costs to consumers in the closed market. To this point, much of the cost of opening the market has been borne by labor.

Although perceptions of the costs of the current labor regime are greater than their real impact, or at least less important than other factors alluded to in various parts of this report, some gains are certainly possible through making the norms surrounding labor contracting more transparent. The division of salaries into some 16 components makes planning and estimating more difficult and costly both for employers and for those charged with regulatory and policy-making responsibilities.

While this transparency would reduce costs, it is not always labor that is hesitant to institute these reforms. Many businesses seek to protect their position in the face of reform. For example, a good number of firms interviewed were opposed to unifying salaries because of the implication that such a reform may have on tax incidence and social security contributions.

Perhaps the most important impediment to foreign investment is the requirement of distributing 15 percent of net profits to employees. While a number of interviewees suggested that it was possible for local firms to maintain separate accounts and manipulate the system to reduce their liability for this payment, foreign firms without this experience in the local system see this 15 percent as a direct tax on their profits.

The current labor regime has different consequences in the four sectors studied in this assessment. In metal products, few managers reported the labor and tax code as a significant

obstacle. These firms were, by and large, paying wages above minimum levels. The sector is, however, composed of firms that are fundamentally different. The large auto plants respond less to local labor supply and prices than to strategic decisions about where to manufacture the given mix of vehicles available in the region.

Agroindustrial production is relatively labor intensive and cyclical. The current legislation as written presents some difficulties, especially in regards to contracting. However, in practice, firms have been traditionally pursued solutions to their need or flexibility at the legal margins of existing legislation. The practices imply unnecessary costs, such as the constant rotation of workers to avoid the benefits of more permanent employees. While seasonal contracting is contemplated in current legislation, some incremental reform is possible.

In the textile and apparel sector, the impact of the current labor regime manifests itself in two ways. (1) In firms that are small and production is exclusively for the domestic market, the enforcement of labor norms plays a key role. Clearly, those firms that are complying with current law are at a disadvantage when competing with firms who successfully avoid detection. (2) In somewhat better capitalized firms, the possibility of competing on a regional basis or competing with imports rests more on improvements in management and employee skills than on reforms that would reduce wage costs (wages are already favorable when compared to regional competitors in the sector). The modern production/management strategies in the sector do require, however, additional reforms in terms of contract regimes that allow more flexible use of labor without significantly reducing the wages of employees.

Considerable political capital would be necessary to make radical reforms in the labor code, especially when incremental reform can be just as effective. Organized labor and workers, in general, have already borne a great cost in the modernization of the Ecuadorian economy. Until recently, real wages were on a precipitous decline, and union membership and power have been greatly weakened in the last five years. Radical reforms that would have the impact of reducing the cost of labor through lower wages would be unacceptable.

Although both labor and management could realize gains by making the system more transparent, it is business owners who are opposed to reforms such as the unification of salaries. A business culture that developed in an era of protection rather than competition will change as a more open economy forces more emphasis on productivity.

Our recommendation is in line with a previous study that suggests "chipping away" at inefficiencies in labor market institutions rather than radical change. The cost is too high for such change, and the institutions themselves represent less of a constraint to development than other macroeconomic factors and issues about business practices. The focus of incremental reform should be on liberalizing contracting regimes to allow additional contract types that are more consistent with a more open economy. These would include the consideration of contracts based on hourly wages and the use of part-time employees. It should, however, be emphasized that the benefits to these modifications could be overwhelmed by other management practices issues cited in this report.

The stipulation of sharing of 15 percent of after-tax profits is another area where reform could have a marginal effect on increasing foreign investment and could establish a more

transparent climate. Labor's perception (which is generally recognized in the business community) is that businesses manipulate their accounting to reduce their liability. This component of the labor code could be reformed by eliminating this disincentive for foreign investment in exchange for salary concessions or compensation restructuring, such as the inclusion of stock options that would more closely tie compensation and productivity.

The Labor Market Information System

Encuesta Permanente de Hogares, the principal source of information about trends in the labor market in Ecuador, is similar to other household surveys developed in Latin America in the same epoch. Changes in the dynamics of national economies have caused these packaged reports to become less useful over time because the information produced no longer addresses many relevant policy issues. The result is a tremendous investment in collecting information that is underused.

The labor market information should be produced and made available in disaggregated electronic sources. The development of sophisticated PC technology and PC environment software now allows individuals and smaller institutions to develop the capacity for analyzing this information.¹²

To facilitate more complete use of the individual level information collected, INEC should produce and make available at minimum cost a clean, analyzable electronic source of the Encuesta Permanente as part of its regular reporting procedure.

¹²See Battle, B. et al *Honduran Labor Force Assessment*. WPI Inc.;1944. for an example of use of this kind of data in a labor market analysis.

Table II.1
REAL ANNUAL PERCENTAGE CHANGE IN GDP BY SECTOR: 1988-1993

	1988	1989	1990	1991	1992	1993	Ave. Annual Change 1988- 1990	Ave. Annual Change 1990- 1993
Agriculture, Forestry and Fisheries	8%	3%	6%	6%	3%	-2%	5.52%	3.45%
Petroleum and Mining	116%	-10%	-1%	8%	6%	11%	35.05%	6.07%
Manufacturing	2%	-5%	1%	3%	4%	2%	-0.74%	2.49%
Electricity, Gas, and Water	4%	7%	-4%	2%	3%	2%	2.16%	0.73%
Construction	-14%	4%	-15%	-1%	0%	-4%	-8.32%	-5.14%
Wholesale/Retail Trade, Hotels, and Restaurants	2%	2%	4%	4%	3%	2%	2.65%	3.11%
Transportation, Storage and Communication	6%	8%	5%	6%	6%	4%	6.20%	5.18%
Finance, Insurance, and Real Estate	1%	2%	1%	3%	2%	1%	1.72%	1.93%
Services	3%	1%	2%	2%	1%	-1%	1.83%	0.99%
Total GDP	11%	0%	3%	5%	4%	2%	4.60%	3.41%

Source: Banco Central Del Ecuador, *Informacion Estadistica Mensual* No. 1710

Table II.2
DISTRIBUTION OF GDP BY ECONOMIC SECTOR: 1980-1993
 (at current market price)

	1980	1987	1988	1989	1990	1991	1992	1993
Agriculture, Forestry and Fisheries	12%	15%	14%	14%	13%	14%	13%	12%
Petroleum and Mining	21%	8%	10%	13%	15%	11%	13%	11%
Manufacturing	9%	18%	21%	19%	19%	21%	22%	22%
Electricity, Gas, and Water	1%	0%	0%	0%	0%	0%	0%	0%
Construction	7%	6%	5%	5%	4%	5%	5%	5%
Wholesale/Retail Trade, Hotels, and Restaurants	15%	20%	20%	22%	21%	22%	21%	20%
Transportation, Storage and Communication	8%	9%	10%	9%	9%	9%	8%	9%
Finance, Insurance, and Real Estate	12%	8%	5%	6%	4%	5%	5%	5%
Services	15%	13%	11%	10%	9%	9%	9%	11%
Other	4%	4%	4%	4%	5%	5%	5%	5%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: Banco Central Del Ecuador, *Informacion Estadistica Mensual No. 1710*

**Table II.3
TRENDS IN EMPLOYMENT**

	1989			1990			1991			1992			1993		
	Total	Male	Female												
Econ. Active Population	2,379,311	1,487,467	891,844	2,480,985	1,566,739	914,246	2,799,461	1,698,933	1,100,528	2,956,551	1,758,029	1,198,522	2,891,644	1,744,999	1,146,645
Participation Rate	56.3	73.8	40.4		68.4	37.3	56.8	71.3	43.2	45.1	72.2	46.4	57.5	72.1	44
Unemployed	186,994	88,057	98,937	150,472	66,945	83,527	237,034	91,862	145,172	263,207	105,293	157,914	240,831	108,574	132,257
Employed	2,192,317	1,399,410	792,907	2,330,513	1,499,794	830,719	2,562,427	1,607,071	955,356	2,693,344	1,652,736	1,040,608	2,650,813	1,636,425	1,014,388
Modern Sector percent	1,017,107 50.6	692,922 49.5	324,185 40.9	1,062,385 45.6	728,202 48.6	334,183 40.2	1,083,342 42.3	720,525 44.8	362,817 40	1,130,051 47.1	749,688 48.6	380,363 44.9	1,129,416 42.6	757,644 46.3	371,772 36.6
Informal Sector percent	917,077 41.8	561,075 40.1	356,002 44.9	977,674 42	622,428 41	355,246 42.8	1,132,481 44.2	703,916 43.8	428,565 44.9	1,220,854 41.3	734,511 41.8	486,343 40.6	1,174,197 44.3	702,135 42.9	472,062 46.5
Domestic and Agriculture percent	258,133 11.8	145,413 10.4	112,720 14.2	290,454 12.5	149,164 9.9	141,290 17	346,604 13.5	182,630 11.4	163,974 17.2	342,439 11.6	168,537 7.1	173,902 13.7	347,200 13.1	176,646 10.8	170,554 16.8
Underemployed percent	1,051,611 48	659,122 47.1	392,489 49.5	1,161,287 49.8	755,896 50.4	405,391 48.8	1,176,287 45.9	752,109 46.8	424,178 44.4	1,290,112 47.9	796,864 48.3	493,248 47.4	1,251,346 47.2	767,483 46.9	483,863 47.7

Source: INEC/INEM; Encuesta Permanente de Hogares.

Table II. 4
DISTRIBUTION OF TOTAL EMPLOYMENT BY ECONOMIC SECTOR
1990-1993

	1990	1991	1992	1993	Change in number of employed 1990- 1993 (%)
Agriculture, Forestry, and Fisheries	6.9%	7.4%	6.6%	7.3%	21%
Petroleum and Mining	0.1%	0.1%	0.5%	0.7%	902%
Manufacturing	18.0%	16.9%	16.4%	17.5%	11%
Electricity, Gas, and Water	1.0%	0.9%	0.6%	0.7%	-21%
Construction	7.3%	6.8%	6.8%	6.1%	-5%
Wholesale/Retail Trade, Hotels, and Restaurants	27.2%	28.2%	30.5%	29.7%	25%
Transportation, Storage, and Communication	5.7%	5.7%	5.5%	5.9%	18%
Finance, Insurance, and Real Estate	4.6%	4.5%	4.7%	4.5%	11%
Services	29.1%	29.1%	28.5%	27.7%	9%
Other	0.02%	0.1%	0.03%	0.02%	16%
TOTAL EMPLOYED	2317514	2562427	2693344	2650813	14%

Source: Encuesta Permanente de Hogares; Instituto Nacional de Empleo (1990-1992) Instituto Nacional de Estadística y Censo (1993)

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Table II.5
DISTRIBUTION OF EAP BY ECONOMIC SECTOR
AND EDUCATIONAL LEVEL
1993

	Total	Economic Sector (%)			
		Modern	Informal	Agric.	Domestic
None	46,608	18%	47%	20%	15%
Men	25,065	23%	45%	30%	1%
Women	21,543	12%	49%	6%	33%
Primary	536,742	30%	50%	10%	10%
Men	344,081	35%	50%	14%	1%
Women	192,661	21%	49%	3%	27%
Secondary	487,219	51%	42%	4%	2%
Men	279,074	53%	41%	6%	0%
Women	208,145	49%	44%	2%	6%
Higher Educ.	103,628	78%	19%	3%	0%
Men	53,915	79%	17%	4%	0%
Women	49,713	78%	21%	1%	0%
Total EAP	1,174,197	47%	41%	7%	5%

Source: INEC; *Encuesta Permanente de Hogares* (1993)

Table II.6
Trends in Employment, Output, and Productivity in Targeted Sectors
1990-1992

	1990	1992	Change 1990-1992
Processed Food, Beverages, and Tobacco			
Total employment	35,297	45,454	28.78%
Output (millions of 1975 sucres)	9,668	10,074	4.20%
Product per employed person (thousands of 1975 sucres)	273.9	221.6	-19.09%
Textiles, Clothing and Leather Products			
Total employment	21,117	22,471	6.41%
Output (millions of 1975 sucres)	6,440	6,333	-.02%
Product per employed person (thousands of 1975 sucres)	305	281.8	-0.08%
Fabrication of Metal Products, Machinery and Equipment			
Total employment	14,285	16,007	12.05%
Output (millions of 1975 sucres)	1,504	1,947	29.45%
Product per employed person (thousands of 1975 sucres)	105.3	121.6	15.48%

Source: INEC; Encuesta de Manufactura y Minería and Banco Central del Ecuador, Información Estadística Mensual No. 1710

Table II.7
TOTAL WAGE BILL
AS % OF GDP
1980-1992

YEAR	%
1980	32%
1985	21%
1988	18%
1989	15%
1990	14%
1991	13%
1992	13%

Source: ECLAC; *Statistical Yearbook*

Table II.8
TREND IN REAL
MINIMUM WAGE*
1986-1994
(Index 1986=100)

YEAR	INDEX
1986	100
1987	94
1988	82
1989	64
1990	62
1991	54
1992	47
1993	57
1994	61

Source: Ecuador Central Bank; *Informacion Estadistica Mensual No.1710*

*January total including complementary components

Table II.9
AVERAGE MONTHLY WAGE BY EMPLOYMENT
SECTOR AND LEVEL OF EDUCATION
 (nominal wages)

	1989		1993	
	Ave Monthly Salary (nominal)	% Increase for Next Level of Education	Ave Monthly Salary (nominal)	% Increase for Next Level of Education
Modern Sector				
None	34,306		182,452	
Primary	55,879	63%	223,208	22%
Secondary	54,333	-3%	281,994	26%
Higher Ed.	63,127	16%	498,963	77%
Informal Sector				
None	30,195		139,821	
Primary	40,865	35%	200,504	43%
Secondary	40,558	-1%	224,956	12%
Higher Ed.	70,961	75%	390,591	74%

Source: INEC/INEM; *Encuesta Permanente de Hogares*

Table II.10.
RATIO OF AVERAGE MONTHLY
WAGES IN INFORMAL AND MODERN
SECTOR BY LEVEL OF EDUCATION

	1989	1993
None	88%	77%
Primary	73%	90%
Secondary	75%	80%
Higher Ed.	112%	78%

Source: INEC/INEM; *Encuesta Permanente de Hogares*

Table II.11
INDEMNITY FOR TERMINATION OF EMPLOYMENT IN
VIOLATION OF LABOR CODE

Years of Service	Current
Less than 3 years	3 months of salary
3 years or more	1 month of salary for each year of service (limit 25)
	Pre-1991
Less than 2 years	2 months of salary
2 to 5 years	4 months of salary
5 to 20 years	6 months of salary
More than 20 years	12 months of salary

Source: Labor Code

CHAPTER III VOCATIONAL AND MANAGEMENT TRAINING

BACKGROUND

Both the Government and the private sector offer vocational and management training in Ecuador. Through a network of technical high schools and vocational training institutes, the major player in the formation of skilled labor is the Government. The private sector has assumed a large portion of the training in management, administration, and commerce. On-the-job training fulfills specific technical requirements.

Training opportunities cover a wide range of possibilities. Training is available for the never employed, unemployed, underemployed, and employed, and for workers, supervisors, and managers. Dual training refers to on-the-job and classroom training occurring at the same time. Courses vary from three-year technical degrees to 20-hour seminars. The quality of the curricula and the instructors, as well as the demands placed on the student vary.

Debate centers around the role of the public and private sector in providing training. For vocational training to work optimally (in a technological sense), large investments in infrastructure and equipment are required on a continual basis to keep machinery and tools updated. Recurrent costs are high. Subsidized training programs should be for general training, and firm-specific training should be paid for by the business since returns to it will be greater than the social returns of the subsidized training.

Imbalance of public sector subsidies to training is evident in Ecuador today. More than 30 years ago, the state assumed the responsibility of vocational education. What was thought to work during the 1970s and 1980s is not appropriate for the emerging international markets of the 1990s. While investments in training are critical to increased productivity, the risks are inherent. For these investments to pay off, there must be macroeconomic stability, competence in responding to international and domestic markets, and Government reforms to promote productivity.

Because appropriate training can lead to greater productivity, training should both encourage employees to be innovative and increase adaptability. With these objectives in mind, combined with the emergence of Ecuadorian industry into regional and global markets, the responsiveness, relevance, efficiency, and quality of vocational and management training in Ecuador are examined.

INSTITUTIONAL FRAMEWORK

Findings

The Formal Education System

Educational expenditures fell by about 40 percent and its share in the gross domestic product (GDP) declined from 5.3 percent to 3.2 percent in 1990. Net enrollment in primary education in Ecuador is greater than 90 percent with enrollment lower in rural and marginal

urban areas. Average repetition rates are high at 21 percent for the primary level, and only 64 percent of students who enter grade one finish the primary cycle. Annual public expenditures per student on education at the primary level are US\$81, increasing at the secondary level to US\$136 and at the university level to US\$186. While the student populations decrease in the upper grades, expenditures increase. In addition, the shortage of textbooks, teaching materials, and inadequate infrastructure make the poor quality of basic education in Ecuador comprehensible.¹

Both public and private technical high schools and polytechnic universities exist within the formal educational system. The purpose of the technical high schools are twofold. First, they to provide high school students who have little possibility of attending university with a technical skill that would give them a comparative advantage in the labor market. Second, those students who want to continue their education, technical schools provide a base for advancing in higher education within their technical field and entering the labor force at a more skilled level. The polytechnic universities prepare professionals for mid-level research and for supervisory and/or management positions.

In the academic year 1990-1991, there were 1,113 technical high schools in Ecuador: 194 in industrial areas, 296 in agricultural, and 623 in administration. Of the total enrollment in 1990 of 267,000 students, 80 percent were enrolled in administration. These schools are plighted by excessive expansion, poor curriculum planning, and little coordination with the world of employment.² There are three polytechnic universities, and a fourth has been proposed.

Vocational and Technical Training

SECAP. The main responsibility for vocational and technical training lies with the semiautonomous Government institution, Servicio Ecuatoriano de Capacitación Profesional (SECAP). SECAP forms part of the Latin American network of vocational training schools that was formed with assistance from the International Labor Organization (ILO) 30 years ago, has as its major source of revenue a payroll tax off .5 percent from the private sector, is part of the Ministry of Labor, and carries out general vocational training for entry-level positions. In 1993, 35,000 students enrolled in SECAP in its 22 centers throughout the country. At present, the World Bank is the largest international donor with a US\$24 million project to strengthen the institution and make it more responsive to industry needs. It has also received additional monies from the Government, the international donor community, European governments (in the form of technical assistance and machinery), and course fees.

Courses are divided into three types: (1) two- to three-year courses for students between the ages of 14 and 17, (2) courses for adults that last up to one year, and (3) specific short courses for workers, either at the job site or at SECAP centers.

¹World Bank, Third Social Development Project, Social Investment Fund, Ecuador, January 26, 1994.

²Samaniego, Juan, Luis Montoya and Mario Cifuentes, *La Educación Técnica en el Ecuador*, INSOTEC, 1991.

The courses offered include industrial mechanics, automotive mechanics, electricity and electronics, construction, wood and furniture, leather and shoe making, agricultural and construction machinery, agroindustry, industrial sewing, metal working, and graphic arts in commerce and administration.

Private Institutes and Schools. Private specialized institutes, which offer courses in computers, hairdressing, sewing, or any other number of specialties abound in Ecuador. Enrollment is high even though employment opportunities are limited. In general, the students at these institutes are unemployed or working in a low-skill area and believe that additional training will open more job possibilities. In theory, this should hold true; however, in practice, it does not. This phenomena is not distinctive of just Ecuador. Throughout Latin America, consumers believe that training is an important factor to accessing employment. While this theory may hold true for managerial positions, this is not an accurate perception for entry-level employment.

Businesses. Other technical training, such as teaching or updating a specific skill, takes place at the work site and may be machine specific or job specific. Machine manufacturers often offer training to a business that has acquired their machinery. Otherwise, a more-experienced employee may train a new employee. In this way, private industry fulfills its own training needs.

Nongovernmental Organizations. A few nongovernmental organizations (NGOs) provide technical training in leather, metal mechanics, and other fields. Participants pay to attend these programs, which are usually linked to a credit plan. The businesses served are at the microlevel (less than 10 employees) or the very smallest level of the small businesses (10 to 50 employees), and the training is usually a requirement of the loan process.

Management Training

Management training is extremely varied in Ecuador and is the main focus of training offered to employees in the private sector. Some confusion exists between administrative and management training. Administrative courses are available in technical high schools, through SECAP, and throughout the private training institutes. Estimates are that more than 80,000 medium and small entrepreneurs used such training between 1986 and 1990.³

Upper-level management training is not as widespread. At best, two or three institutes provide training in modern management techniques.

The Chambers. The Chambers (commerce, industry, and small industry) play an important role in Ecuador. For formal enterprises, affiliation is mandatory. Thus, the Chambers

³Fraser, Peter, Arelis Gomez Alfonso, Miguel Rivarola, Donald Swanson and Fernando Cruz-Villalba, *Ecuador Micro-Enterprise Sector Assessment: Institutional Analysis*. March 1991.

represent an important percentage of the private sector. While they have often been used for political purposes, they are the principal voice for the industrial sector in Ecuador.

Various Chambers have formalized training institutes within their structures. These institutes train member employees and some nonmember persons in administration, marketing and sales, and midlevel management. Courses may last anywhere from 60 hours to two years. In Quito, an average of 6,000 office workers are trained annually; in Guayaquil, more than 5,000 are trained. Courses and curricula are developed in coordination with member businesses.

Private Institutes. The Central American Institute for Business Administration is a private educational institution providing training for upper management levels. Their courses vary from week-long seminars to two-year master degree programs. Although programs are highly respected, but they require an undergraduate degree and are quite costly. However, they do have a defined market niche within Ecuador (and Latin America) and train about 1,400 Ecuadorians per year.

The Centro de Formación Empresarial offers sporadic upper-level management seminars as does Price Waterhouse.

Nongovernmental Organizations. Management training is usually a requirement for small businesses that access loans through NGOs. Between 1986 and 1990, an estimated 42,000 entrepreneurs participated in some form of management training.⁴ This training is usually highly personalized, tailored to sector-specific and/or size-specific firms, and often directed at the owner.

⁴Ibid.

Table III.1
Illustrative list of Vocational and Management Training Institutes

Organization	Type	Training offered	Level of employee	Number trained 1993	Cost
SECAP	public	Vocational Administration Commerce Services	Student Unemployed Production Administration	35,000	Sub
CEFE	private	Management	Administration Management	3,000	High
INCAE	private	Management	Upper-level Management	1,400	Exp
Swiss contact	private (NGO)	Technical Administration	Product Administration Unemployed	550	Low
INSOTEC	private (NGO)	Technical Administration	Self-employed	1,000	Low
Chambers/Com	private	Administration Management	Administration Management	11,000	Low
Technical HS	public	Vocational (industrial)	Students	7,000	Sub

Sub = Subsidized

Low = 100,000 to 200,000 sucres

Med = 200,000 to 500,000 sucres

High = > 500,000 sucres

Rate of Return

A cost-benefit study found high rates of return to training: 18 percent to social and 37 percent to private.⁵ This return appears higher than expected, which may be due to the lag time between investments and outcome. The lag accounts for advancement in a period when real capital investment declined and investment slowed.⁶ There is no control factor for the quality of training. The public sector should only be investing in training when social returns exceed private returns, and this is not the case in Ecuador today.

⁵ World Bank, "First Social Development Project: Education and Training", November 1991.

⁶ Inter-American Development Bank, *Economic and Social Progress in Latin America*, 1993.

Conclusion

Both the public and private sector offers an abundance of training. High enrollment rates demonstrate that there is a demand for training. However, through interviews with technical schools and with employers in the private sector, there is virtual unanimity that the vocational and management training institutes do not respond to the needs of the productive sectors. A large amount of time and money is invested in training with no apparent relationship to job-market requirements. In addition, the poor quality of basic education is the fundamental barrier to a well-trained and productive work force.

There is training supply and training demand, yet industrial satisfaction with the labor force is restricted to a few companies that have developed their own training programs. For businesses in general, training in-house has proved more efficient and more cost effective.

Where is the problem? What is the driving force behind the vocational and management training "business"? Investments in human resource development are good investments from both a social and private viewpoint. However, in Ecuador, more than basic educational skills are missing to transform the haphazard training courses into viable employment opportunities.

Training investments respond to expectations about rates of return. The decision to invest will depend on the perceived nature of the labor market and the economic health of the country. While there are protective labor laws, industry is reticent to allot resources to a work force that is not motivated to produce quality goods at capacity.

NGOs and specialized private training institutes may be well situated in certain communities and in specific industrial sectors (such as leather) to undertake technical training on a larger scale. Many efficient NGOs that have a proven track record of training microentrepreneurs in technical areas. Building on this role, they may have more flexibility to liaise with specific industries to determine training needs and supply appropriate training.

LABOR FORCE PROJECTIONS

Findings

The National Modernization Council (CONAM) recently asked the business Chambers to project their work force and training needs, but they were unable to respond. The Chambers openly admit that they do not know how to project future needs and that his inability is a substantial liability. This problem is also seen within SECAP, where data keeping and information gathering capabilities make it impossible to project future trends and needs. The SECAP/World Bank project incorporate developing information systems with labor market information, graduate tracer studies, and impact evaluations to better respond to labor market demands.

As part of this project, SECAP undertook a study to identify training needs.⁷ The study is restricted in its usefulness and applicability because it interviewed only owners of businesses that already use SECAP's training facilities. For the study to be worthwhile to training institutes in general it would need to interview a random sampling of workers of various industries.

When information does exist, its reliability has been questioned. As seen from Table III.2, textiles and leather and metal fabrication have not provided growing employment opportunities, and agroindustry fluctuates widely by year. However, interviews with business people in the metal fabrication sector have provided data that disagree with the reduction in employment shown for that sector.

Table III.2
Historical Employment Patterns for Selected Sectors
(percent change)

Sector	1986-1987	1987-1988	1988-1989	1989-1990	1990-1991	1991-1992	1992-1993
Agroindustry	10.20%	-1.10%	11.20%	-9.10%	-5.80%	7.20%	2.60%
Textiles Leather	-0.20%	0.30%	0.10%	2.60%	-13.90%	1.10%	-4.60%
Metal Fabrication	-1.10%	-1.50%	-4.30%	5.90%	0.20%	-3.20%	-0.50%
TOTAL	8.90%	-2.30%	7.00%	-0.60%	-19.50%	5.10%	-2.50%

Source: Secretaria General de Planificación - Programa de Encuestas de Coyuntura, CONADE

Conclusions

Reliable projections on labor force needs are largely hearsay since no comprehensive study or continual research is undertaken on a regular basis by either the Government or private sector. This lack of information puts Ecuador at a serious disadvantage.

The projections made by the sector specialists for this assessment indicate that all the sectors have growth potential. However, the growth potential does not translate into a significant increase in employment. Growth in agroindustry and metal fabrication will result from increased mechanization. Growth in textiles, apparel, and leather manufacturing will create new jobs, but primarily for unskilled labor. The need for training will focus on management, particularly upper-level managers.

⁷Necesidades de Capacitación Profesional en el Sector Industrial, SECAP, 1993.

There are approximately 135,000 new job seekers per year with a larger percentage in urban areas.⁸ There will not be a shortage of unskilled labor. Mechanization will require some skilled operators and mechanics, but industries can fulfill this training need as they have done in the past.

IMPACT OF VOCATIONAL TRAINING SYSTEM ON WOMEN

Findings

The demands of modernization and Ecuador's increasing industrialization during the last 25 years have encouraged many women to enter the labor force. Unfortunately, the dynamics of the Ecuadorian labor market are influenced by cultural values that directly influence women's participation.⁹

Some overall characteristics of women's labor force participation do not fluctuate dramatically among cultures. These include multiple entries into and out of the labor force, generally related to various aspects of family responsibility, such as childbirth, health of children, and health of parents and to the burden of a double workload. While women are entering the labor force in historic numbers, they still keep their domestic responsibilities, resulting in more work and longer days.

Between 1982 and 1993, women's participation in the economy grew from 24 percent to 40 percent. Their increased participation has been at a faster rate than men for the same period. Women represent 20 percent of the industrial labor force and 33 percent of the manufacturing labor force. Of the total number of women employed in manufacturing, 58 percent are in textiles, apparel, and leather. Of this number, 18.5 percent are heads of households, higher than any other manufacturing subsector. In the industrial sector, more than 50 percent of the female work force works in the informal sector denying them access to social security, overtime pay, maternity benefits, and other rights as defined by the labor code. In 1989, around 16 percent of female manufacturing workers were heads of households, 45 percent were married, and 27 percent lived with their parents. In Ecuador, many separated or divorced women return to their parents' home to live. Thus, almost as many female heads of households as married women are economically active.

Education

Education is often thought to account for gender differences in the demand for labor; however, in Ecuador, this does not prove true. Most women are better educated than their male counterparts. In 1990, 33 percent of women had only an elementary school education

⁸D.Hatchette, and David Franklin, *Employment and Incomes in Ecuador: A Macroeconomic Context*. USAID/Ecuador, May 1990.

⁹Much of this information is found in *Case Study: Gender, Industrialization, and the Labor Force in Ecuador* by Amalia Mauro, March 1993.

compared to 45 percent of men. Furthermore, 55 percent of women in manufacturing had attended secondary school compared to 44 percent of men.

Returns from investments in education for females are higher than those for males, in part because of the positive impact that female education has on health, nutrition, and fertility.

Training

Women are not represented in the technical training fields except when industrial statistics include the clothing industry. Although women are concentrated in the traditionally female fields, the number of females in the fields of accounting, banking, and personnel management is increasing.

Labor Force Participation

Women hold lower status jobs and have fewer paid benefits than men. In traditional subsectors, particularly in the garment industry, women constitute 80 percent of the work force. However, only 30 percent of women in manufacturing receive social security benefits versus 40 percent of the men.

The wage gap, where women earn less than men for the same work, is evident in the manufacturing subsector. Thirty-seven percent of the women earned less than the legal minimum wage in 1989 as compared to 16 percent of the men. In a newspaper article published during the course of this assessment,¹⁰ women in comparable positions as men and with comparable education earn only 86 percent of what men earn. This discrimination is even more marked in lower-skilled jobs, particularly in the informal sector. In sectors like garment manufacturing, where the majority of the work force is female and most of the industry is informal, women are denied not only maternity benefits, but all other legal benefits.

Interviews with industry underlined the extent of discrimination. Women are rarely allowed to supervise men, greatly contributing to job immobility. Men and women carrying out the same job are usually placed in different rooms to work. Supervisors feel that they are not able to concentrate if they work together.

Conclusions

Perhaps the greatest barrier to significant numbers of women entering the labor force is traditional cultural values and beliefs, such as unmarried women will get married and quit work, mothers should stay home to take care of their children and elderly relatives, and women are not capable of working in nontraditional fields.

¹⁰El Comercio, November 1, 1994.

Women are concentrated in traditional industries that capitalize on their manual dexterity. These industries have a low demand for skilled labor so women enter and leave as their lives dictate. They have little opportunity for promotion since men do not want female supervisors (as reported by the sector specialists). Few women are managers in business or represented in the Chambers. Better educated women do not translate into better opportunities.

While there is debate on the value of "women-specific" programs, efforts should be made, particularly by NGOs, to train more women in nontraditional fields in programs that include a strong job placement (or self-employment) component.

TRAINING INCENTIVES

Findings

Based on interviews with Chambers and employers, tax incentives for training are not used. Among the Ecuadorian private sector, training is viewed as an expense instead of an investment, particularly at a low skill level. This antiquated view inhibits maximizing productivity through a motivated work force. Businesses and their associations expressed apprehension about training their workers because (1) workers would leave and get a better job, (2) employees would become politicized, (3) the poor quality of available technical training is not worth the investment, and (4) the labor code protects the workers and does not motivate them to work harder.

Business owners expressed a need for trained workers, but are not committed to investing in training, particularly when the training offered does not meet their needs.

Incentives may prove more motivating when trying to reach socially disadvantaged groups, such as the unemployed, never employed, or laid-off worker. The needs for training between these groups vary considerably and receive different emphasis in training programs. Very little attention has been given to the unemployed in terms of retraining. However, the Government is in the process of laying off about 40,000 public sector workers during the next year, and a pilot program to retrain 4,000 of them is being designed. The focus will be on self-employment since they will have severance pay that could be used to finance start-up costs.

In addition, acquiring the first job experience is also very important since previous experience is usually a prerequisite for employment. Most technical schools and programs have some apprenticeship programs, although they do not cover every enrolled student. Specific programs for youth were not found beyond the technical schools.

The private sector fulfills most of its own perceived training needs through private institutes or on-the-job training. Even so, the overall number of employees receiving training is low, but varies according to sector.

Conclusions

Tax incentives will not be a motivating force until the private sector feels that the worker will be motivated. Fiscal incentives are balanced in favor of the business instead of the worker and should be made available only when business is fulfilling a social function. While the main responsibility for training first-time job seekers and the unemployed should rest with the public sector, opportunities to collaborate with the private sector could be encouraged through tax incentives. The social benefits from training this sector are indisputable.

Whether industry should receive direct tax credits for training their employees is questionable, but a possibility if the tax system were more transparent. Training in and of itself is not considered an incentive; training for workers and management should increase productivity. Since the incentives are clear for the businesses whose profits grow from increased production, they should not require additional tax benefits. The worker could be stimulated by bonus pay for producing beyond certain targets.

With such potential rewards, why hasn't training been capitalized on? What will encourage managers to regard training as a key to future growth? Unfortunately, the answer is not optimistic. Market forces will destroy businesses that cannot compete, and when this happens, management will be obliged to examine alternatives.

LABOR MARKET INFORMATION AND TRAINING DESIGN

Findings

As stated earlier, when labor projections have been made, they are generally self-serving and of little use for national or regional planning purposes. The same holds true for training design. Traditionally, courses offered depended on what funding was available. Large programs that were developed in the 1960s and 1970s are no longer relevant today. Once the expensive infrastructure was in place, it proved difficult to adapt to modernizing industry.

There is a low correlation between training in a specific sector and employment in that sector. In other words, graduates are not usually employed in the field they studied. There are no formal linkages between human resource development and industry. Only 14 percent of the graduates of industrial programs in technical high schools work in their fields.¹¹

Unemployment and underemployment in Ecuador share some interesting characteristics. As seen in Table III.3, unemployment is concentrated in high school leavers and completers and university leavers. Unemployment levels at the two extremes (completed university and incomplete elementary school) are relatively low. It is assumed that the system absorbs unskilled workers and the well educated and has created a vacuum for midlevel workers.

¹¹Ibid, INSOTEC.

Table III.3
Unemployment by Schooling Completed (Quito, Guayaquil and Cuenca)
Percentages

EDUCATION ATTAINED	QUITO	GUAYAQUIL	CUENCA
Completed University	4.7%	2.0%	3.0%
Incomplete University	12.1%	10.1%	13.7%
Completed High School	15.0%	9.7%	11.0%
Incomplete High School	9.9%	6.7%	8.3%
Completed Elementary School	6.4%	4.6%	3.1%
Incomplete Elementary School	4.1%	3.4%	3.6%

Source: INEM, Encuesta Permanente de Hogares, Nov. 1987, adapted by CONUEP¹²

Conclusions

Blame for the lack of correlation between labor market information and training is not one sided, but rather shared between the public and the private sector. Since routine projections do not exist, training cannot be responsive to real needs, except in an arbitrary or reactive fashion. Supply and demand are completely divorced from each other. The result is a large underemployed group of professionals (doctors, lawyers, and architects) and a private sector needing industrial engineers and export marketing specialists.

LINKAGES BETWEEN TRAINING AND BUSINESS

Findings

Since 1992, SECAP, with funding from the World Bank, is implementing an adult education and training project aimed to provide (1) basic education and training (functional literacy) programs directed to the poor, (2) technological and informational support for small enterprises in subsectors with good export development potential, and (3) strengthening of SECAP's use of their installed capacity. The project design encourages SECAP to establish closer relationships with the industrial sector. To do this, SECAP is developing a data bank on training and work force needs.

Present technical training facilities do not adequately address the technical needs of the bulk of Ecuadorian industry. Most of the machinery available at SECAP was donated between 15 and 20 years ago and has not kept up with the technological changes in some of the sectors.

¹²CONUEP, *Evaluación de la Situación Actual y Perspectivas para el corto y mediano plazos de las Universidades y Escuelas Politécnicas*, 1992.

The lack of instructors with experience in the industrial sector contributes to the problem of understanding demand between the public and private sector. This deficiency also manifests itself in the lack of understanding of markets and potential demand. Because of low public sector salaries, qualified instructors are quickly absorbed by the private sector. From time to time, instructors are brought in from the private sector for specific training needs.

To reach marginal populations, SECAP has developed a program that works primarily with microentrepreneurs, stresses literacy, and provides mobile workshops in marginal communities. It is projected to reach 20,000 microentrepreneurs and establish 10 community workshops.

One positive example of collaboration was highlighted by both the public and private sector. In 1991, the Government of Italy donated state-of-the-art graphic arts equipment to SECAP. Included in the donation was an exchange of training expertise. SECAP staff spent up to a year studying and working in the graphic arts in Italy, and Italians came to Ecuador to install and set up the graphic arts centers around the country. Recognizing the capacity of SECAP to be a major player in the modernization of graphic arts in Ecuador and the potential underuse of the equipment, the Chamber of Industries of Pinchincha reached an agreement with SECAP to use their facilities to train the private sector. All SECAP graphic art graduates have had employment offers before they finished their program. This is the only successful exchange encountered between the two sectors.

The underemployment discussed in the section on labor market information and training design is another example of the gap between training and employment.

Conclusions

SECAP is not fulfilling its mandate. It does not have the institutional flexibility to respond quickly to changing labor market needs, nor does it have the institutional capacity to determine what those needs are. Three years into the World Bank project and the advances in the development of a viable data bank on training and work force needs are negligible. The staff associated with the project understand the problems confronted by SECAP but are saddled with cumbersome institutional policies that constrain hiring and project adaptability.

Responsibility for the gap between training programs and business needs lies not only with the public sector for the traditional and outmoded education but also with the productive sector for failing to determine occupational demand and to identify training needs.

The lack of dialogue and formal linkages between education and training institutes and business is thought to be largely responsible for the poor correlation between training and employment. Businesses also felt that even though they contributed to SECAP through a payroll tax, they did not receive benefits in accordance with what they paid. Historically, industry has not demanded a return on its investment from SECAP. Given the historical divide between the two sectors, great efforts would have to be undertaken by both to establish a dialogue about training needs and employment opportunities. While the private

sector complains that SECAP is not meeting its technological training needs, this sector has taken little initiative in providing guidance to SECAP about what these needs are.

WILLINGNESS OF THE GOVERNMENT OF ECUADOR TO REFORM

Findings

Basic Education

Employers consistently complain about a lack of motivation in the work force. This is substantiated by low production levels. Even though Ecuador, compared to other Latin American countries, has respectable enrollment levels through secondary school, the quality of the education is low. Some skills that are not taught and that are significant basic skills for the work force, should be part of an elementary education. These skills include logical reasoning, language, giving and taking directions, flexibility to adapt to changing situations, basic mathematical calculations, ordering priorities, and clear thinking.¹³

The educational reform currently underway in Ecuador is promising. However, it will be many years before the effects of new curricula, textbooks, and teacher training will be felt in the work force.

SECAP

At SECAP, programs have been designed to try and bring training and employment closer together. However, the programs are isolated from the institution and its perceived mandate. The programs, while attempting to address real training and employment issues, exist within a vacuum in the institute. They do not rectify the major institutional barriers to develop responsive training programs. Many institutional evaluations of SECAP have been carried out over the years. They recognize institutional weaknesses, and projects have been designed to address some of the weaknesses, yet nothing has been done to implement fundamental changes within the institution.

Labor Code Reform

Business sees the protective labor code as a barrier to modernization. It affects training in two ways. First, to avoid paying employee benefits, many employees hire only temporary help. Second, permanent employees enjoy undeniable job security and, according to employers, lack motivation. Whether the Government will change the labor code remains to be seen, and any change will be volatile.

¹³CEPAL, Comisión Económica para América Latina y el Caribe, "Transformación Productiva con Equidad," Naciones Unidas, 1991.

Conclusion

Educational reforms are underway; however, it will take a long time to measure to what extent they will resolve the training and labor problems outlined here.

Ecuador needs to modernize its education and training systems, institutes, and programs. Without a drastic overhaul, Ecuador will not be able to compete. This transition is outlined below and requires the open flow of information between vocational and management training institutes and business. Only radical changes in SECAP's organization and image will improve its responsiveness to the industrial sector. Political interests may inhibit the fundamental reforms and structural changes that are necessary for SECAP to meet the challenge and training needs of an economy struggling with industrial modernization.

Table III.4
Transition from Traditional to Modern Vocational Training Institutes

TRADITIONAL	MODERN
The public sector plays a major role in developing and financing of training programs.	Training is more focused on short courses for people already employed.
Training is supply oriented where schools and specialized institutes determine training with little input from potential employers.	Broader-based skills give workers greater flexibility.
Targeted interventions focus on youth and vocational training with major percentage of resources going to long courses.	Training for small entrepreneurs is provided through NGOs.
There is no systematic monitoring, data collection, and evaluation.	More of the private sector provides training.
	Efforts are made to adapt training to economic adjustment problems.
	Information systems monitor supply, demand, and tracer studies.
	Training is linked to the needs of private sector employers.

MAJOR FINDINGS AND CONCLUSIONS

For investments in human resources to pay off, there needs to be economic stability, effective use of international and domestic markets, Government reforms in education, labor and tax policies, and investments to promote productivity. These reforms are needed if Ecuador is to compete in international markets and attract foreign capital and if training is to be viewed as a worthwhile investment.

- A few nongovernmental organizations provide technical training in leather, metal mechanics, and other fields. Participants pay to attend, and these programs are usually linked to a credit plan. The businesses served are at the microlevel (less than 10 employees) or the very smallest of the small businesses (10 to 50 employees).
- Management training is usually a requirement for small businesses that access loans through NGOs. Between 1986 and 1990, an estimated 42,000 entrepreneurs participated in some form of management training.¹⁴ This training is usually highly personalized, tailored to sector-specific and/or size-specific firms, and oftentimes directed at the owner.
- Since 1992, SECAP, with funding from the World Bank, is implementing an adult education and training project with one of its objectives to develop basic education and training (functional literacy) programs directed to the poor. The project works primarily with microentrepreneurs and stresses literacy and provides mobile workshops marginal communities. It is projected to reach 20,000 microentrepreneurs and establish 10 community workshops. To date, the project has made no significant impact on training in the nonformal sector.
- There is insufficient data keeping and information gathering capabilities to project future training trends and needs. This was recognized and incorporated in the SECAP/World Bank project in developing graduate tracer studies, and impact evaluations to better respond to labor market demands and to identify collaborative possibilities between the nonformal and industrial sectors.
- At SECAP, programs have been designed to try and bring training and employment closer together. However, the programs are isolated from the institution and its perceived mandate. The programs, while attempting to address real training and employment issues, exist within a vacuum in the institute. They do not rectify the major institutional barriers to develop responsive training programs. Many institutional evaluations of SECAP have been carried out over the years. Although institutional weaknesses have been recognized and projects have been designed to address some of the weaknesses, nothing has been done to implement fundamental changes within the institution.

RECOMMENDATIONS

- NGOs and specialized private training institutes may be well situated in certain communities and in specific industrial sectors (such as leather) to undertake

¹⁴Fraser, Peter, Arclis Gomez Alfonso, Miguel Rivarola, Donald Swanson and Fernando Cruz-Villalba, *Ecuador Micro-Enterprise Sector Assessment: Institutional Analysis*, March 1991.

technical training on a larger scale. There are efficient NGOs that have a proven track record of training microentrepreneurs in technical areas. Building on this role, they may have more flexibility to liaise with specific industries to determine training needs and supply appropriate training.

- While there is debate on the value of "women-specific" programs, efforts should be made, particularly by NGOs, to train more women in nontraditional fields in programs that include a strong job placement (or self-employment) component.
- For the already employed work force (including self-employed), adult education training could take place through the existing network of nongovernmental organizations. Emphasis would be on participative, adult education and experiential learning methodologies that would encourage workers to reason and work together to develop solutions.
- An in-depth institutional analysis of SECAP needs to be undertaken to identify financial and human resources constraints to its flexibility and modernization and to make recommendations for its future role, among other things, to provide training to the nonformal sector.
- An in-depth institutional analysis of SECAP needs to be undertaken to identify financial and human resource constraints to its flexibility and modernization and make recommendations for its future existence along the following lines:
 - SECAP should be detached from the Ministry of Labor and made an autonomous institution.
 - The SECAP board of directors should have equal representation between the public and private sector.
 - Special satellite advisory commissions should be formed and would be composed of equal representation from the public and private sector. Their responsibility would be to keep curricula current, recommend purchasing of essential equipment and machinery, recruit instructors, oversee job placement, and evaluate sector performance.
 - SECAP should downsize the permanent faculty of instructors and incorporate part-time instructors employed in specific industries.
 - SECAP should develop curricula based on broad skills acquisition.
 - SECAP should focus training on never employed and unemployed, leaving training of employed workers to the private sector.

- SECAP should coordinate sharing of installations with private sector and technical high schools .
- SECAP should modernize the infrastructure, machinery, and equipment throughout the country.
- SECAP should terminate courses that are not well attended or are outdated and move other courses to different centers based on demand and sector specificity.
- SECAP should study other public sector training models from other countries (such as Colombia) for ideas on restructuring SECAP.

CHAPTER IV FOOD PROCESSING

BACKGROUND

Ecuador's Food, Beverage, and Tobacco sector (FBT) is undergoing an imposed transformation process that will clarify a new identity for the sector, within the total economic structure of Ecuador. Recent implementation of free trade and liberalization of import practices has flooded the market with products from different parts of the world, including fresh milk from Chile at lower prices than locally produced milk and multiple higher quality food products from the United States at very competitive prices. Because local producers did not foresee this invasion, they are now watching their market shares reduce to alarming levels.

Claims that unfair trade practices are the main cause for this invasion of foreign-made products are not properly substantiated, especially in cases when imported products are priced higher and consumers are willing to pay those prices. Claims that some novelty will wear off and consumers will once again buy lower priced national products are logical, but those companies trusting their future on this claim are inviting disaster.

Ecuador's Food Processing (FP) and Non-Traditional Agricultural Exports (NTAE) subsectors must become more sophisticated, more productive, more efficient, and more quality conscious to protect or recover its local market and expand nationally and internationally.

This chapter evaluates issues concerning human resources and training, and opportunities and constraints that these issues impose for the future of these subsectors.

FINDINGS

Description of the Sector

The FP/NTAE subsectors within the FBT sector is a very difficult subsector to segregate for three fundamental reasons: (a) because of its interrelation with basic agricultural products; (b) because of the lack of clear definitions on what constitutes processing, pre-processing, etc., in Ecuador; and (c) because of the lack of consistent information from the different entities producing them. As illustrated later, Proexant had to undertake an extraordinary task in reclassifying Ecuador's Central Bank figures to gather some meaningful information for the FP/NTAE subsectors.

Annex IV.1 presents the different classifications of the Food, Beverage, and Tobacco products according to the Clasificación Industrial Internacional Uniforme (CIIU). But Proexant segregates its information using the Código Uniforme de Comercio Internacional, which appears to be more significant for its purposes and more suitable for understanding achievements of the FP/NTAE subsectors.

Central Bank Figures

According to Ecuador Central Bank gross domestic product (GDP) figures, the FBT sector is grouped in the Manufacturing Industries sector and is segregated into the following categories:

Sector: 3.1.—Food, beverages, and tobacco products

- (09) Processed meat and fish
- (10) Cereals and bakery products
- (11) Sugar
- (12) Various food products
- (13) Beverages
- (14) Processed tobacco

Table IV.1 depicts the importance of the food, beverage, and tobacco subsector in the total GDP from 1985 through 1993. According to Central Bank figures, the FBT sector has reduced its importance in GDP from 6.6 percent in 1985 to 5.1 percent projected for 1993, although the GDP has reflected a cumulative growth of 22.8 percent from 1985 through 1993 (annual variations are listed in Table IV.1.) Also, the FBT sector reduced its importance in Total Value Added Manufacturing from 37.8 percent in 1985 to 33.2 percent projected for 1993, while Total Value Added Manufacturing reflected a cumulative growth of 7.09 percent from 1985 through 1993.

The year 1987 was the best since 1985 for the FBT sector when compared to the GDP and Total Value Added Manufacturing. For that year, the GDP decreased by 6 percent and Total Value Added Manufacturing only grew by 1.7 percent, while the FBT sector grew by 2.8 percent, increasing the FBT share to 7 percent of GDP and 38.5 percent of Total Value Added Manufacturing. But, the year 1982 was the best year ever for the FBT sector and the FP subsector. For 1982, FBT sector represented 7.9 percent of GDP and 41.6 percent of Value Added Manufacturing, and the Various Food Products subsector reached an all time high of 3.77 billions in 1975 Sucres.

For the FBT sector to recover its 1987 importance in GDP it would need to sustain an average annual growth of at least 8 percent over the next five years; this figure assumes that the GDP will only grow at a 2 percent annual rate. If the manufacturing sector grows also at a 2 percent rate over the next five years, the FBT sector would only need to have a 4 percent annual growth to reach the 38.5 percent share of 1987. Existing claims that Ecuador needs to sustain an average GDP growth rate of 4 percent over the next decade, are very ambitious, and even if possible, the growth has to come from other sectors of the economy.

Table IV.1
Share of Food, Beverage, and Tobacco in GDP
 (Millions of Constant 1975 Sucres)

Year	GDP	Annual Growth (%)	Value Added Manufact	Annual Growth (%)	Manufact	Value Added FBT	Annual Growth (%)	FBT	FBT
					GDP (%)			Manufact (%)	GDP (%)
1985	164,054	4.3	28,710	0.2	17.4	10,848	(4.3)	37.8	6.6
1986	169,136	3.1	28,241	(1.6)	16.7	10,770	(0.7)	38.1	6.4
1987	159,016	(6.0)	28,729	1.7	18.1	11,075	2.8	38.5	7.0
1988	175,742	10.5	29,312	2.0	16.6	10,729	(3.1)	36.6	6.1
1989	176,195	0.3	27,858	(5.0)	15.8	9,786	(8.8)	35.1	5.5
1990	181,531	3.0	28,055	0.7	15.5	9,668	(1.2)	34.5	5.3
1991	190,638	5.0	28,953	3.2	15.2	9,784	1.2	33.8	5.1
1992*	197,436	3.6	29,995	3.6	15.2	10,077	3.0	33.6	5.1
1993**	201,447	2.0	30,745	2.5	15.3	10,198	1.2	33.2	5.1

Source: Cuentas Nacionales - Banco Central del Ecuador - No. 16-1993
 Boletín No. 17 (1984 - 1993) a mayo de 1994

* Estimated

** Projected

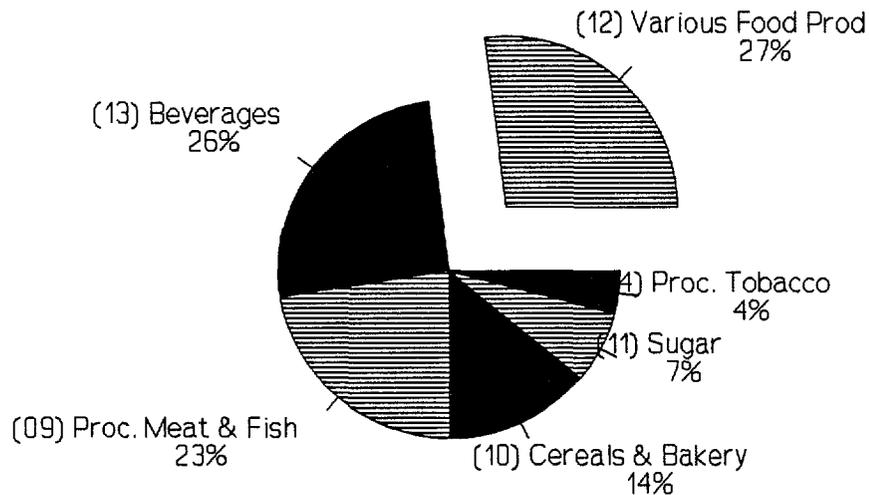
The Food, Beverage, and Tobacco subsector has contributed with 5.75% of total GDP and with 35.66% of total Value Added Manufacturing from 1985 through 1993.

Projected Value Added in FBT for 1993 reflects a lower figure than the one obtained in 1985. The FBT subsector has reduced its significance in overall GDP since 1985.

The Agricultural and Fishery Sector reflected S/. 24,178 millions of Value Added in 1985 and is projected to reflect over S/. 35,500 millions in 1993, both at constant 1975 Sucres. This cumulative growth of over 46.8 percent is indicative of the importance of selling and/or exporting fresh produce versus selling them to the food processing industries in Ecuador.

Figure IV.1 shows the share of value added, as an average from 1986 through 1990, for each of the subheadings in the Central Bank's FBT sector. The various food products subheading has represented more importance than the processed meat and fish subheading and the beverages subheading.

Figure IV.1
Average Value Added 1986-1990
FBT Sector by Sub-heading

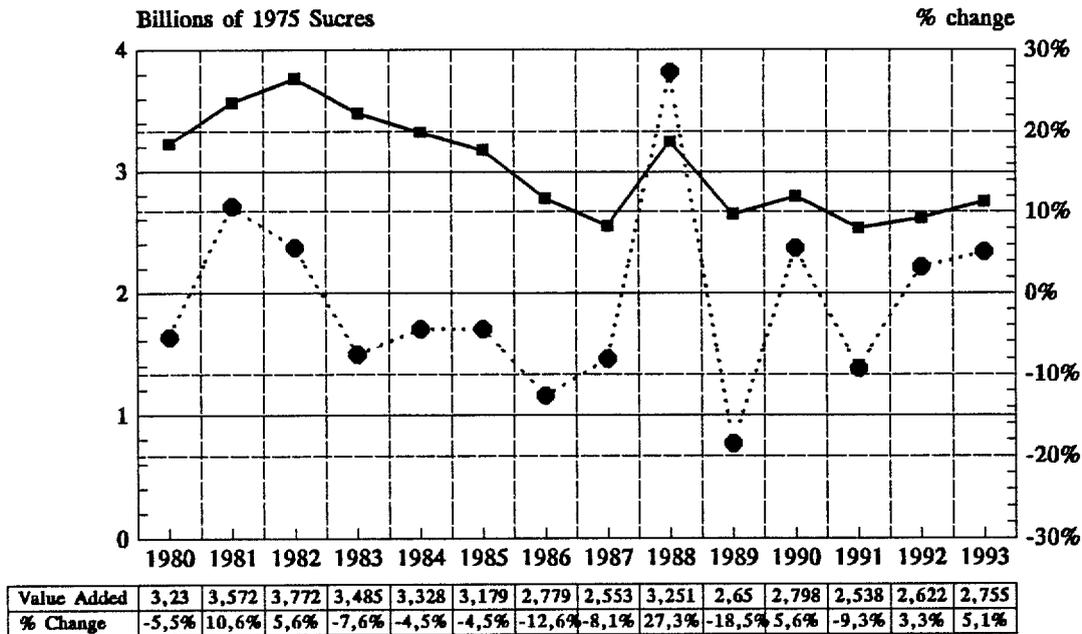


Source: Cuentas Nacionales - Banco Central No. 16-1993

Figure IV.2 illustrates the value added produced by the various food products since 1980. Considering that 1992 are estimated and 1993 figures are projected, there appears not to be a promising future for the food processing industries in Ecuador, unless major structural changes take place to effectively promote and support development of these industries.

From 1980 to 1991, the various food products subheading shows a negative trend. Only four of these years had positive changes over the previous year, but the level of 1982 was never regained.

Figure IV.2



Various Food Products

■ Value Added ● % Change

Source: Cuentas Nacionales - Banco Central del Ecuador No. 16-1993
 Boletín No. 17 (1984 - 1993) a mayo de 1994.
 Note: Figures for 1992 are estimated and projected for 1993.

Proexant Figures

Concerned about the implications of the Central Bank figures, Proexant undertook the task of reclassifying export figures to assess the overall achievement of the NTAE support efforts it had developed with USAID funding. (See Table IV.2.)

Total figures reclassified by Proexant show that in 1985 exports represented 7,700.6 metric tons (MT) for a freight on board (FOB) value of US\$8 millions, and in 1993 these figures changed to 108,196.9 MT for an FOB value of US\$90.9 millions (14 times the volume and over 11 times the value in 9 years.)

Figure IV.3 illustrates the variation in average prices per MT for each of the different product groups of Table IV.2, excluding the various vegetables and fruits because this group combines different processed fruits and vegetables.

80

Table IV.2
Proexant Figures for NTAE - Reclassified from Central Bank Figures
 (All US\$ figures in thousand of current US\$)

YEAR	Vegetables		Fruits		Various Vegetable and Fruits**	Spices	Banana Products
	Fresh	Processed	Fresh	Processed*			
1985	MT 34.8 US\$ 6.7	MT 49.1 US\$ 77.4	MT 3519.2 US\$ 1341.2	MT 654.8 US\$ 1075.4	MT 1875.8 US\$ 3729.9	MT 277.0 US\$ 126.8	MT 713.2 US\$ 1088.5
1986	MT 212.3 US\$ 42.7	MT 406.7 US\$ 661.0	MT 3889.7 US\$ 1560.6	MT 895.0 US\$ 1129.5	MT 2057.5 US\$ 3670.7	MT 20.9 US\$ 38.1	MT 657.3 US\$ 1055.8
1987	MT 136.2 US\$ 59.9	MT 393.6 US\$ 715.6	MT 4174.6 US\$ 1439.6	MT 1314.0 US\$ 1631.9	MT 1689.7 US\$ 3412.9	MT 68.6 US\$ 115.1	MT 2531.5 US\$ 2154.2
1988	MT 72.1 US\$ 54.2	MT 197.4 US\$ 395.8	MT 4939.3 US\$ 1436.4	MT 1438.3 US\$ 1171.6	MT 896.2 US\$ 2672.2	MT 23.1 US\$ 36.2	MT 6521.1 US\$ 5174.0
1989	MT 59.5 US\$ 52.5	MT 479.9 US\$ 626.0	MT 6217.1 US\$ 1972.5	MT 1705.0 US\$ 1678.8	MT 1162.9 US\$ 1657.6	MT 86.9 US\$ 69.6	MT 8882.5 US\$ 6328.4
1990	MT 332.6 US\$ 148.8	MT 1080.2 US\$ 1320.2	MT 4970.8 US\$ 1860.0	MT 1892.7 US\$ 1600.3	MT 1194.1 US\$ 3441.9	MT 122.0 US\$ 196.6	MT 8821.0 US\$ 6288.2
1991	MT 1177.4 US\$ 954.7	MT 1516.3 US\$ 2334.7	MT 5806.7 US\$ 2109.4	MT 2812.3 US\$ 3727.3	MT 1250.1 US\$ 6776.0	MT 85.6 US\$ 106.0	MT 10722.1 US\$ 7697.3
1992	MT 2668.1 US\$ 1291.7	MT 3568.9 US\$ 3579.2	MT 7622.1 US\$ 2544.0	MT 3880.2 US\$ 7741.0	MT 1390.0 US\$ 5356.3	MT 62.7 US\$ 66.7	MT 14471.8 US\$ 9636.4
1993	MT 3145.5 US\$ 1280.4	MT 4727.8 US\$ 4837.0	MT 12230.0 US\$ 3325.9	MT 4266.5 US\$ 6010.9	MT 2628.4 US\$ 5491.3	MT 57.3 US\$ 41.3	MT 14444.4 US\$ 9857.7

* Processed fruits includes fruit juices

** Various vegetable and fruits includes sauces (tomato, hot, garlic), fruit concentrates, sliced tamarind and pineapples, and banana base prepared foods.

Figures IV.4 and IV.5 show the variation in prices and volume for vegetables and fruits respectively. Both reflect a significant achievement in export promotion, although there are no figures of total investment during this same period for promoting NTAE.

Figure IV.3

Proexant NTAE Figures

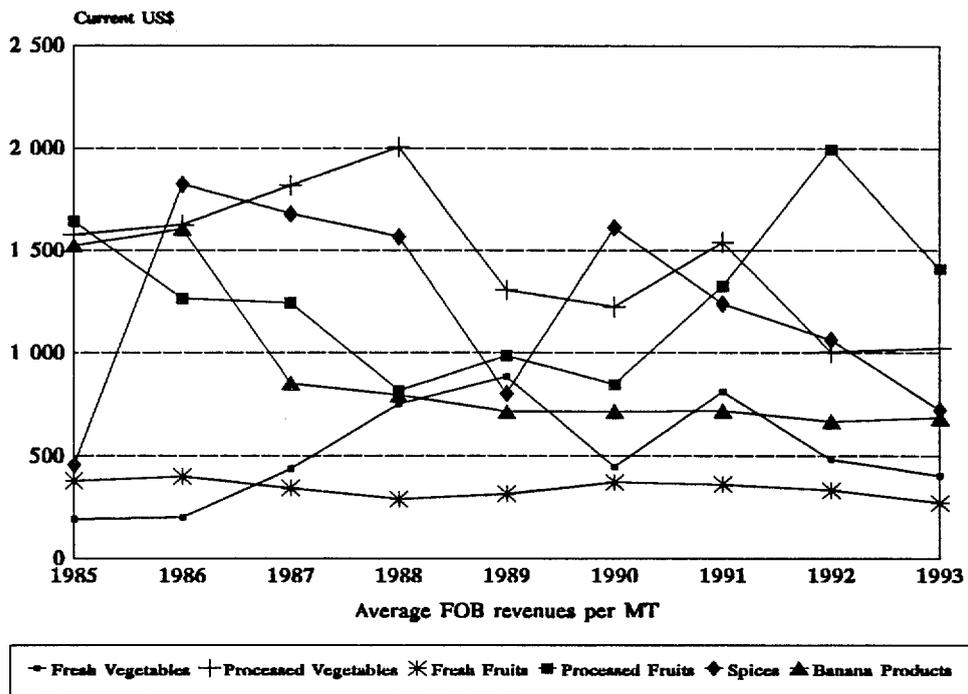


Figure IV.4
Proexant NTAE Figures

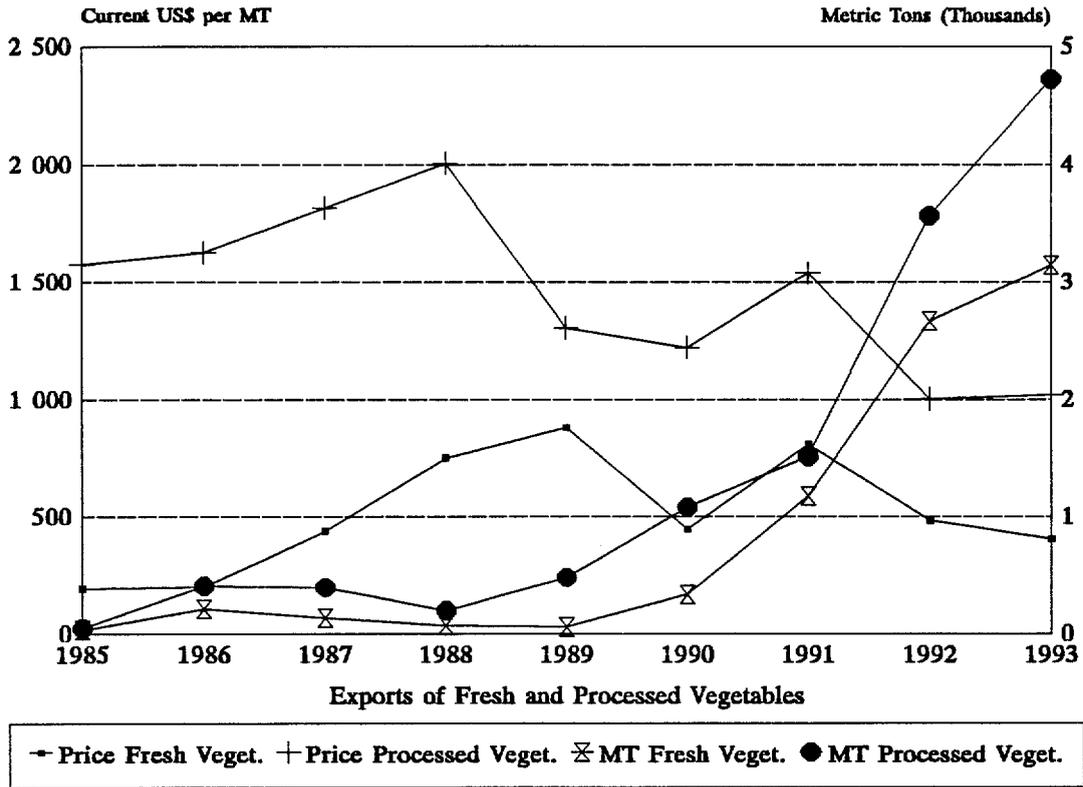


Figure IV.5
Proexant NTAE Figures

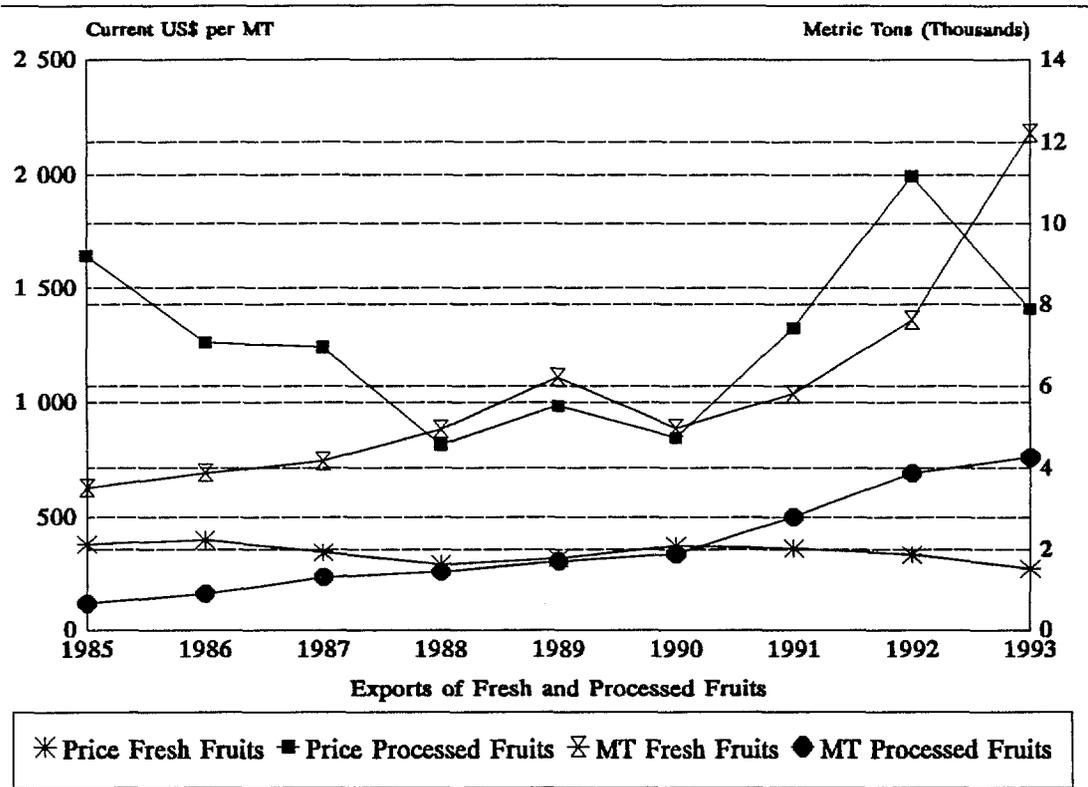


Figure IV.4 clearly indicates that for fresh vegetables, export promotions have resulted in an increase from 34.8 MT in 1985 to 3,145.5 MT in 1993 (90 times the volume in 9 years) and from US\$6.7 thousands in 1985 to US\$1.28 millions in 1993 (191 times the revenue in 9 years.) For processed vegetables, an increase from 49.1 MT in 1985 to 4,727.8 MT in 1993 (96 times the volume in 9 years) and from US\$77.4 thousands in 1985 to US\$4.84 millions in 1993 (62.5 times the revenue in 9 years.)

Figure IV.5 indicates that for fresh fruits, export promotions have resulted in an increase from 3,519.2 MT in 1985 to 12,230.0 MT in 1993 (3.5 times the volume in 9 years) and from US\$1.34 millions in 1985 to US\$3.33 millions in 1993 (2.5 times the revenue in 9 years). For processed fruits, an increase from 654.8 MT in 1985 to 4,266.5 MT in 1993 (6.5 times the volume in 9 years) and from US\$1.1 millions in 1985 to US\$6.01 millions in 1993 (5.6 times the revenue in 9 years).

Other Considerations

Overall achievement of export promotions since 1985 are extraordinary, and the figures presented by Proexant challenge conclusions based on figures from the Central Bank. One factor that must be kept in mind, needing a more extensive investigation, is why are there

persistent estimates of less than 40 percent use of installed capacity when total volume exported changed by 290 percent from 1990 to 1993.

Based on Puga's study,¹ as of 1990 the combined total capacity of industrial plants was of 159,000 MT per year, and only 51,000 MT were being used. In 1990, total volume exported was 26,169.9 MT, corresponding to 51 percent of used capacity and implying that the remaining 49 percent was destined for local consumption. For 1993, the total volume exported was 75,905.0 MT, bringing the level of capacity use to at least 60 percent. This is a significant improvement from 1990 figures assuming that installed capacity did not increase.

The invasion of foreign-made products has created awareness of quality related issues in local consumers. To illustrate, a local produced margarine advertised as containing 0 percent cholesterol has been subject to competition from U.S.-made margarine costing less than US\$0.30 more for a pound presentation and containing 0 percent cholesterol. Consumers prefer buying US made margarine fundamentally because they do not trust the 0 percent cholesterol claim of the local producer.

The previous illustration is repeated for many imported products, such as Chilean pastas, Colombian cereals, U.S. tomato sauce, imported beers, Italian marmalades, and U.S. jellies. If local consumers do not trust quality issues of local producers, food processing industries cannot penetrate foreign markets where consumers are more demanding of sustainable quality.

Another aspect not fully investigated is whether agricultural producers adjust to prices and marketing opportunities by changing crops and whether this has had any effects on availability of fresh fruits and vegetables for food processing industries. For short-cycle crops, this is an issue that food processing industries must consider.

Also, a reasonable conclusion that needs further research is that there are limited numbers of farmers and limited agricultural areas ready to be profitably farmed, causing that promotion of one crop adversely affects another crop. Expansion of land used for bananas and African palm has undoubtedly reduced availability of land for other crops. To illustrate, bananas represented about 460,000 acres in 1991 and 556,000 acres for 1993 (21 percent expansion in two years engrossing 96,000 additional acres.) Despite this, Proexant figures show a tremendous increase in farm production for NTAE.

Table IV.3 indicates (according to Puga's study) export figures for nontraditional fruits and vegetables for 1985-1989.

¹Estudio de la Agroindustria Ecuatoriana y Determinación de su Capacidad Exportadora - Subsectores de Frutas y Vegetales. Grupo Consultor Ing. José Puga V. Diciembre de 1990.

Table IV.3
Export of Fruits and Vegetables 1985-1989

Items	# of Products	Volume (MT)	Value (US\$)
Fruits			
Fresh	11	3,517.3	3,083.6
Processed	42	7,510.5	10,750.9
	<i>Subtotal</i>	<i>53</i>	<i>11,027.8</i>
Vegetables			
Fresh	12	15,744.5	3,721.6
Processed	20	3,184.4	12,002.1
	<i>Subtotal</i>	<i>32</i>	<i>18,928.9</i>
	Total	85	29,558.2

The above figures indicate that exports of fresh fruits generated can be estimated at US\$877.20 per MT and processed fruits can be estimated at US\$1,431.45 per MT (an average of US\$554.25 value added per MT for processing) and that exports of fresh vegetables generated US\$236.35 per MT and processed vegetables US\$3,769.00 per metric ton (an average of US\$3,523.65 value added per MT for processing).

As illustrated in Figures IV.4 and IV.5, difference in prices between fresh and processed vegetables has decreased in recent years and has increased between fresh and processed fruits. Assuming that no invoice manipulation has occurred, this is conclusive that profitability of the FP/NTAE subsectors cannot be viewed as a short-term objective (annual) and that excessive profits in one or more years must provide a cushion for losses in other years.

Puga's study highlights that from 1985 to 1989, there have been inconsistencies in exporting products and that a significant number of shipments are for promotional products. He also highlights that irregularities in transportation, the lack of sound promotional campaigns, technical deficiencies in production processes, and lack of quality controls are factors negatively affecting the potential for exporting nontraditional products. Through 1993, there are no indications that major changes have occurred to modify Puga's conclusions, despite some increases in exports.

One of the most successful exports of processed fruit operations is that of Maracuyá (passion fruit). Present installed capacity for Maracuyá concentrate can process production equivalent to 19,750 acres, but as of 1991 production was no more than the equivalent of 4,925 acres (25 percent of installed capacity.) Some argue that concentrate producers have not been successful in promoting more production at the farm level, but in 1992 total production area

was increased by 50 percent, and 22 percent more is estimated for 1993. Not surprisingly, 1992 exports were 27 percent higher than 1991, and 1993 exports are projected as 74 percent higher than 1992. Therefore, it may be that present installed capacity is not excessive for ongoing international demand and that better promotional efforts are necessary to increase consumption of Maracuyá concentrate worldwide.

Various studies and reports highlight that overall capacity use in the FP subsector, on average, is no greater than 40 percent. In all reports, claims are made that the lack of availability of fresh fruits and vegetables is the main cause for this low level of capacity use. These reports also acknowledge the fact that low prices paid by food processing industries is probably the main reason for the lack of availability of fresh fruits and vegetables. When producers are confronted with why they pay low prices, two main reasons are provided: (1) there is a high level of waste in the selection of quality fruits and vegetables before processing (not necessarily so for juices and concentrates) and (2) low labor productivity affecting overall efficiency, although this is only because there has been many articles published stressing the need for productivity improvement to be competitive without real understanding of what is meant by productivity.

From figures obtained from different reports, vegetable oil industries show the higher level of installed capacity use (50 percent), and fruit and vegetable food processing industries the lowest (25 percent), both as of 1990. As most processing plants were purchased when there were governmental incentives for importing equipment, it is logical to assume that investors decided to purchase overdimensioned equipment, based on funding availability and not on sound marketing studies.

Therefore, food processing industries must contemplate ways to increase plant use by at least one or more of the following alternatives:

- supporting agricultural producers in diversification of products to meet different cycles throughout the year
- becoming subcontractors for different international and national food processing industries, fitting into the production chain of those industries
- jointly implementing strategic promotional campaigns to increase national and international demand for Ecuadorian products
- increasing cold storage capacity (raw material and finished products) to smooth their production schedules and provide full-time employment to the majority of their work force
- combining efforts to negotiate purchases of packing material to reduce the incidence in costs and improve quality

Table IV.4 contains illustrative information, from answers to specific issues obtained from some interviews.

Table IV.4
Reasons for Low Installed Capacity Use

Question	Main Reason	Other Reasons
Why don't you use more of your installed capacity?	<i>I can't get enough fresh fruits or vegetables.</i>	<i>There is no demand for additional production.</i>
Why can't you get enough fresh fruits and/or vegetables?	<i>Agricultural producers are not willing to produce more. It is not profitable for them.</i>	<i>Producers prefer selling directly to brokers or final consumers of fresh produce.</i>
Why do producers prefer selling to them?	<i>They pay better prices.</i>	<i>These brokers go directly to the farm level to buy.</i>
Why don't you pay better prices?	<i>Fresh fruits and vegetables quality selection generates a significant amount of waste.</i>	<i>Prices for finished products do not provide enough margin if we pay more.</i>
Why are those margins so low?	<i>Production costs are very high in Ecuador.</i>	<i>We do not control foreign market prices and the local market is very competitive.</i>

Another *why* would inevitably highlight the lack of sound management practices in most food processing industries. One of the most limiting aspects is the one that takes for granted the cost of production, then adds the profits a producer wishes, and determines the price at which it needs to sell. When the market does not pay the calculated price, producers stop processing that product.

A mentality transformation is needed to change the above procedure. To establish quality requirements and the price at which the product would sell, producers must begin to analyze the market and the competition, then determine ways to produce required quality at most efficient costs to meet those prices, and finally accept that what is left is profit. If they cannot be competitive and efficient, they will not be profitable. If their product availability is erratic, there will be no stable demand for their product.

Another crucial aspect also claimed by many people in the FP subsector deals with the lack of credit and financing at tolerable interest rates to support their operations. This is a very critical issue and one that cannot be dealt with on a subsectoral basis alone. During the past two years, interest rates have fluctuated between 40 percent and 65 percent, and the exchange rate (sucres per US\$) has not varied significantly, affecting price competitiveness of Ecuadorian products.

Products/Processes and Costs

Products/Processes

Because of time limitations, it is impossible to evaluate labor-related issues in all industries and for all products in the FP/NTAE subsectors. Therefore, general descriptions of food processing processes are illustrated in Annex IV.2 for the following processes:

- preserves, canned fruits, and vegetables
- fruit marmalade and jam
- fruit and vegetable concentrates
- fruit and vegetable juices
- dehydrated fruits

Table IV.5 shows the most significant fruit and vegetable products, and the corresponding export trend since 1990.

Table IV.5

Exports (1990 - 1993)
(Metric Tons)

Products	1990	1991	1992	1993
Fresh Asparagus	44.9	178.8	436.8	417.8
Frozen Broccoli	36.6	859.3	857.4	1130.2
Heart of Palm	603.5	676.9	190.3	132.3
Fresh Lemons	167.0	149.7	23.4	417.4
Fresh Melons	2911.6	3411.5	3547.6	5983.9
Fresh Pineapples	1331.7	1553.9	1550.5	2423.4
Fresh Avocados	10.9	26.2	211.1	820.8
Fresh Mangoes	80.8	146.8	385.9	529.0
Fresh Naranjillas	0.0	1.1	1211.0	1112.2
Fresh Strawberries	272.7	115.5	451.9	871.6
Pineapple Preserves	184.1	366.5	477.5	195.6
Maracuyá Juice	902.8	928.2	2894.7	3874.5
Maracuyá Concentrate	1046.7	1034.0	1318.7	2293.9
Grapefruit Concentrate	1.0	22.4	0.1	153.0
Dehydrated Banana	1073.4	2092.5	2162.0	2235.0
Banana Purée	6823.4	8223.9	11914.1	11972.4

Source: Proexant's Export Statistics Data Base—March 29, 1995

Some interesting situations have been detected. For pineapple preserves, local consumption has increased dramatically, and better quality of pineapples has increased exports of fresh pineapples. Asparagus has a very limited production, and most of it is destined to exports of fresh asparagus. Maracuyá juices and concentrates may have some major difficulties in 1994 because of a significant drop in international prices in 1993.

When the export market for fresh produce is attractive to agricultural producer, food processing plants are not capable of purchasing their needs. When the local market is paying good prices for fresh produce, food processing plants are not capable of purchasing their needs. Therefore, if food processing industries are not willing and/or capable of meeting agricultural producers window prices, they will not obtain the necessary raw materials to produce.

Costs

According to Puga's study, the cost structure for some food processing industries was as follow:

Asparagus	1Kg.(S/.)	0.5Kg.(S/.)
Raw material	52.8%	41.3%
Packaging & Labels	28.3%	39.1%
Processing	18.9%	19.6%
Tree Tomato		0.5Kg.(S/.)
Raw material		34.2%
Packaging & Labels		31.5%
Processing		34.3%
Others	Heart of Palm	Artichoke
Raw material	58%	42%
Packaging & Labels	34%	48%
Processing	8%	10%

As long as processing costs represent less than 15 percent of total costs, no major concern will exist for increased labor productivity. Even for industries where processing costs are as high as 30 percent (with labor costs as high as 50 percent of processing costs), emphasis is placed in raw material costs and packaging costs. These are negotiable costs with suppliers with immediate impact, while processing costs require major managerial skills not found active in the food processing industries.

Although some processors provide some extension services to agricultural producers, most are reluctant to do so because other food processor may end up buying those products and, as one person interviewed expressed, "people are not accustomed to observe their commitments even when a legal contract is signed."

Labor costs are not a significant proportion of total costs, and because most labor is temporary, food processing industries do not perceive the significance of a properly trained work force.

One aspect not considered in this assessment, which could be an important issue for FP/NTAE processing industries to consider, is relabeling products exported with Ecuadorian labels with a different brand in the importing country. If this is the case, Ecuadorian

producers could make additional savings by not labeling the individual products. Some exporters interviewed did not know how to respond when confronted with this question, showing that they had not given any thought to that possibility or that they do not really care what the importer does with the product.

Most of Ecuador's FP/NTAE processing industries are performing their operations because there is a desire to extend shelf life versus exporting fresh and/or because there is no demand for fresh products. Whatever the reason, most operations are primary and the final product is not likely to be differentiated from others. Only firms commanding brand differentiation are perceived different (Delmonte, Welch, Nestle, Maggie, etc.), and much can be learned from Colombian Coffee and Juan Valdéz.

Human Resources and Training

Considering the cost structure for the food processing industry (45 percent-60 percent raw material, 25 percent-35 percent packaging material, and 10 percent-30 percent processing), there is little concern about labor issues, productivity, and the need for trained and qualified workers.

Education and Training

Although most of the workers in the food processing industries never finished high school (a significant number never finished primary education), most firms claim that their workers have the ability to read, write, and learn what is required from their jobs. Most operators of processing equipment have received in-house and on-the-job training, which is estimated to be sufficient for their job requirements.

Table IV.6

Labor Distribution by Occupation and Training²

Area of Occupation -->	Administrative/ Financial	Production	Commercial
Total Work Force	21.4%	49.9%	28.6%
Professionals	58.9%	4.8%	9.9%
Nonprofessionals	41.1%	95.2%	90.1%
General Education	38.6%	48.2%	51.9%
Unqualified	13.6%	35.6%	23.3%
Other Training	23.9%	7.4%	12.0%
Trained for Job	23.9%	8.8%	12.8%
SECAP	—	9.5%	—
Other	100.0%	90.5%	100.0%

Table IV.6 highlights that 35.6 percent of the nonprofessional work force in production-related jobs are unqualified, and only 8.8 percent have received any job-related training. We can also highlight that SECAP has no importance for the food processing industries. SECAP's involvement only accounts for 0.4 percent of the total work force in this sector.

The above information does not agree with Puga findings. The 27 companies analyzed by Puga employed 1,500 workers with 6 percent in supervisory positions and 13 percent in administrative and commercial positions. All remaining workers (81 percent) were in production-related jobs. This apparent inconsistency may be attributed to larger firms included in the Puga study, and further research can explain this discrepancy.

Employment

In most food processing plants only a small percentage of production workers are permanent employees (mostly males). A common practice is to contract workers on a daily basis. When fresh produce are received, the processing plant goes into full operation with employees working more time than required by a normal shift until they finish processing the batch received (sometimes this requires two work shifts of 10 to 12 hours each for as many days as required). When there is no raw material, workers are unemployed.

²Adapted from Diagnóstico de la Pequeña Industria de Pichincha, 1993—Cámara de la Pequeña Industria de Pichincha (CAPEIPI). Although this information pertains only for small industries in the Province of Pichincha, it is the only hard information available and it can be assumed to represent the food processing industries on a national basis.

Also, when a processing plant is capable of employing production workers over longer periods of time, they are laid-off before the three month's trial period to avoid the liabilities and compensations imposed by the labor code. Therefore, most people interviewed did not express having problems with the labor code, as they normally evade it by changing their work force every three months.

Existing information on employment in the FBT sector and the FP/NTAE subsectors is also difficult to combine. According to Table I.4, 17.5 percent of the total work force is employed in the manufacturing sector, which means that for 1993 the estimated work force for this sector is about 463,900. According to a study from the Centro de Planificación y Estudios Sociales (CEPLAES)³, about 22.4 percent of the total manufacturing work force was employed in the FBT subsector as of 1990, corresponding to about 103,000 employees for 1993 if no changes have occurred in the FBT share of total manufacturing. From information published by the Instituto Nacional de Estadísticas y Censos (INEC) for 1991, about 7.1 percent (about 7,300 employees) of the FBT work force is employed in Classifications 3113 and 3121 (see Annex IV.1), where most of the products and FP/NTAE processes we are concerned with are included.

Therefore, the FP/NTAE processing industries comprise less than 0.28 percent of the total work force in Ecuador and less than 1.6 percent of the total manufacturing work force. Even considering the total FBT subsector (including sugar refineries, bottling companies such as Coca Cola and Pepsi Cola, fish and shrimp industries, and vegetable oil refineries), FP/NTAE represents less than 4 percent of total employment. In the absence of sound agricultural policies, future growth of present FP/NTAE processing industries will not provide significant employment opportunities in Ecuador. Excellent opportunities for employment could evolve by developing a sound agricultural base for the FP/NTAE processing industries, and by promoting a more value-added chain with more product diversification in the FP/NTAE subsectors—a major task for the future of Ecuador, but one that could prove decisive for sustainable growth.

Gender Mix

Although the percentage of men employed in food processing firms is significantly higher than that of women, a higher percentage of women work for firms in the Sierra when compared to the ones located at the Coast. Some operations as selection, classification, bottle washing, and labeling are almost exclusively women operations in the Sierra, but not so in the Coast. Coastal cultural factors are biased for women employment.

All machine operations are performed by males, and women are not even considered for these jobs. Some firms claim that most of their female workers are either too young or too old (18 to 20 years old and 40 to 50 years old), especially those firms located near a flower

³Gender, Industrialization, and the Labor Force in Ecuador. Amalia Mauro, Centro de Planificación y Estudios Sociales (CEPLAES), March 1993. USAID contract No. PDC-0100-Z-00-9044-00.

operation and or a banana processing plant. But labor shortages are not of major concern for the food processing industries.

Overall, women represent about 25 percent of the production work force (higher in the Sierra than in the Coast, where production workers are mostly males), and also about 25 percent of the administrative/financial and commercial work force, mainly in secretarial and bookkeeping positions. Most firms in the Coast favor employing male workers without considering productivity-related issues.

If other sectors of the economy expand and demand more labor, any expansion of food processing industries will increase the potential for women participation in these industries. Considering that, besides from the traditional textile industry, the food processing industries are probably the most likely to ever employ women; any increased demand for male labor in other sectors will favor women employment in the FP/NTAE subsectors. But, as long as unemployment and underemployment ratios remain constant or increase, there will be more male labor supply available and trivial opportunities for women.

It is important to note that most of these industries have no proper facilities for women employees. To illustrate, a recent study conducted by Blumberg⁴ states,

In one Quito export vegetable processing plant paying nearly 40 percent above the government's basic wage, one single mother with two girls, 5 and 3, told of coming home at 10:00 PM or later, after unexpected late nights, hoping that her mother or sister had looked in and fed and cared for the children. She has been unable to get reliable evening childcare and has more than once found the two, all alone and unfed, sleeping in each others' arms. One of her co-workers has twin toddlers; when she doesn't get home, her husband must take over. With no telephones, comparably paying jobs hard to get, and an urgent need for income, these women could only hope their childcare arrangements wouldn't collapse.

A 28-year-old woman who works in another fruit/vegetable processing plant in the Quito area has had three children (now 6, 3, and 1-1/2) in the 9 years she has been with the firm. In some months work goes on until 10:00 or 11:00 PM, yet 80 percent of the workers are women, and "the majority are married or single mothers." In nonpeak months, she works until 7:00 PM. She pays a sitter to care for the children until her husband gets home at 5:00; he watches them until she returns. Her income is only slightly below her husband's and he helps with household chores as well as childcare. She had some childcare problems with her first child, but "now my husband is used to it."

Therefore, any future opportunity for women in the food processing industries must contemplate installing adequate facilities and probably some type of childcare arrangement.

⁴Gender and Ecuador's New Export Sector, A Rapid Rural Appraisal Study. Rae L. Blumberg. December 1992.

One plant in the Coast employs only men because when the plant was constructed no hygienic facilities were built for women. This is an absurd argument used only as a smoke screen for ongoing sex discrimination. Before helping processing plants, international assistance should impose basic conditions aimed at eliminating any type of gender discrimination. Ecuadorian firms and the legal system in Ecuador will never contemplate such requirements.

CONCLUSIONS AND RECOMMENDATIONS

- The FP/NTAE subsectors, in the absence of sound agricultural policies and development of a more value-added chain, show no need for more available labor and are not concerned about labor qualifications and training. Industries in both of these subsectors are not yet aware of the significance that quality issues will have in the future as they try to promote more exports and as they try to compete with increasing number of better-quality imported products.
- The most successful nontraditional export products have not needed to develop any type of major marketing efforts to sell their products abroad, and the international market buying mostly fresh and minor processed fruits and vegetables (frozen, concentrates and juices) have not demanded any significant quality assurance from suppliers.
- Brand marketing is not regarded as plausible in the short term for Ecuadorian producers, and not a single NTAE organization has the qualified human resources required to succeed in differentiating their products in the international arena. Benchmarking Ecuadorian FP/NTAE products with other products, such as Goya products in the United States, could be vital for the future. Otherwise, for Ecuadorian producers the quality battle will be fought in Ecuadorian markets on a reactive basis to survive.
- Growth for the FP/NTAE subsectors will depend on development of its agricultural base, increasing availability of fresh produce for processing industries. As of now, product diversification and productive farming are more important from any perspective than any of the existing FP/NTAE processing industries. But, Ecuador needs to articulate a sound strategy for future agricultural production and to consider environmental issues, deforestation, farmland degradation and erosion, protection of ecosystems, and employment.
- With high levels of unemployment and extremely low wages, especially in the rural areas, increased productivity must be on total inputs, placing more emphasis on crop yield per unit of land instead of per unit of labor. This will also favor reducing the level of deforestation and farm land degradation. Product diversification must be supported by adequate research of new high yield crops, increasing output per unit of land as the primary source for productivity growth.

- Education of farm people through effective formal schooling, organized and effective extension activities, and agricultural publications should contribute to the rapid diffusion and efficient use of new technology. Proexant has contributed effectively to promoting NTAE, and more should be done to properly diffuse its publications and manuals.
- Transportation improvements should reduce the cost of industrial inputs and the cost of marketing. Other improvements in rural areas, as communications (mail and telephone), should exert a veritable impact on agricultural productivity. The future of the FP/NTAE subsectors will depend on adequately dealing with these issues.
- The Labor Code should be changed to a flexible and easy-to-administer code, that responds to the needs of present and future strategic development of the agricultural sector. Ecuador's agricultural sector must not be forsaken, and lessons from the Venezuelan oil-boom experience must not be ignored.
- Ecuador's petroleum benefits should be distributed in a more equitable way by reducing the hardships placed on urban areas because of migration from the rural areas and villages and by providing a better quality of life and opportunities in those areas. Government funding for education, agricultural research, and infrastructure must be increased and must effectively reach those areas.
- Ecuador's Institute for Norms' (INEN) role should become more transparent and more professional, granting registrations and certifications only when products meet requirements and conducting ongoing verifications for all registrations and certifications granted. Consumers lack of trust on INEN performance is one of the most critical issues concerning quality and one that must be dealt with immediately. Consumer protection groups and organizations must be supported as they must develop capabilities to accomplish their objectives.
- Ecuador's legal system must be reformed to a more just and expeditious system. Commercial transactions cannot be effective with all the legal documentation and requirements imposed by an outdated legal system, conceived to justify the services of lawyers in every stage. This is probably the greatest barrier in attracting foreign investment and one of the most significant social costs, probably only surpassed by the inefficient and ineffective formal educational system.
- The Government of Ecuador will undoubtedly need to support many activities through existing or reformed governmental institutions, but it must be cautious not to boost bureaucracy and inefficiency by increasing employment in these institutions. Agricultural research services and many other support activities can and should be contracted with nongovernmental organizations. To illustrate, if present governmental efforts to promote Ecuadorian exports contemplate creating and staffing new organizational units at the Ministry of Industry, these efforts will result in a complete failure. Instead, only an administrative unit should be staffed to administer funding, and all activities and services should be contracted outside.

ANNEX IV.1
INTERNATIONAL INDUSTRIAL UNIFORM CODE (CIIU)
CODES FOR FOOD PROCESSING, BEVERAGES, AND TOBACCO

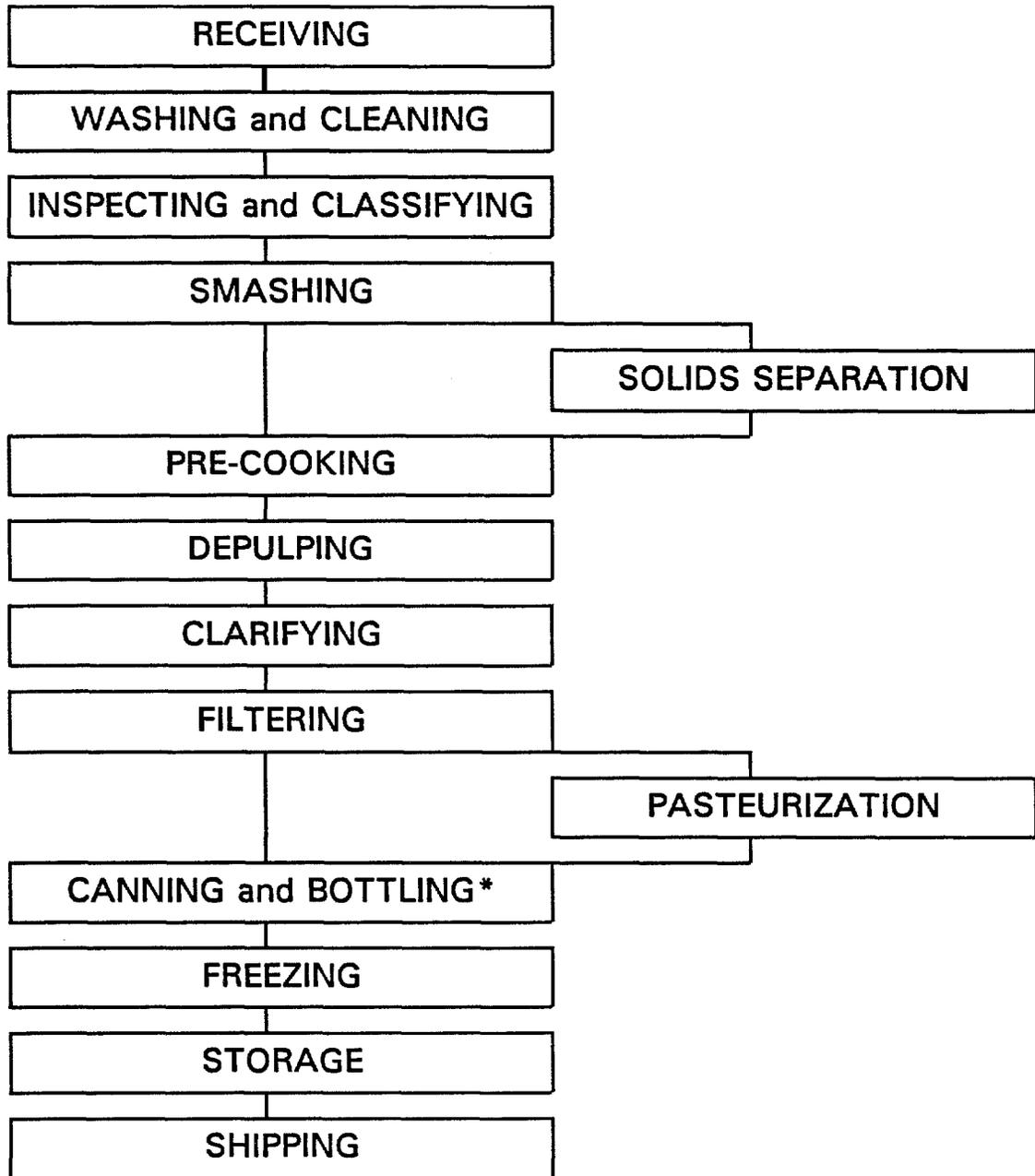
Div.	Group	Code	Description
31			Productos Alimenticios, bebidas y tabaco
	311		Fabricación de productos alimenticios, excepto bebidas
		3111	Matanza de ganado y preparación y conservación de carne: <i>Mataderos y firogríficos; establecimientos dedicados a la matanza, preparación y conservación de carne de vaca, cerdo, oveja, cordero, caballo, ave, conejo y caza menor. Se incluyen las operaciones de elaboración y conservación, tales como curado, ahumado, salado, conservación en salmuera o vinagre y enlatado en recipientes herméticos, y las de congelación rápida. También se incluye la preparación de tripas para embudidos, de sopas, budines y pasteles de carne y la extracción y refinación de manteca de cerdo y otras grasas animales comestibles.</i>
		3112	Fabricación de productos lácteos: <i>Fabricación y elaboración de mantequillas y quezos; fabricación de leche condensada, en polvo y evaporada; crema fresca y conservada; helados, sorbetes y otros postres de leche congelados, y otros productos lácteos alimenticios. También se incluye la elaboración (pasteurización, homogenización, vitaminización y embotellado) de leche líquida para la distribución al por mayor o al por menor.</i>
		3113	Envasado y conservación de frutas y legumbres: <i>El envasado (en recipientes herméticos) de frutas y legumbres, incluidos los jugos de frutas y legumbres; elaboración de pastas y frutas secas; conservas, mermeladas y jaleas; encurtidos y salsas; sopas enlatadas, y deshidratación y congelación rápida de frutas y legumbres.</i>
		3114	Elaboración de pescados, crustáceos y otros productos marinos: <i>Comprende el proceso de salar, secar, deshidratar, ahumar, curar, conservar en salmuera y vinagre, envasar o congelar rápidamente pescados, camarones, ostras, almejas, cangrejos y otros productos marinos, y los barcos-factoría que se dedican a la elaboración de pescado y productos marinos únicamente, cuando se pueden considerar como establecimientos separados. La conservación en hielo, salazón, preparación en filetes y elaboración de la pesca y de otros productos marinos a bordo de los pesqueros y barcos-factoría, salvo la excepción descrita, se clasifican en el grupo 1301 (pesca de altura y costera) o en el 13002 (pesca, n.e.p.) según el caso.</i>
		3115	Fabricación de aceites y grasas vegetales y animales: <i>Se incluye la producción de aceite crudo, tortas y harinas de semillas oleaginosas y nueces (incluido el aceite de oliva), obtenidos por trituración o extracción; la extracción de aceites de pescado y otros animales marinos y la producción de harina de pescado; la clarificación de aceites y grasas animales no comestibles, y la refinación e hidrogenación (o endurecimiento) de aceites y grasas, excepto la manteca de cerdo y otras grasas comestibles del ganado, y la producción de margarina, grasas compuestas para cocinar y aceites mezclados de mesa o ensalada. La fabricación de manteca de cerdo y otras grasas comestibles animales está incluida en el grupo 3111 (Matanza de ganado, preparación, envase y conservación de carnes)</i>
		3116	Productos de molinería: <i>Los molinos harineros y otros que elaboran productos tales como harinas y forrajes; el proceso de descascarar, limpiar y pulir el arroz; cereales preparados para el desayuno, tales como avena, arroz, copos de maíz y copos de trigo; semillas secas de leguminosas; harina mezclada y preparada, y otros productos a base de cereales y leguminosas. Los molinos para descascarar café y para mondar leguminosas y raíces están incluidos en este grupo. Los alimentos preparados para animales y aves figuran en el grupo 3122 (Elaboración de alimentos preparados para animales).</i>
		3117	Fabricación de productos de panadería: <i>La fabricación de pan, tortas, galletas, rosas, pasteles, pastas y otros productos de panadería que se deterioran con facilidad; bizcochos y otros productos "secos" de panadería, y macarrones, fideos, tallarines y otras pastas.</i>

	3118	Fábricas y refinерías de azúcar: <i>La fabricación y refinación de azúcar en bruto, jarabes y azúcar cristalizada o granulada, de caña o remolacha.</i>
	3119	Fabricación de cacao, chocolate y artículos de confitería: <i>La fabricación de cacao y chocolate en polvo a base del grano del cacao; chocolates y toda clase de artículos de confitería, tales como dulces cocidos, caramelos, dulce de malvavisco, de chocolate, pastillas y confites blandos; frutas confitadas; nueces azucaradas, nueces saladas, dátils rellenos y productos análogos, y goma de mascar.</i>
312		Productos alimenticios diversos
	3121	Elaboración de productos alimenticios diversos: <i>La fabricación de productos alimenticios no clasificados en otra parte, tales como almidón y sus derivados; levadura en polvo; extractos para dar sabor a los alimentos; levadura; condimentos, mostazas y vinagres; desecación, congelación y separación (de la clara y la yema) de huevos; mollienda de especies; tostado de café; transformación de las hojas de té en té negro; sal refinada de mesa, y recogida y almacenamiento de hielo natural y fabricación de hielo excepto el hielo seco. La fabricación de hielo seco se clasifica en el grupo 3511 (Fabricación de sustancias químicas industriales básicas).</i>
	3122	Elaboración de alimentos preparados para animales: <i>La producción de alimentos preparados para animales y aves, incluidos los productos para perros y otros animales favoritos, y los productos especiales mezclados, enlatados, congelados o secos.</i>
313		Industrias de bebidas
	3131	Destilación, rectificación y mezcla de bebidas espirituosas: <i>La destilación de alcohol etílico, excepto de los residuos sulfúricos de la fabricación de pasta de papel, para todos los usos. La destilación, rectificación y mezcla de bebidas alcohólicas, tales como whiskey, coñac, ron, ginebra, cordiales y mezclas (cocktails). La fabricación de alcohol, salvo el alcohol etílico incluido aquí, figura en el grupo 3511 (Fabricación de sustancias químicas industriales básicas). El embotellado, cuando no incluye la mezcla, elaboración y fabricación de bebidas alcohólicas, figura en el grupo 6100 (Comercio al por mayor).</i>
	3132	Industrias vinícolas: <i>La fabricación de vinos, sidra de manzana, sidra de peras y otras bebidas fermentadas, exceptuando las malteadas. El embotellado cuando no incluye la mezcla, elaboración o fabricación de vinos o bebidas alcohólicas similares, figura en el grupo 6100 (Comercio al por mayor).</i>
	3133	Bebidas malteadas y malta: <i>La fabricación de maltas y bebidas malteadas, tales como cerveza corriente, pálida, negra y fuerte. El embotellado, cuando no incluye la fabricación de malta o bebidas malteadas, figura en el grupo 6100 (Comercio al por mayor).</i>
	3134	Industrias de bebidas no alcohólicas y aguas gaseosas: <i>La fabricación de bebidas no alcohólicas, tales como las bebidas refrescantes de sabor a frutas y gaseosas, y las aguas minerales gasificadas, y el embotellado de aguas naturales y minerales en la fuente.</i>
314		Productos del tabaco
	3140	Industrias del tabaco: <i>La fabricación de productos del tabaco, tales como cigarrillos, cigarrs, picadura, tabaco para mascar y rapé. También se incluye el desvene, la resecación y otros trabajos, efectuados después de realizadas las subastas, relacionadas con la elaboración de la hoja que se emplea para fabricar tabaco.</i>

Because of time limitations, this assessment only considers food processing industries for which fresh fruits and vegetables are the raw material required, and that the final product is marketed based on its content of the raw material processed. This is not necessarily restricted to the above CIU classification.

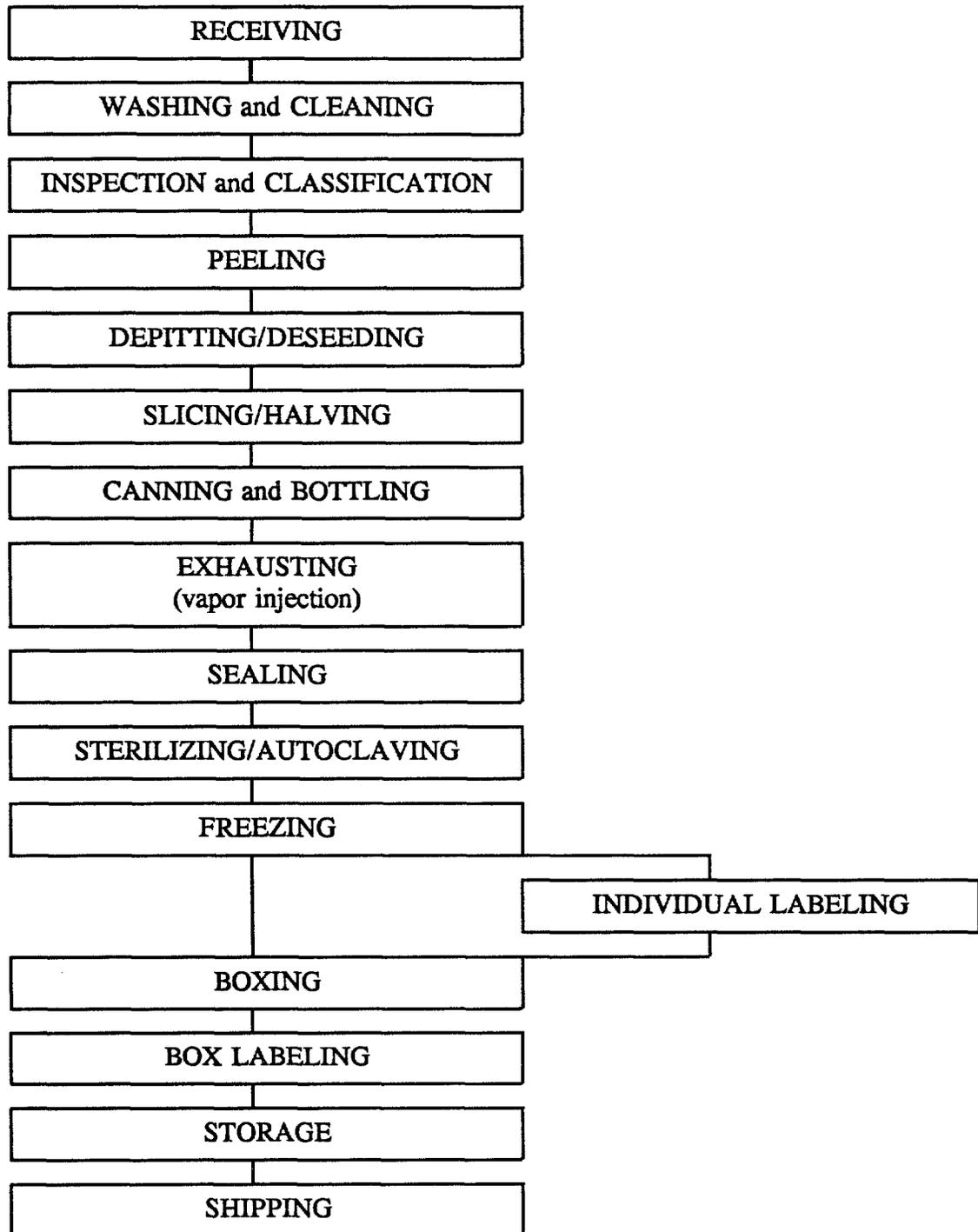
ANNEX IV.2
VARIOUS PROCESSES IN FOOD PROCESSING INDUSTRIES
Fruit Pulp and Paste

(apple, babaco, guayaba, tree tomato, tomato)

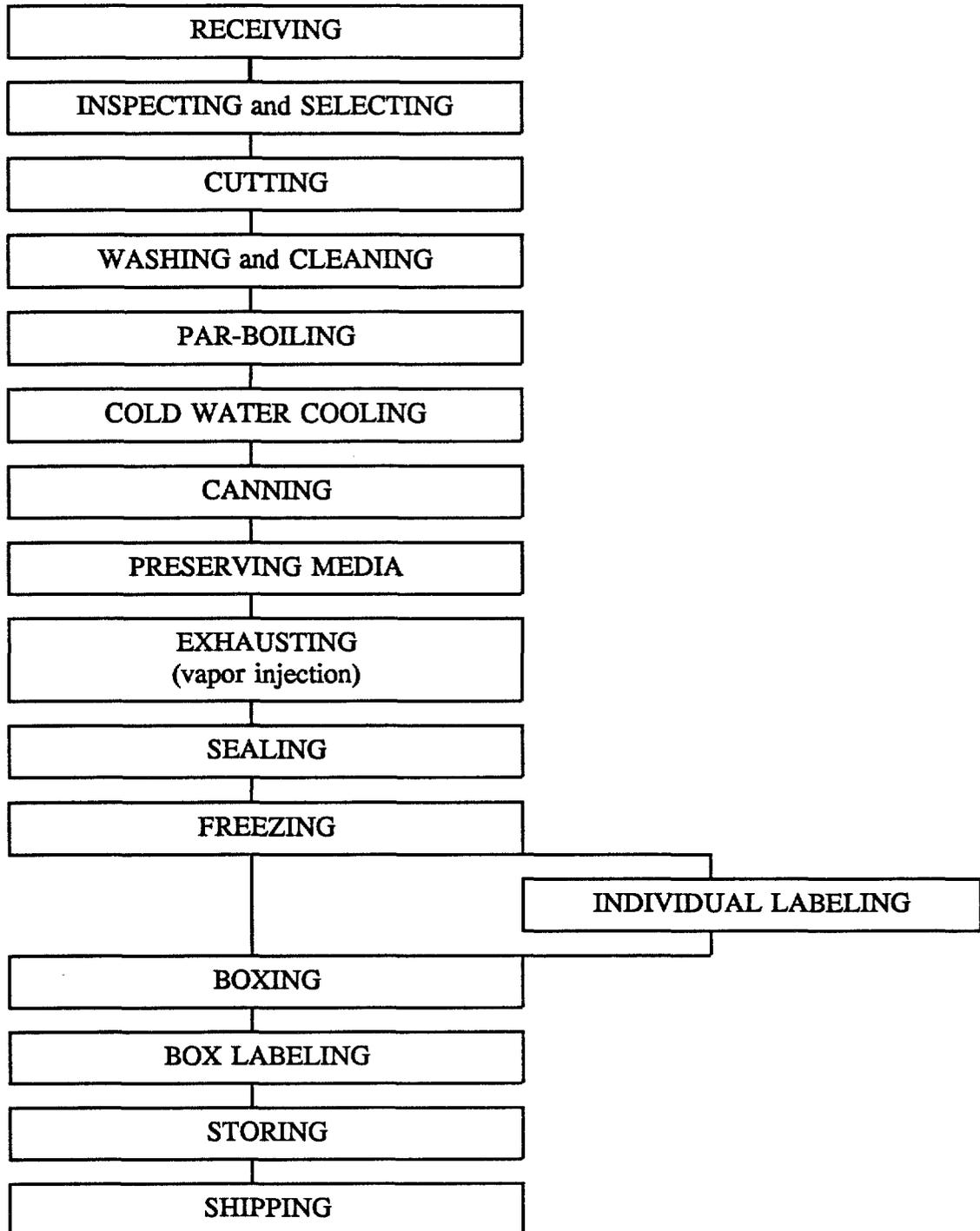


* Tomato paste is evaporated and concentrated before canning or bottling. Tomato and other sauces include spices and flavors.

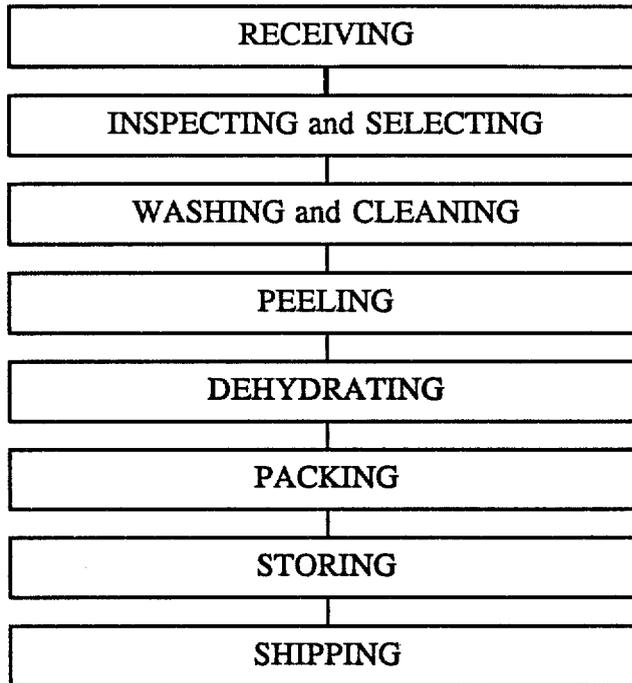
Fruit and Vegetable Preserves
(tree tomato, babaco, peaches)



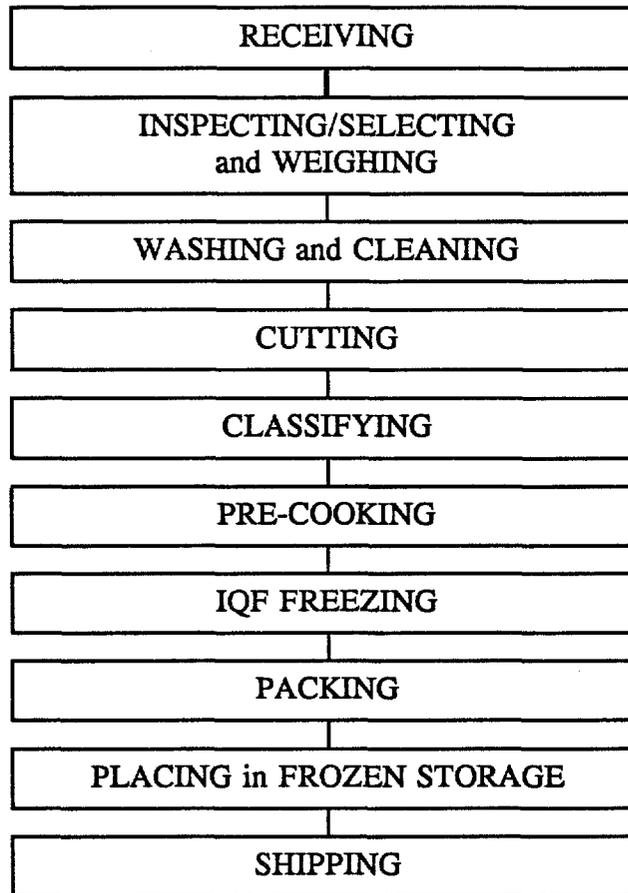
Canned Vegetables
(asparagus, heart of palm)



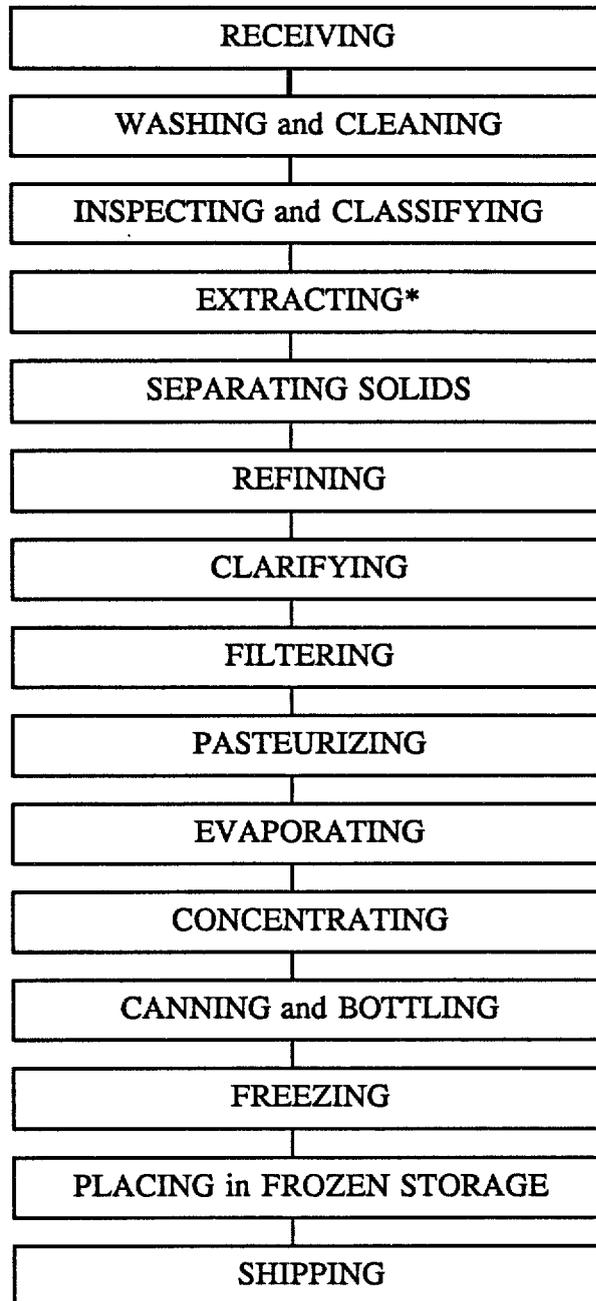
Dehydration of Fruits and Vegetables



IQF Freezing of Fresh Produce



Juices and Concentrates
(maracuyá, orange, pineapple)



* Extraction varies for pineapples and oranges. Pineapples must be first peeled. Oranges require removal of outer skin to avoid its oils and bitterness.

ANNEX IV.3 COMPANIES INTERVIEWED

Company Name	Position
AMERICAN AIRLINES Juan Andrade	Sales Department
BANCO INTERAMERICANO DE DESARROLLO Jorge Torres	Sector Specialist
BANCO CENTRAL DEL ECUADOR Patricio Ruiz	Statistics
BANCO CONTINENTAL Sergio Muños	Marketing Manager
CAMARA DE PEQUEÑAS INDUSTRIAS Dr. Rafael Bejarano	Vice President
COMERCIAL INDUSTRIAL AGRICOLA Bárbara Sanchez	Personnel Manager
CORPORACION FINANCIERA Ing. Jose Guerra	Projects Office
CAMARA DE COMERCIO Sonia Rivadeneira	Training Coordinator
CITRISUR Cesar Ubidia	Marketing Manager
CAMPOS VERDES Juan Vergara	President
COMNACA Gonzalo Moya	Administrative Manager
CAFE PRES-2 Fernando Martinez	General Manager
CHOCOLATES PERUGUINA Fernando Martinez	Manager
ECUAJUGOS Rudolf Walter Omar Figueroa	General Manager Agricultural Manager
ECUAVEGETAL Francisco Larrea	General Manager
ECUAQUIMICA Manuel Donoso	Sales Manager

Company Name	Position
FUNDACION ECUADOR Ing. Com. Pedro Aguayo	Executive Director
FUEGO VERDE Luis Holguin	General Manager
GUSTADINA Jorge Burneo	Agricultural Manager
INDUSTRIAS ALES Klein Wolfgang	Legal Representative
MOLINOS DEL ECUADOR Jacinto Alvear	General Manager
NESTLE Manuel Pulido	Manager
PALMITOS BORBON Mauricio Acuavivas Jorge Cecchini	President Technical Coordinator
PROEXANT Quito: Ing. Marco Peñaherrera Guayaquil: Cecilia Robles	Executive Director Administrative Manager
PRODUCTOS PASCUAL Juan Vergara	Marketing Manager
QUICORNAC Bernard Frei	Manager
REPEC Gonzalo Romero	General Manager
SIPIA (SNOB) Ing. Guillermo Narvaez	President
VIÑEDOS ANDINOS Luis Holguin	Owner

CHAPTER V METAL FABRICATION

OVERVIEW

The metal fabrication sector of the Ecuadorean economy was developed in the 1960s when Latin American countries decided to change their product base. In its infancy, the metal fabrication industry was assisted by Swiss, German, and U.S. agencies. A number of financial incentives were offered by the Government of Ecuador (GOE) to assist in the development of the incipient industry. Training institutions were developed with the assistance of the GOE and with foreign countries.

This study concerns itself with companies in the formal sector that were included in the Corporation Ecuatoriana de Bienes de Capital (CEBCA) directory that lists 970 companies in the sector in 15 cities and 11 provinces and represents over 12,000 workers in the sector. The automotive sector was included to broaden the scope of investigation and give a more accurate breakdown of the requirements over the whole of the sector. In total, 26 formal private sector interviews were conducted, representing 2,200 workers from entry level to senior management positions. In addition, information was gathered from relevant Chambers of Commerce, training institutions, and the trade associations for the sector, by interviewing the senior management of those institutions with the objective of determining the sector's requirements for training, skill development, competitive ability in the world markets, and its preparedness for further development.

DESCRIPTION OF SECTOR

Products

The sector spans the whole spectrum of capital products from the manufacture of simple metal products, such as steel fencing, extruded profiles, and metal storage tanks to the construction of weighing equipment, metal and woodworking machinery, and complex electromechanical and vehicle assembly. These product types reflect product groups that fall into more than 600 subproduct headings and innumerable and diverse individual items serving all levels of industrial and private sector use. (See Annex V.5 for a complete table of subsector product ranges. Within this sector, there are state-controlled, private formal (registered), and private informal (unregistered) companies.

Processes

While there are many and varied products produced within the sector, the core processes and competencies fall within standard classifications by operational level.

- At the production level, several types of workers are needed: warehouse workers, preparers (graders/cutters/weighers/allocators), welders, mechanics (electric/mechanical), assemblers, painters, quality controllers, and dispatchers.

- At the administrative level required skills are in production planning, production control, and management.
- The processes that are followed by the companies working within the sector follow several processes: receiving material, allocating production, machining, assembling, painting, quality checking and testing, and despatching and delivering.
- The standard process also requires that qualified people have skills in: marketing, design and drafting, robotics, and management.

Markets

Contrary to the perceptions of the Chambers of Commerce and the gremios with respect to the developing of the exports within the sector, 50 percent of those companies in the sector conducted 100 percent of their business domestically with no intention of expanding into other markets.

The sector services a number of markets locally and within Latin America. The principal markets are Colombia and Venezuela, which account for 48 percent of the total exports undertaken by 40 percent of the companies in the study. Peru and Brazil were considered as growth and development markets, and of the companies assessed, 20 percent were actively trading in those countries. Though close neighbors were considered the principal export markets, trade is also conducted with the United States, Europe, and Caribbean countries. Within the national market competition is high due to the volume of contraband goods and lower priced items from near neighbors.

HUMAN RESOURCES

Educational levels

Those companies visited showed that 82 percent of the entrants into these sector companies had received a formal education, with 54 percent achieving a high school education or diploma. Of the entrants to the sector with lower levels of education, 36 percent had only an elementary education only and 1 percent of the entry-level group was illiterate. University education only pertained to the senior management, owners, and key technical positions. The people in this category accounted for 9 percent of the people employed in the companies interviewed. All of the companies expressed dissatisfaction with the educational standard achieved by school leavers and the lack of a curriculum that would make the students aware of industry and business needs. Also of concern were the number of students between the ages of 10 years and 15 years leaving full-time education and the lack of awareness of training opportunities for women. One of the companies interviewed had instituted a scholarship program in the local school and mentioned that although 50 percent of the successful candidates were women, none of them had taken advantage of this program.

Gender Mix

In the metal fabrication sector of Ecuador, males and females are distinctly split. Women normally work in secretarial positions and office administration with the occasional woman working in the management of finance departments or in legal positions. Within the administrative and secretarial positions, women accounted for 14 percent of the total work force. Women work in greater numbers in production environments, in the assembly areas of white goods, and in delicate or complex assembly operations. Although there are no perceived gender bias and 60 percent of the companies indicated that they would be happy to employ more women, training opportunities currently did not exist to increase women's awareness of the possibilities available in this sector.

SALARY LEVELS

The pay levels within the sector varied dependent upon the type of operation, categorized as large, medium, and small. These operations were subdivided into state run or private with a subsequent split of the private operations into formal and informal. From a management point of view, wages were not considered a problem as 100 percent of the companies interviewed were paying more than the national legal minimum. The wages in the following table are the average wages for the sector as indicated by those companies in the study and are expressed in sucres per month. When figures were given in US\$, a conversion rate of s/2250 per dollar was used.

Level	Minimum Wage	Companies' Pay
Operator	s/143,000	s/562,150
Supervisor	N/A	s/1,100,000
Manager	N/A	s/1,500,000
Executives	N/A	s/4,500,000

SKILL REQUIREMENTS

Numbers

Companies were unable to calculate a figure for this category since the advances in new technologies could result in the reduction of personnel. However, they could calculate their own growth rate projections of between 20 percent and 40 percent. The people interviewed, though well educated (all with university degrees) had never had the type of management training required to understand and evaluate personnel requirements. This indicated a requirement for training in qualitative and quantitative techniques. Because of the paucity of these skills, the calculations for increments in personnel have historically been on a purely percentage basis according to their previous operational requirements. The chart below shows a growth extrapolation in people required by the sector based upon interviews and patterns

over the past three years as identified in the Instituto Nacional De Estadistica Y Censos (INEC).

**Formal Sector Growth Projections
Personnel**

Sector	1990	1992	1993 Estimates	1995 Projections	Projections from Interview
Auto Industry	2,012	2,548	2,984	4,038	3,794
Metal Forming	14,285	16,000	18,000	21,645	19,520

Note: The 1990 and 1992 figures come from the INEC publications. The 1993 figures are estimates from INEC and CEBCA. The 1995 figures are projections based upon 1990 to 1992 growth and 1993 estimated growth. The projections from the interviews are the average estimates applied to the 1993 estimates.

Abilities/Qualifications

Technical

In operational areas, companies representing 54 percent of the sample sector require high-level, high-accuracy production welders of various metals and CNC machinists and controllers. Companies representing 27 percent of the sample sector required skilled personnel in controlled environment painting mechanics with electronics specialization.

Assemblers and chemists were also required, but these positions constituted only 18 percent of the surveyed group. All of the companies in the study said that although training was available from institutes such as Servicio Ecuatoriano de Capacitacion Profesional (SECAP), the training offered did not coincide with their requirements. Further, companies indicated that instructors responding to newspaper advertisements were as capable as those from SECAP. To resolve this problem, the companies have instituted in-house training programs, which had contributed to their operational costs. The training institutions, including SECAP, were considered to be providers of, at best, entry-level employees. To quantify this 85 percent of the companies in the study said that the institutions were ineffective and had many disadvantages, including the poor educational quality of the teaching staff. Additionally 74 percent of the companies interviewed had no faith in the same institutions being able to meet any demands for personnel given future growth in the market sector. (See Annex V.7 for chart reflecting the responses of interviewees about training needs.)

Administrative

About 63 percent of the surveyed companies indicated that the quality and quantity of people in supervision and management were inadequate because of lack of formal management training. The principal problems encountered by the surveyed population were those of limited skills in human resource management, lack of will in decision making, lack of conscience about the quality of the product that was being produced, poor planning

capabilities, poor control of production environments, inadequate confrontation skills, and complete lack of accountability or responsibility. Most of these problems could be alleviated with production environment and management training. The more specific problems of lack of initiative and conscience should be addressed at a school level and should form part of a concerted effort to improve the attitudes and understanding of required workplace practices.

Management Relations

In 100 percent of the companies interviewed, top management perceived no problem among themselves, their management and the workers. Inconsistent with these responses were additional comments reflecting the competence of some managerial levels and the need to train and improve their human resource management and production management skills. No workers at supervisory levels or lower were interviewed in the analysis, which may have changed the perception and indicated deficiencies in communications between these levels and the managerial group.

CONSTRAINTS TO DEVELOPMENT OF SECTOR

Human Resources and Training

The responses from the senior management of the companies visited indicated that the workers had no conscience, took no responsibility, had no pride in their work, and did not care about finished product quality. This causes both short- and long-term problems in the overall product credibility and forces customers to find alternative suppliers. This self-inflicted problem could be resolved by increasing product awareness among employees and by helping them through training to understand the reasons for quality in the marketplace, its costs, and its benefits. The sales growth in this sector of the market is estimated by the companies interviewed to be at a rate of 36 percent per annum with an employee growth of between 0 percent and 5 percent. Training organizations such as SECAP are already set up to provide general training to those wishing to enter this sector; however, they require focusing on the specific needs of the sector. Additionally, and perhaps more importantly, there needs to be a major cultural education change in Ecuador to ensure a higher level of education and a higher school leaving age. This would result in a better-trained and ready work force able to be employed within the sector. Also, educational methods to help understand and remove discrimination against the Indian sector of the community would give advantages to that sector and result in a greater labor pool for use in the industry.

Management Relations

The problem in management relations is one of training. Management skills in production planning, problem solving, and technological aspects of production are low. There is little awareness at a senior management level of the problems confronting their operational levels. Of the companies interviewed, only 35 percent said that there was worker participation in the selection of training, most of the training being standard induction training and management-selected courses based upon its perception of needs. (See Annex V.6 for an outline of the type of structured training modules required to resolve this problem.) Also, in this sector 89

percent of the companies interviewed said that there was no communication with training institutes to determine course composition.

Material Resource Constraints

The material resources of Ecuador do not meet the needs of this sector. The sector is, principally, a manufacturer/assemblers of imported products for sale within the domestic market or for further export. As a consequence of these imports, all of which carry tax duties, there is a cost impact upon production competitiveness. In response to this, low-quality products are tolerated, which in the long term may damage the sector's image concerning its ability to produce world-class goods and further impair its opportunities in capturing lucrative markets. The imported volume of raw materials required to sustain current output levels is between 34 percent and 68 percent. Further, theft of these components at customs depots constitutes 100 percent loss of production in those items.

Legislation

The constraints of legislation are bureaucratic and perceived as indecisive. There appears to be no governmental industrial policy (it is at present being completed), which indicates a lack of direction leading to an unstable climate for expansion or development. This has been reflected in the interviews where the projected growth was estimated at 12 percent per annum over the next three years compared with 40 percent per annum for the previous three years. With imports both inside and outside the Pacto Andino tariffs, there are no limitations or restrictions, which were considered prohibitive. There are two based upon weight and value, which are variable by product and country of origin. These de-restrictions are seen as a problem only in as much as better quality, less expensive goods are creating a highly competitive domestic environment. Exports suffer only from the frustrating and time-consuming method of obtaining the necessary authorizations, the number of departments that have to be visited, and the paperwork. Once this has been completed, there are, as with imports, few restrictions. The exceptions to the lack of restrictions are within the petrochemical industry, which is Government controlled.

CONCLUSIONS

Companies that showed vision and a systematic approach to the problems of the market in terms of competition and the quality of training were the multinationals and those producing goods to European, U.S., and Asian standards. Almost exclusively, these companies have been trained from outside and have used the most modern of training techniques. These companies, together with the GOE and private institutions, could form the nucleus for a training institute offering practical experience within participating sector companies. This facility could also be actively engaged in the analysis of the sector needs based upon the conditions of the national market and the world markets. Such formal links with the GOE institutions for the continued and continuous validation of the sector training needs must be developed. In addition, the problems of basic education require a complex mix of reforms, private investment, and Government assistance. The only identified reforms were those addressing teacher training, the supply of additional teaching materials, and a proposed

increase in the number of schools while curriculum modifications were apparently ignored.

A number of weaknesses in the sector are attributed to the vagaries of the training programs of both private and public institutions. Other problems are more difficult to resolve. Specifically, the lack of raw materials to develop and sustain an indigenous heavy industry causes companies to import materials and components from outside, thus eroding their ability to compete in global markets. Manufacturing facilities in Ecuador need to be developed to produce those components and engage in a structured plan of import substitution. The lack of heavy industry in the country and the need to import a substantial volume of components to complete assembly operations have led to a level of import dependency of about 34 percent. Countries that have succeeded without raw materials, such as Japan, invested heavily in mechanization and technology, enabling them to produce high volume, quality products at a lower cost than their worldwide competitors.

The opportunities in the sector are mainly due to the relaxation of import/export regulations and the special terms for financing. These, however, will not be sufficient unless there can be a substantial growth in the productive output and an improvement in the quality of the products being produced to make them competitive in the domestic market into which low-cost, high-quality products are increasingly entering. Also, to be competitive within the Pacto Andino, the sector has to compete on price with Colombia, which is its principal nonrational competitor. To take advantage of the opportunities will require capital investment in training and machinery to mechanize manual operations that are costly and economically inefficient to increase volume and reduce manufacturing costs and inefficiencies.

Other constraints to the development of the sector are the protective labor laws, which restrict employers ability to easily remove inefficient workers and replace them with more highly skilled or productive workers. Also, but to a lesser degree, wage structures and levels encourage workers to seek work in the higher-paid sectors, such as the petrochemical industry. Although the work in this industry is hard and the workers are away from home, they have a rotational four-week-on, four-week-off cycle, which, coupled with pay levels three to four times that of other parts of the sector, provides a substantial inducement. The strengths of the sector are in the availability of the people in the market place ready to be trained, the diversity of products produced, and the willingness of companies to expand, given sufficient incentives and information. An example of a sector willing to grow, but fettered by GOE policy, is the steel and aluminum subsector where there is a reluctance to supply to the largest purchaser in the country, the GOE, because of its payment practices. This, in turn, requires the GOE to purchase outside the country, which reduces national sales and adds to the level of competition increasing the trading difficulties in the domestic arena. Unless the Government acts swiftly with industry to produce a cohesive and realistic growth plan, this country will, according to Grindle and Thoumi in Bates and Krueger (1993), stumble into the next century with a small proportion of the population benefiting from the re-engineering of their operations while the majority of the country stagnates with increasing unemployment, an increasing population of disenfranchised persons with low levels of education increasing volumes of illegal immigrants, being led by subsequent Governments that lack the initiative or vision to remedy the situation, and accepting handouts from the world's organizations disposed to helping such countries. When the lack of investment in

public access utilities becomes the rule rather than the exception because of the unwillingness of the GOE to institute policies that will benefit the poorer levels of Ecuadorean society and eliminate discrimination against sectors of the population, the step change in behavior necessary to produce world class goods will be difficult to achieve. (See Annex V.1 for summarized list of the problems confronting the sector.)

RECOMMENDATIONS

The following is a summarized list of recommendations that appear in the sector analysis.

- Establish manufacturing policy standards for the industry sector.
- Ensure that standards throughout the sector are understood and complied with.
- Develop a product substitution program.
- Establish component manufacturing industries.
- Investigate and develop mineral resources for establishing on indigenous industry.
- Develop an in-house training program for industry-specific needs, both in management and technical requirements.
- Restructure CEBCA to be more autonomous and effective within its sector industries.
- Develop an information, sharing, cross sector advisory body from the existing gremiales and Chambers of Commerce to identify product and market opportunities.
- Privatize the SECAP facility enabling it to be more flexible in reacting to sector needs.
- Establish basic education-level requirements for school leavers.
- Set up an export advisory body linked with the sector Chamber of Commerce and Fundacion Equador.
- Incorporate quality ideology into school and institutional training programs.
- Develop the ISO9000 methodology countrywide by use of GOE labor ministry resources.
- Make GOE military business ventures accountable for performance.
- Remove restrictive competition from military-controlled companies.
- Focus on small and intermediate businesses.
- Target the labor force of women to encourage their entry into high-tech assembly operations.
- Modify GOE contracts to allow payment to suppliers of "finished" products to be effected prior to project completion.
- Develop training programs for women at school level to promote career development in the sector.

CAVEATS

Information supply for the labor projections comes from three different sources: INEC, the national institute that has a greater depth of investigative resource; CEBCA, the semi-Government formal sector commission covering capital goods; and the companies operating in the sector. Because of the lack of up-to-date information, the latest being 1992, a "best guess" average has been taken from a combination of the above.

ANNEX V.1 PROBLEM LIST

TRAINING OPPORTUNITIES

- Inadequate communications
- Obsolete processes
- Poor management skills
- Lack of will to accept decision making
- Inadequate communications between education and business
- Insufficient understanding of world markets
- Few national quality awareness programs
- Low levels of practical tuition
- Lack of training in purchasing
- Lack of several types of skilled workers
 - welders
 - painters
 - assemblers
 - cnc operators
 - robotics technicians
 - technical administrators
- Insufficient training institutes
- Lack of sector specific training
- Lack of matricaria school (die/mold makers)

DEVELOPMENT OPPORTUNITIES

- Poor development of natural resources
- Insufficient raw materials
- Low levels of product substitution
- Ineffective use of mechanization in production
- Lack of authority by CEBCA to implement solutions
- Limited technological development
- Obsolete machinery
- Technical inability to satisfy markets
- Ineffective industry ministry
- Flat growth
- Lack of quality bench marking against national or international competition
- Derestriction of imports
- Lack of private sector or GOE investment for sector market development
- Difficulty in managing pay system
- High energy costs
- Lack of GOE to paying sales tax on purchases, causing unfair competition

- GOE circumvention of domestic purchasing policy by insisting on quality standards
- Inflation causing price increases of domestic products allowing GOE to purchase outside country
- Theft of exported components from customs areas
- Contraband sales undermining domestic sales
- Removal of restrictions or impediments imposed by company registration requirements
- Removal of unfair competition from army businesses
- Poor communication between institutions and private sector companies
- Dependence upon imported goods, raw materials, and components

ANNEX V.2 ACRONYMS

GOE	Government of Ecuador
ASOMETAL	Asociación Nacional de Industriales Metalmecánicos de Ecuador
AEALC	Asociación de Economistas de América Latina y El Caribe
MATRISA	Matriceros Industriales
CEBCA	Comisión Ecuatoriana de Bienes de Capital
INSOTEC	Instituto de Investigaciones Sociológicas y Técnicos
CKD	Completely Knocked Down
HRD	Human Resources Development
ICAPI	Instituto de Capacitación de Pequeñas Industrias
CAPEPI	Cámara de la Pequeñas Industrias de Pichincha
PROFOPEMI	Programa para el Fomento de la Pequeñas Empresas Metal Fabricación
IAA	Industria Acero de los Andes
MARESA	Manufacturas Armaduras y Respuestos
ANIBAL	Constructora Ing. Anibal Santos e Hijos
CINAE	Cámara de la Industria Automotriz Ecuatoriana

ANNEX V.3 CONTACTS

Raul Mendizabal	MATRISA	Director
Econ. Carlos Carrion	CEBCA	Consultor
LCDO. Cesar Erazo	COBATOSI S.A.	Gerente Adm./ Fin.
Ing. Fausto Ayala	CEBCA	Executive Sec.
Augusto Celin Pazos	ASOMETAL	President
Nancy Silva Fuseau	MARESA	Subgerente Fin.
Ing. Cesar Baez	CEMPI	Gerente General
Ing. Jimmy Baez	CEMPI	Director
Luis Manosalvas	ASOMETAL	Relaciones Pub.
Guillermo Alvarado	ASOMETAL	Ex Pres.
Augustin Polit	MARESA	Rec. Humanos
Patricio Lozada	PROFOPEMI	Asesor Tecnico
Juan Kohn	IDEAL	Exec. President
Alejandro Villavicencio	IAA	Ger. Adm. Fin.
Hugo Martinez R	CAPEPI	Secretario
Roberto Santos	ANIBAL	Dueno
Ricardo Delfini	DELTA DELFINI	Ger. General
Econ. Roberto Sales	ETERPLAST	Ger. General
Bolivar Alban	ETERPLAST	Gerente Prod.
Dr Gonzalo Clavijo	PLASTIGAMA	Ger.Rec.Hum.
Ing. Narvaez	SECAP	Director

Econ. Fernando Diaz	FISA	Presidente
Ing. Ignacio Kozhaya	FISA	Ger. Prod
Mahmud	Equatorial Tech.	Dueno
Ing. Jorge Lopez	ISKRA PERLES	Ger. General
Maria Elda Villane	E.E.sa	Ger. General
Ing. Marcelo Rovayo	CINAE	Cons. Edit.

**ANNEX V.4
COMPANY BY SECTOR INVOLVEMENT**

Co. ID	Div.	Group	Products Produced
1	37	3710 3720	Steel fencing, steel wire, electric fences, greenhouse frames, birdcages industrial shelters
2	38	3839	Injection molding equipment, white goods assembly
3	38	3812 3813 3819 3821 3822 3823 3849	Manual powered agricultural equipment, steel tanks (nonpressurized), support frames (general), cable bobbins, transport jigs
4	38	3843	Assembly of cars and trucks, manufacture of car exhausts
5	38	3812 3813 3839 3851	Decorative lamps, cables, transformers, tubes, electrical installations for industry and construction
6	38	3843	Manufacture of car seat frames, manufacture of car upholstery, manufacture of pajamas
7	38	3843	Manufacture of car parts, assembly of cars and trucks
8	38	3891 3813	Assembly of petrochemical installation, manufacture of pipes and valves
9	38 37	3813 3710 3720	Manufacture of frames for windows, steel extrusion profiles, aluminum extrusion profiles
10	38	3851 3832	Manufacture of satellite dishes, assembly of electronic equipment
11	38	3813 3821	Manufacture of water pumps, filters, tanks for industrial use
12	35	3560	Plastic pipes and unions
13	38	3831 3823	Assembly of electrical goods, drills, angle grinders, sanders, industrial use

ANNEX V.5

PRODUCT LIST BY SUBSECTOR FROM CEBCA CAPITAL GOODS LISTING

Subsector	Main Product Headings
1	Simple metal products, extruded forms
2	Foundry products, construction materials, industrial ovens, safes
3	Machinery (all types), heavy equipment, control equipment
4	Civil engineering machinery, ceramic equipment, mining equipment
5	Machines and parts for fluid movement, valves for refineries
6	Metal working machines, woodworking machines, plastic molding machines, paper machines, leather goods machines, parts for above
8	Material and equipment for transport
9	Ago industrial plant and machinery, tools for ago industry, spares for above
10	Machines and equipment for chemical industry
11	Health equipment, sports equipment, furniture for above
12	Industrial assembly

ANNEX V.6 SUPERVISORY AND MANAGEMENT TRAINING FLOW

Training Sessions	Target Groups
Forecasting and Planning Modification 1: Need for effective planning Modification 2: Requirement evaluation Modification 3: Managing the unexpected	Senior management Managers/supervisors
Organization and Control Modification 1: Production planning technique Modification 2: Effective use of manpower Modification 3: Understanding short interval control	Managers/supervisors Supervision
Communication Modification 1: Proactive intralevel communications Modification 2: Effective reporting Modification 3: Conducting efficient meetings	Managers/supervisors/foremen
Supervision and Control Modification 1: Nonconfrontational confrontation Modification 2: Understanding lost time Modification 3: Cost analysis and need for understanding Modification 4: Supervision as a means to quality production	Managers/supervisors/foremen
Team Building Modification 1: Understanding group dynamics Modification 2: Effective use of teams Modification 3: Cost benefits of organized teams Modification 4: Function of a supervisor	Managers/supervisors/foremen

ANNEX V.7
PERCEPTIONS OF SECTOR MANAGEMENT CONCERNING TRAINING PROBLEMS

Concepts Concerning Training Needs (Metal Forming Sector)	Sector Responses		
	% Affirmative	% Negative	% no answer
Can training institutions meet demand?	26 %	74 %	0 %
Do workers select their courses?	47 %	53 %	0 %
Do opportunities exist in the industry?	63 %	37 %	0 %
Do trained personnel databases exist?	5 %	95 %	0 %
Does the Government invest in training?	21 %	79 %	0 %
Do serious skills imbalances exist?	55 %	35 %	10 %
Are skilled workers difficult to find?	52 %	48 %	0 %
Are the skills that you need available?	21 %	68 %	10 %
Do formal links exist with institutions?	15 %	85 %	0 %
Is training investment important?	84 %	16 %	0 %
Do you invest in training?	63 %	27 %	11 %
Are management relations good?	100 %	0 %	0 %
Are training institutions capable?	21 %	79 %	0 %
Do institutions have many disadvantages?	79 %	21 %	0 %

ANNEX V.8 QUOTES

"There are serious restrictions on the development of SECAP due to its involvement with the GOE and their budgetary restrictions."

"We have more capacity to plan work than workers to complete it."

"There are many and terrible laws that impact upon the work force and employers."

"I want the compensation laws to stay as they are; otherwise, once consolidated they will start again and fuel higher costs."

"There is a need for the people to be educated in the needs of the country."

"Automation is a problem; there are no trained people."

"We do not even have bathrooms for women; this is a totally macho society."

"We need management and supervisory courses."

"We need to develop a product substitution program."

"People leaving high school should have an understanding of production techniques."

"We have experts in obsolescence and experts on obsolete machines."

"We have no information on export possibilities."

"There are no good centers for intermediate processes."

"There is no vehicle for attracting women."

"We are waiting for a central technological institute, not for operators but for managers."

"Public sector funding is cumbersome in its speed to react to the changes occurring in the market."

"The GOE has no strategic objective."

"We want dynamic courses not formal ones."

"We have two categories of worker: good or useless; the only good ones are those trained here."

"The Germans set up a great training institute, and then they left; now it is mediocre."

"SECAP is not capable of producing people capable of managing the development of the sector; we need European assistance."

"Management has the experience, but no vision."

"There would be opportunities if we could improve quality."

"A grave problem is vision and focus."

"No one can grow because of the economic situation."

"We need an ISO9000 system to be set up and followed through."

"Students coming onto the market do not have practical experience."

"People do not assume or take responsibility."

"The GOE does not make technological investigations; they are deaf dumb and hard headed."

"There is no GOE industrial policy."

"Raw material deficiencies cause high-cost imports, reducing competitive edge."

"Most companies do not have the mentality to invest in people."

"We need to improve salary levels."

"Technical administration is poor with little specialization."

"We need to encourage children to complete their education."

"We need investment and growth in heavy industry."

"We must improve our import substitution program."

"Quality must be understood."

"The engineers are lousy in terms of competency, but are good people."

"There is no effective communication between training institutes and companies."

"Education level of teachers is appalling."

"We should plan to produce equipment in this country."

"GOE should pay tax on the goods they purchase, produce, and sell to balance the competition as it is the largest buyer in the country."

"Technicians do not really exist in the market."

"No matter how many reports are produced, nothing will be auctioned."

"Since 1940, the country has experienced instability and change. No one believes that anything will endure."

"Everyone wants things simply without working for it."

ANNEX V.9
PERCEPTIONS OF SECTOR MANAGEMENT CONCERNING TRAINING
PROBLEMS

Concepts Concerning Training Needs (Agroindustrial Sector)	Sector Responses		
	% Affirmative	% Negative	% No answer
Can training institutions meet demand?	44%	56%	0%
Do workers select their courses?	81%	19%	0%
Do opportunities exist in the industry?	87%	13%	0%
Do trained personnel databases exist?	0%	100%	0%
Does the Government invest in training?	0%	100%	0%
Do serious skills imbalances exist?	50%	50%	0%
Are skilled workers difficult to find?	13%	87%	0%
Are the skills that you need available?	75%	25%	0%
Do formal links exist with institutions?	100%	0%	0%
Is training investment important?	100%	0%	0%
Do you invest in training?	94%	6%	0%
Are management relations good?	100%	0%	0%
Are training institutions capable?	37%	63%	0%
Do institutions have many disadvantages?	69%	31%	0%

ANNEX V.10

PERCEPTIONS OF SECTOR MANAGEMENT CONCERNING TRAINING PROBLEMS

Concepts Concerning Training Needs (Leather Goods and Apparel Sector)	Sector Responses		
	% Affirmative	% Negative	% No Answer
Can training institutions meet demand?	17 %	54 %	29 %
Do workers select their courses?	12 %	82 %	6 %
Do opportunities exist in the industry?	70 %	0 %	30 %
Do trained personnel databases exist?	0 %	100 %	0 %
Does the Government invest in training?	53 %	47 %	0 %
Do serious skills imbalances exist?	50 %	9 %	41 %
Are skilled workers difficult to find?	94 %	0 %	6 %
Are the skills that you need available?	6 %	88 %	6 %
Do formal links exist with institutions?	23 %	71 %	6 %
Is training investment important?	64 %	30 %	6 %
Do you invest in training?	35 %	47 %	18 %
Are management relations good?	53 %	12 %	35 %
Are training institutions capable?	23 %	42 %	35 %
Do institutions have many disadvantages?	65 %	0 %	35 %

ANNEX V.11
PERCEPTIONS OF SECTOR MANAGEMENT CONCERNING TRAINING PROBLEMS

Concepts Concerning Training Needs (All Sectors)	Sector Responses		
	% Affirmative.	% Negative	% No answer
Can training institutions meet demand?	%29	61%	10%
Do workers select their courses?	46%	52%	2%
Do opportunities exist in the industry?	73%	17%	10%
Do trained personnel databases exist?	2%	98%	0%
Does the Government invest in training?	25%	60%	15%
Do serious skills imbalances exist?	51%	32%	17%
Are skilled workers difficult to find?	58%	40%	2%
Are the skills that you need available?	33%	61%	6%
Do formal links exist with institutions?	44%	54%	2%
Is training investment important?	82%	16%	2%
Do you invest in training?	69%	21%	10%
Are management relations good?	84%	15%	11%
Are training institutions capable?	26%	63%	11%
Do institutions have many disadvantages?	71%	18%	11%

ANNEX V.12

ISO9000: A POSITIVE CONTRIBUTION TO BETTER BUSINESS

ISO9000 is an international standard selected by world industries in general to provide a template for management systems and can be used to assess the implementation of quality and world class manufacturing systems.

ISO9000 requires a program of international audits to verify whether performance and quality activities comply with planned arrangements and to determine the effectiveness of those systems

What is ISO9000?

ISO9000 is a national standard that promulgates for use by suppliers, purchasers, and manufacturers standards for quality and management systems respectively. It tells suppliers and manufacturers what is required of a quality-oriented system. It does not set special requirements that only a very few firms can or need comply with, but does offer practical standards for quality systems that can be used by all industries.

The principles of ISO9000 are applicable to all companies whether they employ 10 people or 10,000 people identify the basic disciplines, and specify the products or services to meet the customers requirements.

The benefits of applying ISO9000 are real: it will save money because procedures will be more soundly based and more efficient; it will ensure satisfied customers because quality is built in at every stage; and it will reduce waste- and time-consuming reworking of designs and procedures.

Many organizations consider the discipline of quality management systems to ISO9000 as providing a vehicle of assistance for achieving optimum levels of cost-effectiveness. Evidence is available that demonstrates the following critical attainments:

- a better spirit among employees
- a greater degree of internal control
- a better company image
- acceptance of the ISO9000 status by major customers
- a gain in new business
- a reduction in the loss of business
- a fall in quality-related costs and, above all, a greater cost effectiveness

What are the business benefits?

The business benefits that arise from the registration process can be attributed to the following critical areas of interest:

- Avoidance of customer pressure
- Marketing advantage
- Cost effectiveness
- A global approach to conformity assessment

With the advent of ISO9000, major companies and organizations have used the registration status of both manufacturing and service companies as a means of removing the on cost of supplier assessment. The marketing advantage stems from the company's ambition to have a "hallmark" of approval relating to its quality management system, being first past the finishing line in a particular service or manufacturing industries considered by many to be a marketing plus that puts the company ahead of its rivals for a period of 18 months to 2 years. To have an external organization of high repute, confirming the level of attainment of the quality system must be a major benefit.

What is the purpose of using ISO9000?

ISO9000 sets methods to establish, document, and maintain an effective system that will demonstrate to customers a commitment to quality products and are able to satisfy their quality needs. It is an internationally accepted standard and is simply common sense set down on paper in an organized way. It has been broken down into sections to enable manufacturers to implement it easily and efficiently.

ISO9000 brings real economies in its wake: economies in production because systems are controlled from start to finish, economies in resources, and economies in time spent on replanning or modifying designs. ISO9000 offers to have a complete record of every stage of production—invaluable for product or process improvement and in relation to any product liability claim.

Who uses ISO9000?

Suppliers can use ISO9000 when setting up their own quality systems; customers may specify that the quality of goods and services they are purchasing shall be controlled by management systems complying with ISO9000, and customers or third parties may use it as a basis for assessing a supplier's quality management system and the ability to produce satisfactory goods and services.

The direct benefits to firms that have been assessed in relation to ISO9000 are considerable: reduced inspection costs, improved quality, and better use of scarce resources. Exporting firms that have been assessed will find that assessment helps them to obtain reciprocal recognition of certificates where needed by overseas customers.

Certification and accreditation.

Certification is an assurance that suppliers meet the requirements of ISO9000. This means that their systems ensure that their products or services meet the requirements specified for them.

Accreditation is given by the controlling body of the ISO9000 institute to those companies achieving the required and independently audited level of quality in its operations as specified by ISO9000.

ISO9000 is rapidly becoming the world's largest quality and manufacturing standards "club" and will soon become a necessary certification for all companies wishing to compete and achieve success in the world's markets.

Martyn Walker
1994

CHAPTER VI TEXTILES, CLOTHING APPAREL, AND LEATHER APPAREL AND ACCESSORIES

BACKGROUND

Because of recent liberalization of import practices, Ecuador's textile, clothing apparel, and leather apparel and accessories sector (TCA/LAA) is suffering the consequences of many years of protection. For decades, Ecuador has protected its industrial base by restricting imports and imposing high duties on products competing with Ecuadorian industries. These practices protected textiles and clothing apparel industries from external competition, although some argue that illegally imported clothing apparel covers as much as 50 percent of domestic sales.¹

Presently, many mediocre companies in the TCA subsector are being pushed into bankruptcy or out of business by lower cost and/or higher-quality national and imported products. Others lack competitiveness compared with imported fabrics and clothing, and more so compared with contraband and underpriced imported goods. It is expected that only the strong competitors will survive in such an environment.

This chapter analyzes human resources and training issues and the opportunities and constraints that human resources present for developing the TCA/LAA sector. The analysis includes other constraints and opportunities that inhibit or facilitate development.

FINDINGS

Description of Sector

As shown in Table VI.1, from 1985 to 1993, the TCA/LAA sector has contributed with an annual average of 3.5 percent of total gross domestic product (GDP) and with a 21.9 percent of total value added in manufacturing.

¹KSA "A Strategy for the Development of the Ecuadorian Apparel Industry." September, 1991.

Table VI.1
Participation of Textiles, Apparels, and Leather (TCA/LAA) in GDP
(Millions of Constant 1975 Sucres)

Year	GDP	Annual Growth %	Value Added Manufacturing	Annual Growth %	Manufacturing GDP %	Value Added TCA/LAA	Annual Growth %	TCA/LAA Manufacturing %	TCA/LAA GDP %
1985	164,054	4.3	28,710	0.2	17.4	6,580	(1.2)	22.9	4.0
1986	169,136	3.1	28,241	(1.6)	16.7	5,936	(9.8)	21.0	3.5
1987	159,016	(6.0)	28,729	1.7	18.1	5,944	0.1	20.7	3.7
1988	175,742	10.5	29,312	2.0	16.6	6,366	7.1	21.7	3.6
1989	176,195	0.3	27,858	(5.0)	15.8	6,586	3.5	23.6	3.7
1990	181,531	3.0	28,055	0.7	15.5	6,440	(2.2)	23.0	3.5
1991	190,638	5.0	28,953	3.2	15.2	6,427	(0.2)	22.2	3.4
1992*	197,436	3.6	29,995	3.6	15.2	6,331	(1.5)	21.1	3.2
1993**	201,447	2.0	30,745	2.5	15.3	6,413	1.3	20.9	3.2

Source: Cuentas Nacionales - Banco Central del Ecuador - No. 16-1993
Boletín No. 17 (1984 - 1993) a mayo de 1994

* estimated
** projected

The textiles, apparel, and leather sector has contributed with 3.5% of total GDP and with 21.9% of total value added manufacturing from 1985 to 1993.

In 1993, according to figures presented by the Asociación de Industriales Textiles del Ecuador (AITE), Ecuador had a negative commercial balance of US\$30,606,743.00 for the TCA/LAA sector, of which US\$20,465,850 was with the United States.

Ecuador has the potential to increase its present production over the next five years. But, taking into account that approximately 50 percent of total value added by the TCA/LAA sector is contributed by small- and medium-size industries² and that most of the additional contributions would have to be attained from finished goods and clothing apparel, such an increase would impose trained labor force needs that must be confronted by Ecuador's formal and nonformal educational systems.

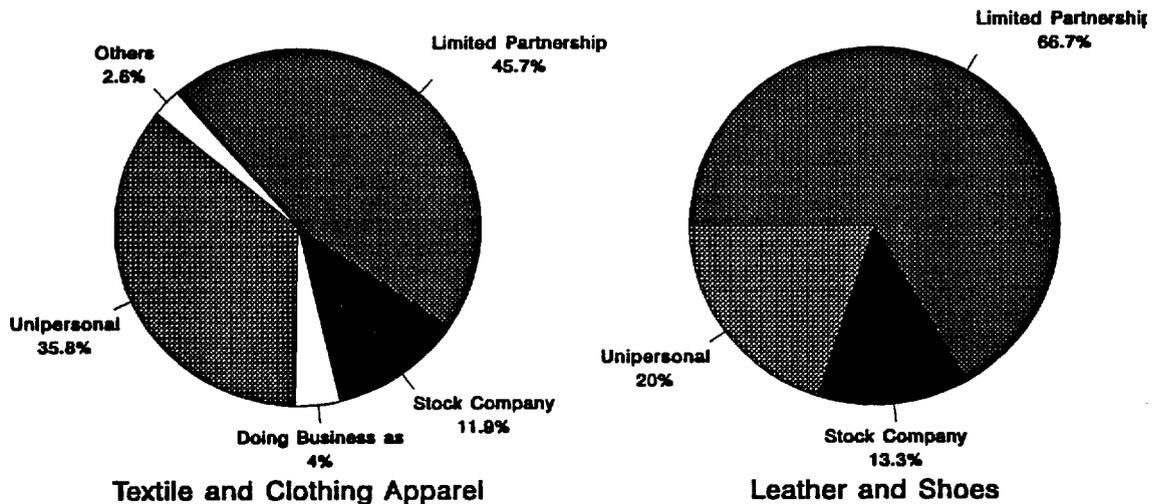
A key element, then, becomes the required transformation to a more effective and efficient educational system, responding to a clearer and sounder industrial policy for the short-, medium-, and long-term objectives for structural development. At present, Ecuador is making efforts to determine and implement this required transformation, not only at the political and governmental level, but also at the private sector level.

Based on information from an affiliate survey conducted by CAPEIPI Cámara de la Pequeña Industria de Pichincha (CAPEIPI) in 1993,³ Chart VI.1 shows how the textile and clothing apparel and the leather and shoes industries are conformed. This information pertains only to affiliates of the CAPEIPI.

²According to figures from "Diagnóstico de la Pequeña Industria de Pichincha, 1993," CAPEIPI, in 1990 of total production of 240 billions of sucres 49.7% was produced by the small-and medium-size companies.

³Diagnóstico de la Pequeña Industria de Pichincha. CAPEIPI, 1993.

Chart VI.1



Because most TCA/LAA industries are located in the Sierra,⁴ we can assume that Pichincha province is where the majority of companies in the TCA/LAA formal sector exist. In addition, at least 50 percent of total production, services, and commercial units operate in the informal sector, but these units were not included in the above CAPEIPI's survey.

Because of financial limitations, only share companies and some limited partnership companies are believed to be potential exporters or capable of competing with imports. Therefore, at present conditions, growth of the TCA/LAA sector will require that existing share companies increase their present production and that more stock companies are formed. Few TCA/LAA enterprises are capable of exporting products to the Andean and international markets, and most are aware that present products do not meet required international quality

⁴This can be presumed from "Necesidades de Capacitación Profesional en el Sector Industrial, 1993," Servicio Ecuatoriano de Capacitación Profesional (SECAP). The SECAP document reports 424 TCA/LAA companies affiliated to the Cámaras de Industriales in eight principal cities, not including affiliates to other Chambers as the CAPEIPI in Quito and the CAPIG in Guayaquil. Of the 424 TCA/LAA companies, 327 (77 percent) are reported as members of the Cámara de Industriales de Pichincha and only 60 (14 percent) are affiliated with the provincial Chamber of Industries of Guayaquil.

standards to be competitive. On an individual basis, some companies have changed and/or are changing their processes and product mix to satisfy international markets requirements, but as a whole the TCA/LAA sector is reacting to decreased domestic sales because of better quality and design of imports.

There are excellent opportunities for training. Overall, Table VI.2 represents main weaknesses and general training opportunities assembled after reviewing notes from interviews.⁵

Other weaknesses, such as poor technology (old equipment), shortage of adequate training (management and technical), and particularly the lack of political clout from sector organizations, need to be addressed. Sector organizations have counted on compulsory affiliations without the need to provide any meaningful service to its affiliates. Therefore, the TCA/LAA sector is plagued with indifference towards sector organizations.

Lack of effective representation for the TCA/LAA sector is one common complaint expressed by companies interviewed. Most companies claim that sector organizations function on behalf of selected interest groups and that membership should be noncompulsory.

The TCA/LAA sector also has some strengths:

- plenty of relative low labor cost with a sound textile tradition
- competitive quality of filament production
- stimulating climate for textiles and apparel manufacture in the highlands

⁵A listing of companies interviewed is presented in Annex VI.1 at the end of this chapter. Perceptions to training problems are presented in Annex VI.2.

Table VI.2

Main Weaknesses and Training Opportunities

Weaknesses	Training
Poor management Small to very small apparel industry Highly fragmented and informal apparel industry	Management Management of cottage and small industries Leadership
Lack of supervisory skills and leadership	Middle management Leadership Personnel motivation
Imbalances in equipment technology and installations Deficiency of processes, methods, systems, and work flow Inadequate production areas (size/lighting)	Plant layout and design Motion and time studies Processes, methods, systems, and work flow Management and design Other IE training
Low productivity	Productivity management Labor compensation and motivation
Low and erratic quality Lack of statistical process controls and quality assurance	Mathematics Statistics/probabilities Quality control Computer operations Statistical process control
Lack of knowledge of international norms and standards No knowledge of foreign markets Lack of marketing and product development	ISO9000 International marketing Fashion design Specifics for export procedures

Additionally, Ecuador has good opportunities for exports and for increasing its share in the domestic market:

- The European Community has opened its market to Ecuador, and the United States has no quotas.
- Excellent opportunities are available to compete with imported products and penetrate the high-end price segment in the domestic market.

But, to survive and flourish, the TCA/LAA sector must face some serious threats:

- high contraband levels (20-40 percent)
- better quality, design, and fabrics imports
- more fashions and colors of imports

- lower prices of imports
- underpriced and used clothing apparel imports⁶
- possibility of recurring politicized labor climate with anti-private-sector attitude
- decreasing purchasing power of consumers
- Government bureaucracy
- hesitant implementation of policy reforms

Products, Processes, and Markets

Products

The diversity of products depends on the willingness of producers to manufacture these items. Manufacturers in the TCA/LAA sector are product oriented, designing only products considered easy to manufacture based on their current expertise and availability of raw material. Only one company visited expressed using European fashion magazines to obtain new trends for the U.S. market and attending trade shows in New York with samples to take orders from U.S. retail outlets.

Most TCA/LAA products lack the required consistency in quality for international markets like the United States and the European Union, and in many cases this is true even for the Colombian market. The following principal causes of low quality have been detected:

- lack of quality raw materials
- very weak expertise in product design
- dependence on unqualified labor for cutting leather patterns (leather goods rely strongly on the quality of leather and this operation to assure the quality of final products)
- a general attitude that customers must accept the product as it is; blame usually placed on someone else and customer's demands not considered

Therefore, two areas of training must be addressed: (1) vocational training to improve expertise in product design and product specifications for industrial manufacturing and (2) cultural education, from the primary level of the formal educational system to foster leadership and the basis for a more effective entrepreneurial community.

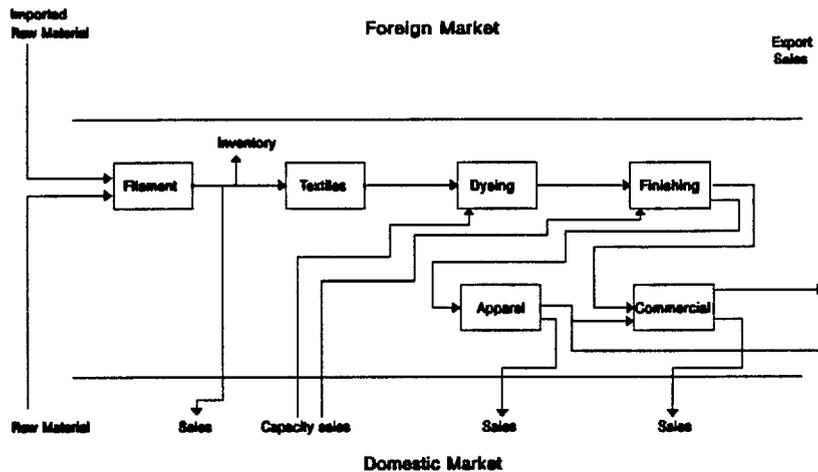
⁶The AITE presented evidence of imports from Panama: T-shirts declared at US\$0.02 per unit and pants at US\$0.30 per unit. Panama also represents a significant source of clothing apparel without having a significant textile industry. During 1993, clothing apparel imports from Panama amounted to US\$9,389,608.00 CIF. Combined imports from Colombia, Venezuela, Peru, and Bolivia amounted to US\$6,320,640 CIF. AITE also expressed unfair trade practices from United States used clothing apparel, of which Ecuador imported 7,000 metric tons in 1992 mainly from the United States (for which no dollar value was available).

Processes

Chart VI.2 illustrates the general process for one of the major integrated textile and apparel company visited.

Chart VI.2

An Integrated Textiles & Apparels Company



Domestic market hurting.

Some textile companies with different levels of integration (from filaments to finishing) are finding it necessary to invest in apparel manufacturing because of increased levels of competition. Imports of clothing apparel have had significant impacts on apparel manufacturers and textile companies. One major textile company has assisted in coordinating apparel manufacturers in the town of Pelileo and sells most of the fabrics required by that town, although about 40 percent of fabrics sold are imported from Colombia. This innovative approach is singular in Ecuador and notable.

Other major textile companies have invested in their own apparel manufacturing. One such company expressed intentions to continue investing in this end of the business but only for items that do not require much labor (such as t-shirts). The labor code and low labor productivity were mentioned as main reasons.

Imbalances in equipment technology and installations are common problems for most textiles companies. Many textile companies operate at 60 percent of capacity use, with use of some specific equipments as low as 40 percent. One sector organization expressed that this was due to increased competition from imports, but the major textile company visited made it clear that this was mainly due to imbalances in equipment technology and installations.

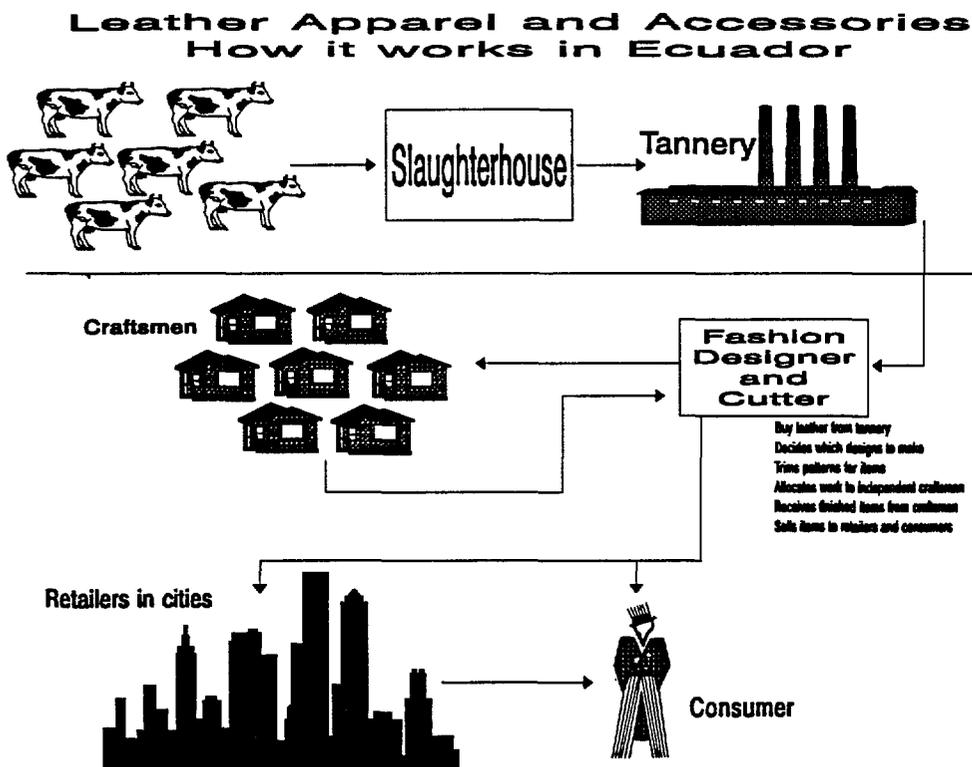
Another problem specifically cited was the lack of experts in colorimetry and tinting, and the resulting dependency on suppliers of dyes. Therefore, color consistency of fabrics is a quality issue that textile companies cannot secure. For exports, this is a critical element. Most clothing apparel manufacturers operate in the informal sector, and their plants are small and inefficient. Efficiency and productivity are the principal concerns expressed by owners/managers, and quality is sacrificed for the sake of lower costs (only one plant visited claimed that quality was the number one criteria because of quality requirements in the United States.) However, work flow and methods considerations were lacking in all plants visited, indicating that the owners do not understand the principles of productivity. (See Annex VI.3 for brief explanation.)

Leather apparel and accessories manufactures could not be visited in their plants.⁷ Evidently, most major companies, claiming to manufacture the products they sell, buy the products from independent manufacturers. Most commercial stores in Quito depend on independent craftsmen even for repair services they provide to customers.

The leather apparel and accessories operations in Ecuador is illustrated in Chart VI.3.

⁷Leather manufacturers in Ambato and Quito did not agree to meet in their plants. During our visit to Ambato, we could only visit small leather shops in nearby Quisapincha, a village dedicated to making leather products.

Chart VI.3

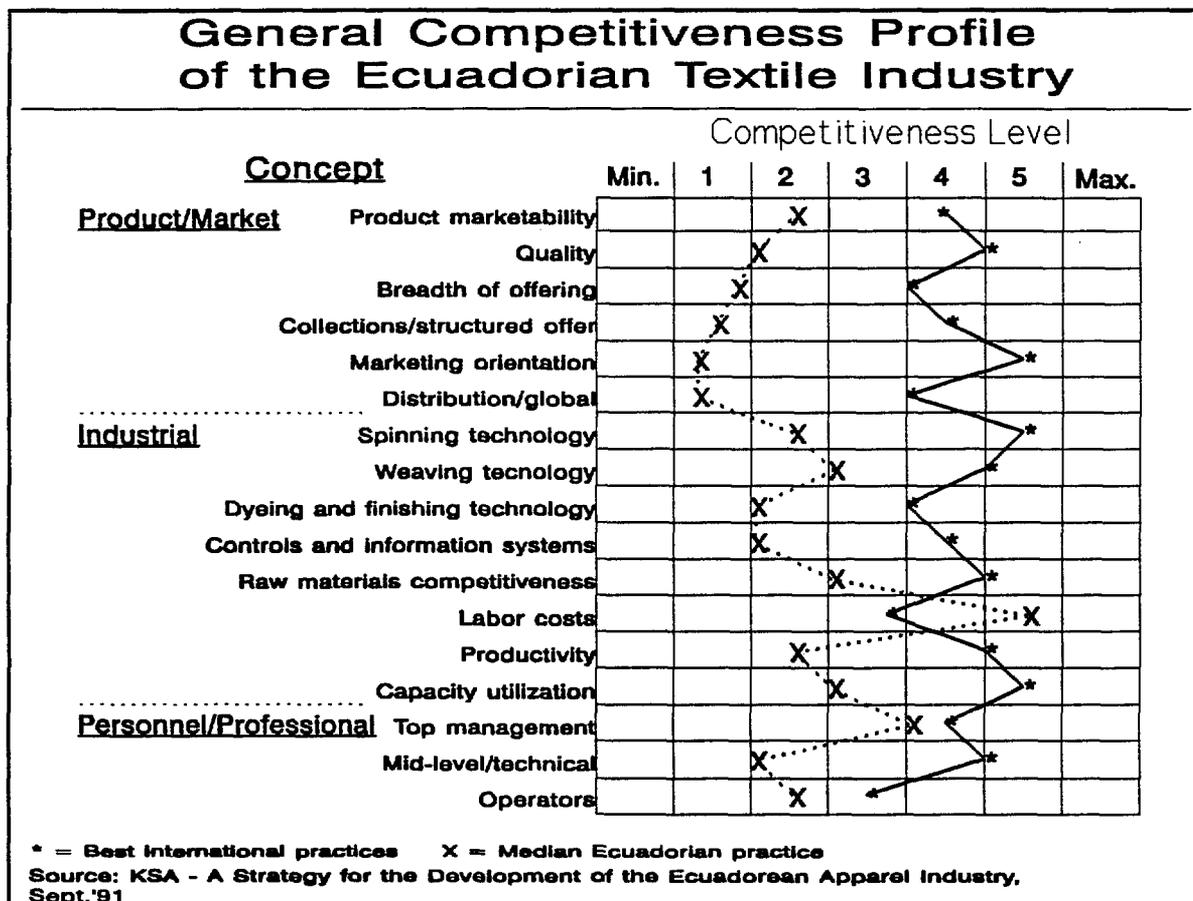


Barbed wires, parasites, and other diseases at the farm level are the first source of low quality in the LAA subsector. The second source of low quality is color consistency for natural colors (shades of brown) and red; this is not a problem when leather is dyed in black or white.

The controlling functions in the LAA subsector are the designer and cutter operations. The person performing these functions must make sure that individual patterns have the same color consistency and that no imperfections are included, in addition to making sure that cutting is done accurately.

Chart VI.4 illustrates the present Ecuadorian textile competitiveness profile compared to best practices in a global economy. Ecuador has significant gaps to become as competitive as manufacturers in other countries competing at world-market levels.

Chart VI.4



According to CAPEIPI's Diagnóstico de la Pequeña Industria de Pichincha 1993, the average value added in the LAA subsector is 46.8 percent; in the TCA subsector, 42.6 percent. The following breakdown is also provided:

TCA Subsector		LAA Subsector	
Threads and fabrics	40.4%	Tannery	40.0%
Underwear	39.9%	Leather goods	51.3%
Clothing apparel	43.5%	Office products	40.0%
Work attire	45.0%	Shoes	44.7%
Children's clothes	48.8%	Others	61.0%
Sport attires	46.2%		

Markets

Most small producers manufacture to satisfy special orders. In the LAA subsector, small manufacturers generate 75.3 percent of production to satisfy special orders; in the TCA subsector, 68.7 percent.⁸ When production is stocked, most small producers take a passive attitude, expecting buyers to contact them requesting the products available.

In textiles, almost all companies are oriented toward the domestic market. Some companies claim to have exported a minor percentage (10 percent or less) of their production to Colombia or Peru, but realized that their quality is not acceptable.

Clothing apparel manufacturers are also oriented towards the domestic market, with some isolated efforts towards the international market. Two or three companies that export t-shirts to the European Community, but even though some employ up to 200 workers, their operations are still very small. T-shirt manufacturing is mainly automated and not a major employer of labor. Only one of the clothing apparel companies interviewed in Quito has been exporting to the United States, but total annual sales are not more than US\$100,000, and this figure represents about 60 percent of total production.

Also, the clothing apparel exporter expressed that by having to meet United States' quality standards, products sold to the domestic market are the best in Ecuador with no competition, even though their prices are higher than other producers. This company also claims that they cannot satisfy their domestic demand and that they have no interest in growing because of different problems from present labor laws. At present, they are considering reducing exports because of accounts receivables problems with U.S. retail outlets.

Most TCA/LAA affiliates to the CAPEIPI expressed having export potential (78.5 percent in TCA; 71.4 percent in LAA),⁹ but all companies interviewed accepted that better quality imports are harming their domestic sales. The major problem with these arguments is that few are doing anything about it, blaming their lack of inertia on the present labor code. A logical explanation is that very few have any knowledge about their own domestic market, international markets, and customer demands. The few that have tried to export have found that they lack the competence to sustain sales abroad, and many are finding that they also lack the competence to sustain sales in the domestic market.

⁸Diagnostico de la Pequena Industria de Pichincha. CAPEIPI, 1993.

⁹Diagnóstico de la Pequeña Industria de Pichincha. CAPEIPI, 1993.

Human Resources and Training

Various entities are publishing information about human resources and employment,¹⁰ but their figures do not agree. For example, according to INSOTEC,¹¹ in 1989 the textile industry provided for approximately 48,000 direct jobs (15 percent of all industrial workers) and approximately 100,000 indirect jobs (4.3 percent of total employment).¹² On the other hand, CAPEIPI reports for 1989 a total of 20,430 jobs for the TCA/LAA sector,¹³ equivalent to 18.5 percent of total employment in manufacturing. Figures from Servicio Ecuatoriano de Capacitación Profesional (SECAP)¹⁴ for affiliates to the Cámaras de Industriales in eight principal cities, reflect 61,692 jobs for the 424 affiliates for 1992.

INEC¹⁵ reports 512,290 classified craftsmen and textile industry workers as EAP as of November 1993, of which 248,491 were working in different manufacturing industries.¹⁶

Charts VI.5 and VI.6 show the distribution of classified craftsmen and textile industry EAP workers. Chart VI.5 indicates that most TCA/LAA classified workers operate in the informal sector (based on 339,408 out of the 512,290) and that almost 50 percent of TCA/LAA classified workers are dedicated to other than manufacturing activities (based on 263,799 out of the 512,290).

Chart VI.6 indicates that almost 50 percent of TCA/LAA trained workers are salaried employees of private enterprises and that almost 42 percent are owners, partners, or

¹⁰SECAP, INSOTEC, CAPEIPI, INEC, etc.

¹¹La Educación Técnica en el Ecuador: Diagnóstico de los colegios técnicos, especialización Artes Industriales. INSOTEC's Cuaderno de Estudios #3, 1992. Source listed: INSOTEC, La industria de la confección en el Ecuador, 1989.

¹²Textiles y Prendas de vestir includes leather apparel and accessories.

¹³Diagnóstico de la Pequeña Industria de Pichincha. CAPEIPI, 1993. Source listed: INEC. Data prepared by Fundación Ecuatoriana para el Desarrollo Empresarial (FEDE).

¹⁴Necesidades de Capacitación Profesional en el Sector Industrial, SECAP 1993.

¹⁵Empleo, Desempleo y Subempleo. INEC, November 1993. Classified craftsmen and textile industry workers include different types of craftsmen. It is not clear how INEC determines this classification. We presume that overall figures would apply in the same proportions to trained labor force for the TCA/LAA sector.

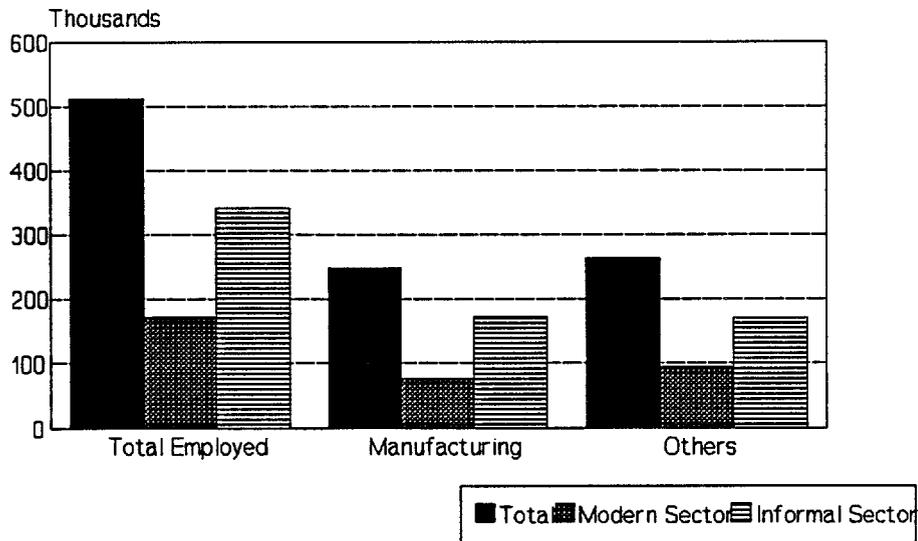
¹⁶We also presume that all trained work force for the TCA/LAA sector working in manufacturing industries different from TCA/LAA industries would be working in jobs requiring their expertise. For example, if a trained TCA/LAA worker is working in the automotive industry, it would probably be performing a job similar to seat covering.

independent craftsman. All independent craftsman operate in the informal sector, and 79 percent of owners and partners operate in the informal sector.

Owners and partners would employ workers and are probably the owners of TCA/LAA manufacturing industries. Therefore, it is likely that 79 percent of the TCA/LAA companies are operating in the informal sector and that 33 percent of the TCA/LAA work force are employed by companies operating in the modern sector.

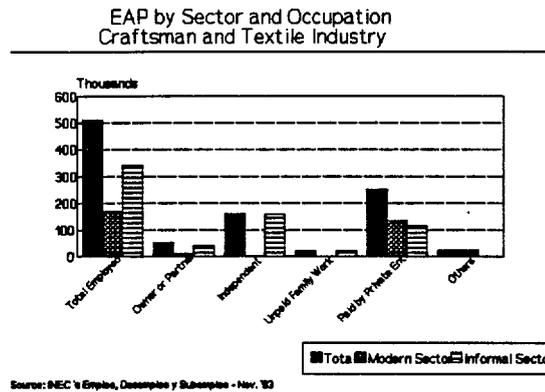
Chart VI.5

EAP by Sector and Occupation
Craftsman and Textile Industry



Source: INEC 's Empleo, Desempleo y Subempleo - Nov. '93

Chart VI.6



From existing information, it is difficult to estimate the total labor force for the TCA/LAA sector alone. Previous figures from INSOTEC, CAPEIPI, and SECAP do not provide an easy way of estimating the labor force in the TCA/LAA sector, but the total labor force in the modern TCA/LAA sector is probably between 30 and 35 thousand. Therefore, the total labor force for the TCA/LAA sector (modern and informal) could very well be in the range of 90,000 to 105,000 as of 1993.

Educational Levels

The education level for the TCA/LAA sector cottage and small industries is mostly primary. Based on figures presented in Table I.5, 45.7 percent of total EAP has a primary educational level, and most of the work force in the TCA/LAA informal sector is obtained from this segment of EAP.

Training and skills development are imparted at the shop by another worker or the head of the family unit. Additional education and/or training is not considered worthwhile, except for specific training in operating a new and unknown machine, which is normally provided by the commercial business that sells the equipment.

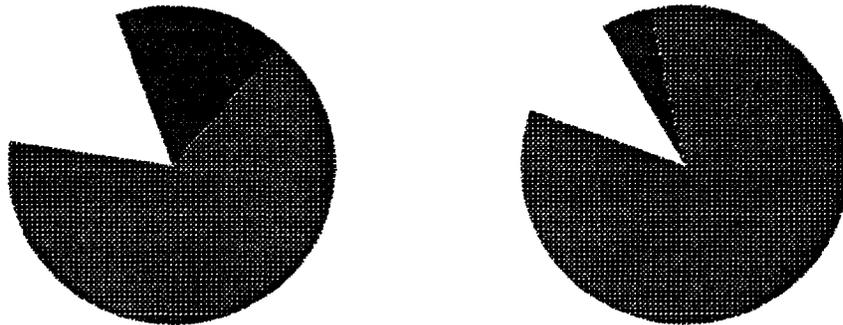
Almost all companies interviewed expressed that SECAP does not provide the required training for the TCA/LAA sector. Some claimed that sending workers to SECAP was "dangerous" because instructors promote labor conflicts and unions. SECAP officials denied these claims but did accept that contacts between participants could cause awareness of distinctive management-labor relations in different companies.

At the more formal sector level, companies and workshops employing about 30 workers have an average distribution of labor,¹⁷ as depicted in Chart VI.7.

The smaller the workshop the higher the concentration of production jobs (up to 90 percent) with one to two individuals performing all managerial and commercial functions.

From interviews conducted, it was impossible to obtain information concerning the educational level of workers in the different positions, but essentially all employed production labor have at least a primary education; all managerial and/or financial personnel have at least a secondary education with some postsecondary training; and all sales and commercial personnel have at least a secondary education.

Chart VI.7
Distribution of Labor



Gender Mix

Men in the TCA/LAA sector are mostly in technical positions or are owners of cottage industries. No males are employed in sewing operations in the TCA subsector, but most

¹⁷Extrapolating from figures in the Diagnóstico de la Pequeña Industria de Pichincha. CAPEIPI, 1993.

workers in the LAA subsector are males. In textiles and tanneries, most production workers are men.

In the clothing apparel industries, most women are over 35 and work in sewing and finishing operations. According to employers, employment of women between 22 and 35 years of age is not practiced because of high levels of absenteeism and low productivity. Claims are made that married women bring many problems because of pregnancies and abusive treatment from their husbands. Normally, young girls up to 20 years of age are employed, but they will not last in their jobs. Women and men are rarely mixed in the same activities, and when they are, they are separated into different rooms. For some operations, such as semiautomatic weaving, male workers are preferred because of physical force required to operate the machines.

In the leather apparel industries, both women and men are in fashion design and cutting, but mostly males are in stitching.

Companies interviewed that have a female supervisor for male workers expressed having many difficulties in worker's acceptance. Males do not like to be supervised by a female. Even when the owner is a woman, she has trouble dealing with male workers. Therefore, when women own the workshop, they tend to employ females and when males are required, the husband, father, brother, or son supervises the workshop.

Management-Worker Relations

All companies interviewed claim to pay between 25 percent and 40 percent above minimum wages, but none were willing to provide any hard data to support such claims. It is believed that no small company offers payment above the required minimum wage and that most informal sector workshops do not even pay all fringe benefits required by law.

The company interviewed that exports clothing apparel to the United States expressed that it provides incentive pay for producing above a minimum quantity and that it complies with all payments and benefits required by law to enforce penalties for not meeting quality requirements.

Most TCA small companies have no incentive payment other than maintaining their jobs by producing what is demanded. In the LAA subsector, all independent craftsmen are paid by units delivered.

CONCLUSIONS

At present the, TCA/LAA sector shows no urgent needs to have more available labor, regardless of general claims that present labor qualifications are inadequate. Plenty of laborers are in the market, and basic training is regularly provided by the company.

The major problem is one of attitude. Neither managers nor laborers have any awareness of quality issues and are in the habit of producing and selling low-quality items. Another major problem is that neither managers nor laborers have any perception of the importance of delivering products on time.

Future opportunities for development of the TCA/LAA sector in Ecuador will depend on the Government's industrial policy. At present, this sector does not have much future, and if no other sector develops to absorb present employment of the TCA/LAA sector, a major social and economic crisis could affect Ecuador.

The TCA/LAA sector should find opportunities for import substitution as well as for exporting products to the Andean Pact countries and to the international market. Whatever approach is taken, the TCA/LAA sector must substantially improve its managerial and technical capabilities to be competitive.

Considering that the TCA/LAA sector has been oriented towards the domestic market, export and import substitution potentials could increase this sector's participation in GDP to figures above the 5 percent level or more over the next five years if claims of illegal imports are true and greater efforts are made to restrict them.

If the manufacturing sector increases its participation to 20 percent of GDP from the present 15.3 percent and GDP expands at an annual rate of 4 percent over the next five years, the manufacture sector would have to grow by 57 percent over the next five years (9.4 percent annually), and the TCA/LAA sector would have to grow 12 percent annually or almost 74 percent over the next five years to reach 5 percent of GDP—a major task for the TCA/LAA sector.

Figures¹⁸ presented in Table VI.3 are based on an overall effort to increase production by 75 percent—100 percent over the next five years. Ecuador would need to increase labor force employment in the TCA/LAA modern sector by at least 30,000 new direct and indirect jobs. Furthermore, Ecuador has to upgrade present productivity to a more competent level.

¹⁸Based on figures for 20,000 new jobs from 1991 to 1996, KSA, "A Strategy for the Development of the Ecuadorian Apparel Industry." September, 1991. Presented here to anticipate needed training if the TCA/LAA sector grows.

Table VI.3

Potential New Jobs for the TCA/LAA Sector

Year	Direct Jobs	Indirect Jobs	Cumulative
			1,667
1995	1,250	417	5,000
1996	2,500	833	10,000
1997	3,750	1,250	18,333
1998	6,250	2,083	30,000
1999	8,750	2,917	
Total	22,500	7,500	

At the end of the five-year period, based on an average of 50 direct production employees per new industry, Ecuador could have the industry structure shown in Table VI.4.

Table VI.4

Structure for 450 New Plants¹⁹

Plant Size	Number of New Plants	Percent of New Plants	Average Number of direct jobs
Very Small	180	40.00%	10
Small	120	26.67%	30
Medium	90	20.00%	60
Large	45	10.00%	150
Very Large	15	3.33%	330
Total	450	100%	50

All 22,500 direct jobs depicted in Table VI.3 would be production-oriented jobs, requiring technical skills appropriate to specific production work. Based on information presented in Chart VI.5, Ecuador has plenty of sources from which to obtain this number of workers for the TCA/LAA sector, and companies are capable of providing the additional training required.

Table VI.5 shows the indirect labor composition.

¹⁹This is to obtain an average of 50 direct production workers per new plant, considering that 2/3 of new plants would be small to very small with 60 percent of these very small, and that 1/3 remaining would be distributed by a 6/3/1 ratio.

Table VI.5

Compositions for New Indirect Jobs

Qualifications	1995	1996	1997	1998	1999	Total
Mechanics	25	50	75	125	175	450
Supervisors	75	150	225	375	525	1350
Quality Inspectors	50	100	150	250	350	900
Trainers	25	50	75	125	175	450
Managers	13	24	36	63	89	225
Engineers	13	24	36	63	89	225
Other Management	13	24	36	63	89	225
Other Indirect*	203	411	617	1,019	1425	3,675
Totals	417	833	1,250	2,083	2,917	7,500

* Other Indirect would include indirect laborers such as clerical workers, janitors, watchmen, inventory personnel, and salesmen.

Short-term education and training for indirect personnel is probably more important than for direct production workers.

With the proper set of conditions present, a significant percentage of existing industries in this sector could become competitive. Therefore, the TCA/LAA sector must strengthen its industries within a global economy context. To do so, the following should be considered:

- Both subsectors must become larger and more productive than they are today for its value-added chain to remain viable.
- Major growth possibilities for both subsectors are restricted because of fragmented small size companies and low purchasing power of the domestic market, with additional restrictions to the TCA subsector resulting from the level of penetration of contraband and underpriced imports.
- Both subsectors should become export oriented and overcome the following internal and external obstacles:
 - Internal:
 - * low productivity and low level of technology
 - * lack of specialization and of exportable products
 - * production-driven industries with no orientation towards marketing and merchandising

- External:
 - * labor code inhibition of investment in new plants and expansion of existing facilities (many companies interviewed expressed that labor laws are too burdensome and discouraging)
 - * inhibition of entrepreneurs to operate in the formal sector because of process for incorporation
 - * bureaucratic export procedures and lack of incentives for exporters
 - * higher ocean-freight costs than from competing countries
- Competitiveness cannot be built on the basis of low costs alone, but on efficiency and improvements in productivity.
- Training, at all levels, including technology transfer, should be viewed as an investment and not as an expense. The most critical training needs pivot around the following:
 - understanding international market demands and fashion trends, not only for exports but also for competition against imports
 - capabilities for creative designs and for transforming these into operational characteristics
 - understanding flexible manufacturing and productivity to become competitive
 - labor motivation and profit-sharing strategies for improved productivity
 - quality assurance in production and services
 - management of cottage and small industries
- TCA/LAA manufactures should become focused and develop specialized capabilities, which require the following:
 - selecting the right products based on market demands, domestic and international
 - developing competitive advantages in the chosen areas
 - developing a database on foreign market demands and aligning manufacturing capabilities to satisfy those demands
 - conceiving creative and innovative solutions to problems imposed by present labor code and other external obstacles
 - Reducing red tape and delays in the export/import documentation process with a more efficient and honest custom service
 - Improving special interest group pressure to negotiate better transportation costs with ocean-freight companies

An overall effort to develop exports will eventually translate into more acceptable products for the domestic market, changing present perception that any product manufactured abroad is better (Ecuador is heavily influenced by this paradigm) and increasing market share in the domestic market.

Sector organizations must provide many meaningful services. At the political level, sector organizations should denounce all unfair trade practices and coordinate efforts to eradicate these practices. At the private sector level, sector organizations must assist its members in improving overall competitiveness. It is not enough for sector organizations to express their intelligence and devotion to diagnose weaknesses and threats without effective and timely actions.

Present Government vocational training in the TCA/LAA sector does not appear to be of significant impact to the sector. Vocational training in apparel manufacture is not oriented towards industrial manufacturing, and, therefore, companies provide most of the required training for employment. SECAP should provide the required vocational training for first-time workers in the TCA/LAA sector. Formal educational system vocational training also needs to emphasize industrial manufacturing.

Training alone is not enough to develop a productive work force. It must be preceded by proper recruiting and evaluation of candidates and followed by implementing fundamental principles of industrial engineering, adequate controls, and technological modernization. Entrepreneurs should find attractive the possibility of marketing and coordinating the TCA/LAA informal sector production, as has been proven in some degree by the Pelileo experience, but this requires creativity, innovation, and cooperation, characteristics not yet common for Ecuador's managers and entrepreneurs.

RECOMMENDATIONS

Flexible Manufacturing

New manufacturing trends towards a more flexible manufacturing process, including cellular manufacturing, should find good grounds in Ecuador's TCA/LAA sector. This would help to translate many weaknesses into strengths, but it would require major cultural changes.

The natural development of present TCA/LAA production has been supported by informal sector apparel manufacturers. Industrialized countries are having a difficult time transforming highly integrated manufacturing processes into more flexible and cellular manufacturing. Ecuador has this type of process, but it is fragmented, disorganized, and not properly trained.

As mentioned in the conclusions, the Pelileo experience is notable and should provide lessons for other entrepreneurs to conceive innovative strategies for coordinating existing fragmented informal sector manufacturers.

The road taken by some major industries trying to compete with Korea or Taiwan in t-shirts (or other low quality and not labor intensive) manufacturing might prove to be the wrong approach. TCA/LAA industries should focus on differential characteristics to develop competitive advantages in a global economy.

Human Resources and Training

Adequate education and training have to be provided to assure that the required skilled labor force is available. All qualifications must be included in any training effort, and training should be conducted in classrooms (pretraining) as well as implant (on-the-job training).

At the primary level, the educational system must emphasize the required cultural transformation for a more reliable and futuristic work force. The traditional paradigm that work is punishment from God, must be changed to a new paradigm that work dignifies. Children must be taught to take initiative, and teamwork must be induced at an early age.

At the secondary level, the educational system must ensure that graduates have good cultural information; self-esteem and leadership qualities; social responsibility; the required knowledge in reading, writing, and mathematics; and sufficient comprehension to follow instructions.

Both levels of education, primary and secondary, are for the long-term development of Ecuador. The TCA/LAA sector cannot wait for the formal educational system to satisfy these basic requirements. Therefore, for the medium- and short-term, adequate adult education is needed.

Ecuador's vocational education system needs to improve its methodology for effective adult education. At present, all vocational training provided is ineffective, and companies have to retrain their employees without assistance from the public vocational training institution SECAP.

The problem here is not one of allocating financial resources, but one of assuring that training institutions provide effectively the areas and quality of training required. Sector organizations must become involved in coordinating efforts with vocational training institutions and universities to assure that sector development will find the necessary skilled labor force.

For entrepreneurs and managers to conceive the importance of having a well-trained work force, they first have to be trained themselves. Therefore, the training opportunities

presented in Table VI.2 are the most critical ones in the short term. Also, because the higher educational system in Ecuador has not been capable of responding to these training opportunities, any impact on the short term would necessarily have to come from abroad. Scholarships for undergraduate and postgraduate studies in industrial engineering and industrial management could prove to be effective.

Legislation and Regulatory Implementation

The present 0.5 percent tax on total wages, allocated to SECAP, should be critically reviewed. The Government of Ecuador should consider eliminating this tax and creating new ways to promote that companies do provide adequate training opportunities to their employees. SECAP should compete in an open market with other private educational and training institutions.

The present labor code must be reformed to be more transparent and easier to administer. Also, it must be flexible enough to facilitate creative ways for motivating the work force to new levels of productivity, without sacrificing the protection labor needs from abusive employers.

Laws concerning incorporation must be simplified and permit more businesses to join the formal sector. Strict requirements should be levied only for companies going public through the stock market. Government's paternalism should be kept to a minimum. Fair commercial practices must be one of the main concerns for Government. Illegal imports, contraband, underpriced goods, and any other form of unfair commercial practices must be fined and penalized through a more effective and fair judicial system.

Sector Organizations

Sector organizations need to coordinate efforts to assist their members. Proliferation of sector organizations should be kept to a minimum; compulsory membership, eliminated. Most sector organizations are weak and have no clout to properly assist their affiliates. Reducing the number of associations and strengthening the ones remaining could prove critical for the TCA/LAA sector.

Companies must become actively involved with sector organizations and participate in establishing services required. Many of the previous recommendations are not the sole responsibility of Government, and sector organizations can and should play a leading role in implementing changes.

Educating customers to buy Ecuadorian-made products is one of many services that sector organizations can provide. This needs to have equivalent efforts from manufacturers and laborers to improve quality of products and services.

ANNEX VI.1
TCA/LAA COMPANIES AND ORGANIZATIONS INTERVIEWED

Companies	CIU	Products
Dicomtexsa (Quito)	3211	Filaments, textiles, and finished fabrics
	3220	T-shirts
Manufacturas Americanas (Quito)	3213	Women underwear, night gowns
	3220	Men's shirts
Stone Suéteres (Quito)	3220	Sweaters and pullovers
Alazán (Quito)	3220	Clothing apparel
Kuero's (Ambato's fair)	3220	Leather jackets
Hector Barroso (Pelileo)	3220	Jeans
El Gato (Quisapincha)	3220	Leather jackets
Del Cuero Arte Camacho (Quisapincha)	3233	Purses, bags and other leather accessories
Two other leather shops without names (Quisapincha)		
Guzy (Quito)	3220	Weaved children garments and pullovers
MayorPiel (Quito)	3220	Leather jackets
	3233	Purses, bags, briefcases, belts, agendas and other leather accessories
Su Cartera (Quito)	3233	Purses, bags, briefcases, belts, agendas and other leather accessories
	3240	Women shoes
<p>Organizations APITEX (Asociación Nacional de Empresarios de la Pequeña Industria de Tejidos, Confecciones y Afines) AITE (Asociación de Industriales Textiles del Ecuador) Cámara de Industriales de Pichincha SECAP (Servicio Ecuatoriano de Capacitación Profesional) INCAE (Instituto Centroamericano de Administración de Empresas) INSOTEC (in Pelileo and Ambato) CAPEIPI (Cámara de la Pequeña Industria de Pichincha)</p>		

ANNEX VI.2
PERCEPTIONS CONCERNING TRAINING PROBLEMS

Concepts concerning training needs (TCA/LAA Sector)	Sector Responses		
	% Affirmative	% Negative	% No answer
Can training institutions meet demand?	17%	54%	29%
Do workers select their courses?	12%	82%	6%
Do opportunities exist in the industry?	70%	0%	30%
Do trained personnel databases exist?	0%	100%	0%
Does the government invest in training?	53%	47%	0%
Do serious skills imbalances exist?	50%	9%	41%
Are skilled workers difficult to find?	94%	0%	6%
Are the skills you need available?	6%	88%	6%
Do formal links exist with training institutions?	23%	71%	6%
Is training investment important?	64%	30%	6%
Do you invest in training?	35%	47%	18%
Are management-labor relations good?	53%	12%	35%
Are existing training institutions capable?	23%	42%	35%
Do existing training institutions have many disadvantages?	65%	0%	35%

Based on interviews of 12 companies and 5 sector organizations. Question/answer pattern was not followed in every interview, but informal conversations conveyed answers to most questions. Not all questions were asked of sector organizations, and some informal conversations did not convey answers to specific questions (these are reflected in "No Answer" column.)

ANNEX VI.3

CONCEPTS AND PERSPECTIVES OF PRODUCTIVITY²⁰

Productivity is a concept whose term has been abused because there has been no disciplined intent to develop a solid conceptual framework for productivity. The rhetorics we find on productivity are astonishing and misleading for anyone wishing to understand how to improve productivity. In almost all professions and disciplines the term *productivity* is being used without clearly explaining its meaning. Therefore, the meaning of productivity must be synthesized, clarified, defined, and conceptually structured.

What is productivity management?

Figure VI.3.A1 illustrates a basic model for productivity management. This process includes the following: (1) measuring and evaluating productivity; (2) planning for control and productivity improvement based on information provided by the measurement and evaluation process; (3) making effective interventions for control and improvement; and (4) measuring and evaluating the impact of these interventions.

As a starting point, the different terms used in the model are defined, and the main components are analyzed.

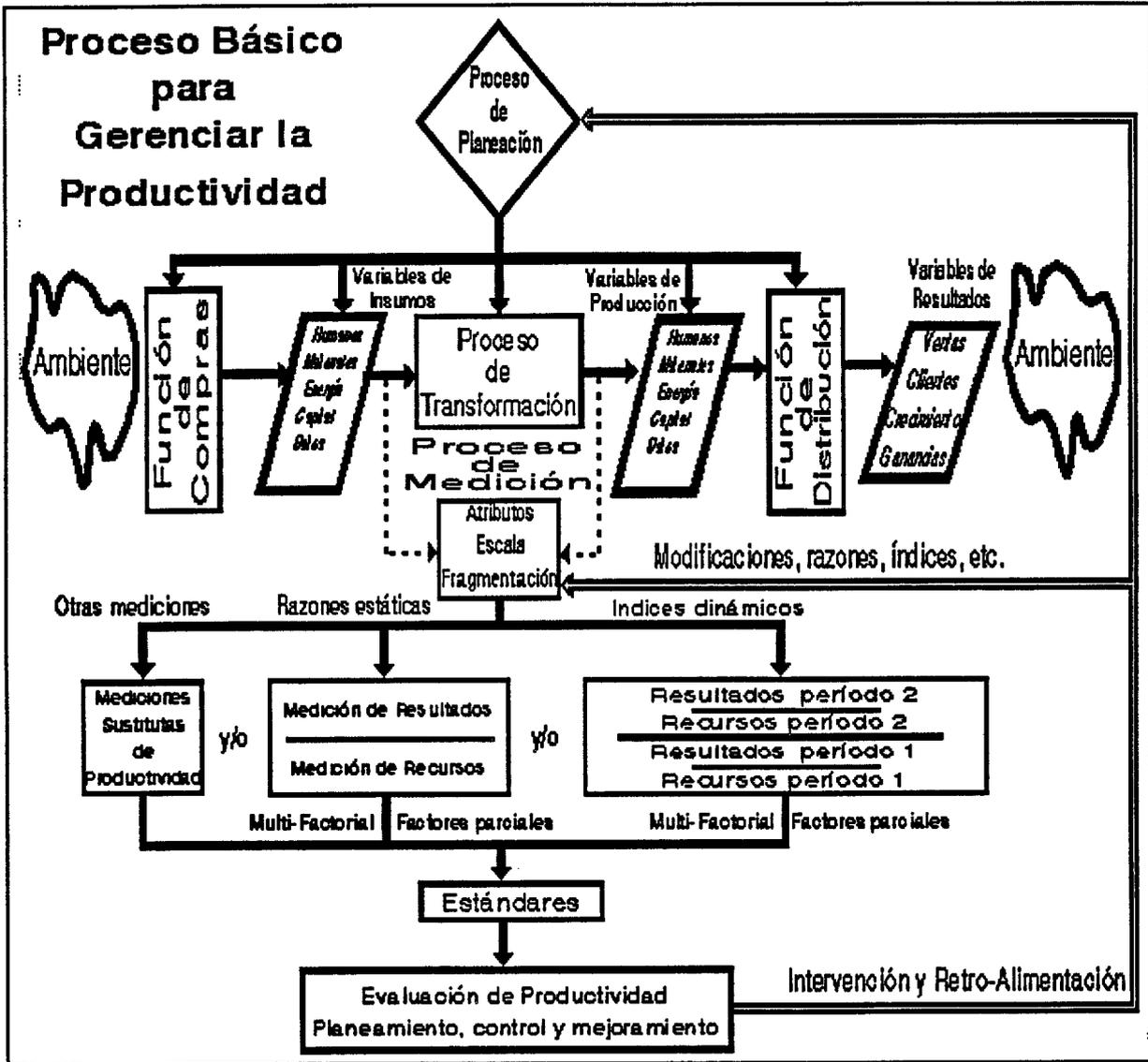
Input Variable: Any factor or resource that is controllable and that can be acquired in different quantities, types, and/or qualities (such as energy, people, materials, and data)

Process or Transformation: Any change in shape, appearance, condition, function, personality, character, etc., of an input variable (such as fabrication, education, training, and processing)

Output Variable: Any factor or resource that is controllable and that results from the transformation of the input variable (such as energy, people, services, and data/information transformed into products and/or services)

Figure VI.3.A1

²⁰This annex, written by Michael J. Bolaños Davis, provides a clarification of what is meant by productivity management and is an integral part of the Labor Force Assessment in textile and leather goods industries in Ecuador. Reproduction by any means without previous written authorization from the author is prohibited unless it is attached to the previously mentioned assessment funded by USAID and developed by AED.



Outcome Variable: The result(s) of selling and/or delivering an output variable to persons or organizations in the environment of an organizational system. By definition, this element should not affect productivity, but when additional attributes are incorporated to the services or product delivered (customer expectations), the limits of the transformation process are extended.

Attribute: A unit of measurement or identifiable characteristic of a variable (such as size, color, age, personality, quality, quantity, weight, and kilowatts). A variable may be described and defined by one or more attributes. Relative attributes are often incorporated to the perception of customers to describe products and/or services.

Measure: The development and/or selection of a scale with which to assign *identifications* to an attribute according to certain predefined "rules." The term *identifications*, refers to numbers, letters or symbols. The term *rules* refers to some valid process, both consistent and logical, for associating the attribute with the scale.

Productivity Measurement: The selection of physical, transitory, and/or perceptual measurements for input and output variables (in some cases even for outcome variables) and for developing a ratio between output and input measures.

The use of time cards (*an attribute*) to measure human resources input (*an input variable*) for many activities performed (*processes or transformations*) illustrates the application of the above terms. These activities can also be measured in terms of their quality, timeliness, methodology, etc. (All corresponding to *attributes*). These activities, if designed correctly, create products (*output variables*) that in turn can also be measured in terms of their quantities, qualities, timeliness, and costs (all corresponding to *attributes*). In general, input variables, transformation activities, as well as products and/or services, must have well defined *attributes* in terms of quantity, quality, timeliness, and costs or prices. All products and/or services delivered to customers (internal or external) create *results*. That is, customers pay for, use, and react to products (goods and/or services) they receive, and these results as measures of system performance should be monitored.

In a very simple form, there are two general categories of pure productivity measures. The first, *productivity static ratios*, corresponds to calculating the ratio by dividing results by resources for a specific period. The second, *productivity dynamic index*, corresponds to dividing the productivity static ratio of one period by the productivity static ratio of a previous period, obtaining an index that reflects productivity changes between both periods.

Each general category has three types of productivity: partial factor, multifactor, and total. Each of these types represents one relation of products to resources, but the types differ in terms of the number of input variables combined in the denominator of the ratio. When only one input variable (labor, energy, data, materials) is used, it is called *partial factor measurement*. When various but not all input variables are combined, it is called *multifactor measurement*. When all input variables are combined, it is called *total measurement*.

Generally, results are incorporated in the numerator of the ratio. If this is not the case, we would have the same types of productivity measurements described above (*partial, multifactor, or total*).

Two additional terms are necessary to complete our illustration of the basic productivity management process:

Productivity Management: The process that includes the strategic and activities planning, as well as a critical emphasis toward effective and continuous implementation of measuring, evaluating, and improving of productivity.

Productivity Improvement: The result of managing and intervening in critical work and transformation processes. Productivity improvement will be attained if any of the following conditions are caused:

- Products increase; resources decrease.....

- Products increase; resources remain the same.....

- Products increase faster than the resources.....

- Products remain the same; resources decrease.....

- Products decrease slower than resources...

Organizational System

An organizational system is defined by the elements of the system and the relation between these elements. Work groups, functions, divisions, plants, cities, departments, organizations, companies, corporations, and stores are all examples of different organizational systems. It is important to visualize what is meant by productivity: that the limits of the organizational system be defined by identifying all elements that are outside of the system and all elements that belong to the system.

The greatest difficulties with productivity measurements are due to ill-defined boundaries of the system under evaluation.

There are different types of organizational systems, and each system will have its own operational characteristics, different combinations of resources or input variables, different transformation processes, different combinations of products or output variables, different relations with the environment, etc. But each organizational system has all the elements illustrated, and, more important from the perspective of productivity, each system uses

quantities of resources for which it pays a price for each type of resource and distributes or delivers products for which it receives a price for each type of product. These common elements are critical to develop proper understanding of productivity.

Theoretically, productivity measuring seems very simple: First, measure results and place this figure in the numerator; second, measure resources used to generate those results and place this figure in the denominator, and third, calculate the corresponding ratio. Because of various difficulties, the process is not so simple:

- An organizational system may have multiple products and/or services.
- An organizational system faces continuous changes in prices and costs.
- An organizational system could require redesigning its products, services, and processes continuously.
- An organizational system must incorporate other performance measures as quality, effectiveness, efficiency, profitability, and quality of work life.
- An organizational system has multiple categories, types, and levels of resources, each with specific costs and other unique characteristics that must be considered.

Productivity management is interrelated in a vital way with quality management (the process that assures quality—transforming resources into products and/or services that meet all customer expectations); planning (the process that determines what is required to be effective); measuring work and budgeting (the process that facilitates evaluating efficiently); controlling accounting (the function responsible for evaluating profitability); and personnel (the function responsible for quality of work life). But many firms ask the important question: who is responsible in this organization for productivity management?

According to Peter Drucker, “productivity is the source of all economic value.” Therefore, the first test of management performance is productivity.

CHAPTER VII CONCLUSIONS AND RECOMMENDATIONS

CHAPTER I: INTRODUCTION

Conclusions on Policy Reform

- Ecuador's long-term history of social legislation and import substitution has distorted job and skills demands and made the country industrially low competitive in industry.
- University education is more in the political sphere than in the educational domain.
- Support for dismantling the control economy and instituting modernization of the state and liberalization of trade grew in the 1980s, and the current Government won the 1992 elections under that banner.
- Many political reforms have been legislated, but implementation of them has been minimal.
- Labor reform has not been promulgated by this Government.
- The private sector, as reflected by its chambers' declarations, generally believes that labor reform requires annulment revision of the current code that dates from the 1930s and portrays labor-management conflict rather than collaboration towards mutual ends.
- With the attitude and actions of modernization of Government comes an express aperture towards the private sector to be a partner in management of the country. The Government role is to become a facilitator and supervisor rather than a heavy-handed controller. The reality, however, is that implementing this new paradigm has not marked an accelerated pass. Privatization, customs and port reforms, and debureaucratization have become bogged down by narrow political and interest group pressures. The neighboring countries of Colombia and Peru have sprinted ahead in their macropolitical, economic, and institutional reforms, while Ecuador stays mired down in intentions and paper reforms rather than action.
- To establish the enabling environment for Ecuadorian industry to compete on an even playing field in global commercial rivalry, the Government must overcome hobbling special interests and proceed to implement policy reforms in education, customs, labor, taxation, social security, and other areas. Such reforms will pave the way for industry to dedicate itself to the business of doing business. With this will come a productivity-based focus on enhancement of human resources and management-labor relations.

Recommendation on Policy Reform

- Interest group obstacles should be overcome and the Government should implement reforms that will create an enabling environment for Ecuador to become competitive on the world market.

Conclusions on Worker Trainability and Education

- The formal education system is neither designed nor budgeted to provide school leavers who respond to market needs and demands. The system and curriculum do not encourage the development of responsive, problem-solving students. The budget restraints do not permit salaries that attract highly trained or motivated teachers, nor can adequate physical plant and materials be provided for the young population. Also, teachers in the public schools are mainly products of the deficient public universities.
- Secondary education is still heavily directed at preuniversity, liberal arts studies. Nevertheless, most students do not graduate from university, and most of those who do graduate earn a graduate degree in a liberal profession, thus causing an oversupply in this field. Despite a healthy growth in technical schools, the vast majority of middle school students in these institutions major in administration.
- Although the orientation of public university education has been in a sociopolitical one, it needs to become an educational one so as to serve its students and the market demands.
- Increases in labor productivity will be directly linked to curriculum and budgetary reforms, particularly of basic education.
- School leavers who can reason deductively, communicate clearly, and resolve problems will automatically be more productive workers than those turned out by the public school system of today. Beyond this, they will be able to maximize their learning in further education and training.

Recommendations on Worker Trainability and Education

- The urgency of implementation of the projects of development and betterment of quality of basic education and of doubling the budget applied to it should be acted on as the highest priority.
- The private sector, through its federations of Chambers of Commerce and industry (Cámaras de la Producción), should participate in project redesign or amendment and in supervision of education implementation to assure that public education, particularly at the primary level, produces students with the skills to face life as productive individuals, rather than as learning-handicapped ones.

Conclusions on Private Sector Orientation, Competitiveness, and Productivity

- The orientation of the manufacturing private sector has been very much molded by the socioeconomic-political legislation and heavily centralized system of Government from the 1930s through the late 1980s. The overall framework of social protection, Government imposition, and import substitution has cultured a private sector orientation that can be summarized in the word "circumvention." The business of industry, by and large, has not been to make products to meet precise demands nor to operate in a highly productive fashion. As the Ecuadorian market was protected from sophisticated competition from abroad, the real business became to sidestep perceived overprotective labor laws and taxation. Greater profit could be made by avoiding large worker compensation settlements (by not retaining workers for too long) or by avoiding showing profits. Because avoiding paying their full business income taxes is easy, formal sector companies often view this tax savings as an indication of productivity when investment in worker improvement, for instance, should be the priority for productivity.
- The shift to a liberalized economy, labor law reforms, and a Government that encourages private sector participation in policy and actions previously monopolized by the state should cause the manufacturing and commerce sectors to take an orientation of proposing and doing rather than of protesting. One of the focuses will be on the competitiveness and productivity factors that will allow prospering both in the home market and in the international markets. This, in turn, will embrace labor productivity enhancement.
- This metamorphosis is already happening under the leadership of the Cámaras de la Producción and Nongovernment Organizations (NGOs), particularly the Chambers of Industry and of Commerce in Quito and Guayaquil, the Federación Ecuatorana de Exportadores/COPEX, and the Fundación Ecuador.
- The Congreso Nacional de Industriales held in January 1994 was the best example to date of collective private sector adherence to the new modality of aggressive proposal and the promise of implementation in alliance with the state. As a result of this Congress came an important and comprehensive document¹ that addresses the entire gamut of restraints to Ecuador is entering forcefully into the mainstream of global industrial competition.

Recommendation on Private Sector Orientation, Competitiveness, and Productivity

- The Congress recommendation of close collaboration among the Government, particularly the Ministry of Industries and Commerce, the proponent groups of the private sector, and labor to bring about a wide-based competitiveness and productivity transformation that will permit Ecuadorian products to compete at home and abroad should be acted upon.

¹ *Memorias: Congreso Nacional de Industriales, Enero 12-13-14 de 1994, "Federación Nacional de Cámaras de Industrias y Cámara de Industriales de Pichincha.*

Conclusions on Information

- Databases, in general, in Ecuador are inadequate and are not frequently updated. Labor databases are no different. The recompilation of data to establish training needs and demands is sparse. The raw data collected, such as general census and the quarterly household surveys, are not readily shared with institutions and projects (such as this study) that need the data for purposes not encompassed by the institutions carrying out the surveys. Even the state training institution, Servicio Ecuatoriano de Capacitacion Profesional (SECAP), has a poor record in basing its curriculums and instruction on market research.
- With the rapid changes occurring at both macrolevel and operational levels in Ecuador, employment and skills demands research needs to be carried out frequently because information ages quickly.

Recommendations on Information

- The continuous collectors of survey data (such as INEC, CONADE, and Banco Central) provide greater disaggregation of information and develop information sorts and grids to serve more needs. When this is not possible, they should provide freer access to raw data so that users may produce specific information needed.
- A mixed sector Consejo Superior de la Informática (information and database commission) should be formed for two reasons: (1) to define who needs what information for what purposes, with what frequency, and at what level of detail and (2) to draw up a practical structure and plan to collect, tabulate, correlate, and distribute with a minimum of collection overlap and a maximum of timeliness.
- Two levels of database development should be considered in relation to labor market databases: one that relates to the specific field and one that incorporates and correlating the first level with the wider issue of international competitiveness.
- The Consejo Superior de la Informática should recommend an apolitical institution to provide the service.
- One or more proven private sector firms should be contracted to design or redesign the assigned institution not only to formulate a nationwide labor profile and industrial skills requirements study model but to set the basis for competitiveness and productivity measurement models that will interlock with those used in other nations.

CHAPTER II: THE LABOR MARKET IN ECUADOR

When functioning efficiently, the labor market allocates labor to its most productive use through price signals. These prices allow firms to produce a specific quality of good at the lowest cost. Prices also provide individuals good information about the relative benefits and opportunity costs of investments in their own productive assets (human capital).

When the goods market experiences change in demand or when the capital market changes the relative return on different kinds of investments, the labor market is the mechanism for shifting and reallocating labor. If the labor market cannot send the new signals (new relative prices for different activities), then labor does not reallocate efficiently, and the economy does not adapt well to changing conditions.

This inability to reallocate labor efficiently can be the result of interventions in the labor market, lack of information, or imperfections in other markets. In Ecuador, the functioning of the labor market has been examined by focusing on trends in employment and remuneration, labor market institutions, and imperfections in other markets that may adversely affect the ability of the labor market to efficiently reallocate labor.

Findings: Low Productivity and Low Earnings

- Population, rather than increasing participation rates, has led to growth in the labor force of about 28 percent in Ecuador. Participation rates have remained relatively stable and women's participation rates remain almost 30 percentage points less than those for men. Much of the growth in the number of employed persons is in informal sector employment where productivity and wages are lower. Of the total gain in aggregate employment, excluding domestic service and agriculture, 70 percent was added employment in the informal sector while 30 percent was added employment in the modern sector.
- The tendency for a greater share of labor to be employed in the lower productivity and lower wage informal sector has implications for earnings and living standards. The total wage bill as a percentage of a gross domestic product fell 38 percent between 1985 and 1992. The effects of increasing informality is especially troublesome for women. At lower levels of education (no education or some primary), women are half as likely as men to have modern sector employment.
- The differences in mean monthly earnings between those with no education and those with some primary education fell by about 33 percent between 1989 and 1993. Also, differences in mean monthly earnings between those with some primary education and those with some secondary education in the modern sector are very small, thus indicating that the return to more education is not well rewarded at the primary and secondary level. This can be the result of a shift in the technology mix toward processes that use very little skilled labor, a reflection of the quality of the education system, or the present labor laws or all of these.

Recommendation on Educational Reform, Modernization of Public Institutions, and Industrial Policy

Public policy that attacks the root causes of poverty must address both the quality of education and the quality of jobs being created. Improving educational quality involves both the rationalization of the system and a reorientation of the content of the system to produce basic knowledge and critical thinking skills that can be refined and oriented towards specific jobs and occupations several times over a working life.

It is not enough, however, just to concentrate on the supply of labor. Without attention to demand in terms of how many and what kinds of jobs are available, an educational reform will simply not be successful. Children and their families make rational decisions. They will only sacrifice the foregone income implied by remaining in school if they see schooling has a clear benefit to their future working life.

Creating better and more jobs is not an easy matter. Evidence from the newly industrialized countries suggests that the state can and must play an important role in using macroeconomic policy, fiscal policy, and other interventions at its command to promote higher-skill and higher-value added employment.

A state cannot exercise its options in promoting better employment if it is too weak or lacks the transparency necessary to win the confidence of all sectors of the economy. A state that allows interventions to be used to subsidize private interests over public interests will ultimately fail all. Therefore, political and institutional reform to make the Ecuadorian state more democratic and transparent will play a key role in providing better opportunities for its citizens.

Findings: Labor Market Institutions

Conventional wisdom among some sectors in Ecuador is that rigidities in the labor market because of labor market institutions are the principal cause of rising levels of informal employment. The principal component of the labor market institutions in Ecuador is a labor code that is seen by some as overly protectionist and decidedly pro labor. The empirical evidence of rigidities imposed by such a code would be significantly higher wages in the most protected sectors (in Ecuador, modern sector industry and public sector employment). However, even as early as 1990, modern sector wages were falling relative to informal sector wages as were public sector wages relative to private sector wages. Between 1990 and 1993, the differences in mean wages between modern and informal sector employment for workers with some primary education (50 percent of the informal sector work force) fell 14 percent. In general, real wages in Ecuador have proved to be quite flexible (downward), despite popular perceptions about the labor code.

The labor code is also perceived as adding unnecessary labor costs by its provisions for stability in employment. Anecdotal evidence from employer interviews indicates that employers feel they are forced either to carry unneeded employees or to resort to other methods to achieve needed flexibility in the size of the work force. These methods include the use of "prueba" contracts, which allow the employer to terminate employment in 90 days without any separation benefits liability. Since 1991, reforms have also allowed other types of short-term contracts with no or reduced liability for severance benefits. While these contract regimes allow increased flexibility, they incur some costs as new employees must constantly be oriented or trained as well as recruited. In some cases, the employer operates clandestinely to avoid any of the stability provisions.

Constant rotation of personnel and remaining small to go undetected incur additional costs. However, that employers are probably making efficient decisions; that is, they are weighing the costs incurred in recruiting and orienting new employees when deciding how to contract employees. Those who do decide that high turnover or clandestine operation is the

preferable option would tend to be those with low levels of technology and low productivity. To assert that it is only the labor code stability provisions that cause these employers to use these methods ignores a number of other explanations about the incentives for continuing a that is low technology, low productivity where the only productivity production process gains possible are through reduction in wages.

The collective contract provisions of the code are also mentioned (possibly more by economists than entrepreneurs) as producing rigidities in the labor market. By definition, unions do provide a wage premium over nonunion labor (otherwise, there would be no need for a union). While we were not able to find comparable studies in Ecuador, a number of studies in developed economies indicate that, in some cases, the additional costs of union wages are offset by having more reliable and better trained personnel.

In any case, the reforms of 1991 have weakened unions in Ecuador. Labor conflicts in terms of strikes have been reduced by 50 percent in just the last four years. Decrease in state enterprises have reduced and will substantially reduce the number of union members, and in the private sector, 30 percent of the 350 union members affiliated with the Unified Workers Front (FUT) have been left without employment just since 1990.

Strategies to avoid possible unionization, such as splitting up larger firms into ghost companies of less than 30 employees, the legal minimum for unionization, and informal/clandestine operation, add costs to production. Again, it is assumed that managers are correctly calculating the benefit cost ratio of these actions. It may be, however, that public perceptions of unions remain from when the Ecuadorian economy was relatively closed to outside competition and monopolies were able to share rents with their employees (rents also in the sense that some portion of the revenues was due to the power of OPEC to artificially control the price of crude oil). The generous wages and pro-labor stability provisions of collective agreements were based on the ability of firms to pass along those costs to consumers in the closed market. To this point, much of the cost of opening the market has been borne by labor.

Although perceptions of the costs of the current labor regime are greater than their real impact, or at least less important than other factors alluded to in various parts of this report, some gains are certainly possible through making the norms surrounding labor contracting more transparent. The division of salaries into some 16 components makes planning and estimating more difficult and costly both for employers and for those charged with regulatory and policymaking responsibilities.

While this transparency would reduce costs, it is not always labor that is hesitant to institute these reforms. Many businesses seeking to protect their position in the face of reform. For example a good number of firms interviewed were opposed to unifying salaries because of the implication that such a reform may have on tax incidence and social security contributions.

Perhaps the most important impediment to foreign investment is the requirement of distributing 15 percent of net profits to employees. While a number of interviewees suggested that it was possible for local firms to maintain separate accounts and manipulate the system

to reduce their liability for this payment, foreign firms without this experience in the local system consider this 15 percent a direct tax on their profits.

Recommendation to "chip away" at Institutional Impediments Rather than Pursue Radical Reform

Considerable political capital would be necessary to make radical reforms in the labor code. Organized labor and workers in general have already borne a great cost in the modernization of the Ecuadorian economy. Until recently, real wages were on a precipitous decline, and union membership and power have been greatly weakened in the last five years. Radical reforms that would have the impact of reducing the cost of labor through lower wages would be unacceptable.

Although both labor and management could realize gains by making the system more transparent, it is business owners who are opposed to reforms, such as the unification of salaries. A business culture that developed in an era of protection rather than competition will change as a more open economy forces more emphasis on productivity

Our recommendation is in line with a previous study that suggests "chipping away" at inefficiencies in labor market institutions rather than pursuing radical change. The cost is too high for such change, and the institutions themselves represent less of a constraint to development than other macroeconomic factors and issues about business practices.

The stipulation of sharing of 15 percent of after-tax profits may be one area where reform could have a marginal effect on increasing foreign investment and establish a more transparent climate. Labor's perception (which is generally recognized in the business community) is that businesses manipulate their accounting to reduce their liability. The possible elimination of this component in exchange for salary concessions could eliminate what is seen as a direct tax by foreign investors, and at the same time eliminate a yearly confrontation between labor and management and promote more transparent business practices.

CHAPTER III: VOCATIONAL AND MANAGEMENT TRAINING

There are a myriad of contradictions about training in Ecuador. While there is near unanimous agreement to its benefit, particularly to be able to compete in the open market, employers are hesitant to invest in training. Training that takes place does not contribute to job promotion or increased production. Vocational education does not respond to the needs of the private sector. Facilities are obsolete, usually providing only the most basic skills that also can be learned on the job. Technological modernization has been slow in Ecuador because of previous protective market policies.

The contradictions are complicated by a complete divorce between public sector training and private industry. Public sector training remains supply oriented, and industry has not demanded according to its needs. There is considerable overlap between the two sectors in the provision of midlevel management and administrative training, but the public sector holds a virtual monopoly on vocational training.

Weaknesses in the basic education system contribute to the low productivity of the Ecuadorian work force. Workers lack basic life skills, such as logical reasoning, giving and taking directions, ordering priorities, and clear thinking. This handicap is observed throughout industry, from the worker level to upper management. For the present work force, intensive training would be able to improve these skills, but it would be costly and time consuming. Educational reforms are needed in the basic curricula to emphasize these life skills and prepare students to enter the work force.

The educational reform currently underway in Ecuador is promising. However, it will be many years before the effects of new curricula, textbooks, and teacher training will be felt in the work force. In the meantime, as managers realize the value of investing in their work force, adult education training could take place through the existing private sector institutes. These courses would differ greatly from existing courses in their content and methodology. Emphasis would be on participation, adult education, and experiential learning methodologies, which would encourage workers to reason and work together to develop solutions.

In addition to basic educational skills, management is the biggest obstacle to increased productivity. Managers have suffered from the same educational deficiencies as workers. They are reluctant to grow, experiment, invest, and take risks. The challenge is in finding ways to convince managers that they need to invest in themselves.

Information on training needs assessment and projections about labor demand are not available. Based on the projections made by the sector specialists for this assessment, all the sectors have growth potential. However, the growth potential does not translate into a significant increase in employment. Growth in agroindustry and metal fabrication will result from increased mechanization. Growth in textiles, apparel, and leather manufacturing will create new jobs, but primarily for unskilled labor. The need for training will be in management, particularly for the upper-level managers.

Gender discrimination is found throughout all levels of industry. Cultural traditions prejudice women's ability to choose nontraditional fields. Women are found in the lowest paying jobs and are concentrated in the informal sector.

Reforms are needed if Ecuador is to compete in international markets and attract foreign capital and if training is to be viewed as a worthwhile investment by the private sector.

The following recommendations are made with regards to vocational and management training.

- A few nongovernmental organizations (NGO) provides technical training in leather, metal mechanics, and other fields. Participants pay to attend, and these programs are usually linked to a credit plan. The businesses served are at the microlevel (less than 10 employees) or the very smallest of the small businesses (10 to 50 employees).
- Management training is usually a requirement for small businesses that access loans through NGOs. Between 1986 and 1990, an estimated 42,000

entrepreneurs participated in some form of management training.² This training is usually highly personalized, tailored to sector-specific and/or size-specific firms, and oftentimes directed at the owner.

- Since 1992, SECAP, with funding from the World Bank, is implementing an adult education and training project with one of its objectives to develop basic education and training (functional literacy) programs directed to the poor. The project works primarily with microentrepreneurs and stresses literacy and provides mobile workshops marginal communities. It is projected to reach 20,000 microentrepreneurs and establish 10 community workshops. To date, the project has made no significant impact on training in the nonformal sector.
- There is insufficient data keeping and information gathering capabilities to project future training trends and needs. This was recognized and incorporated in the SECAP/World Bank project in developing graduate tracer studies, and impact evaluations to better respond to labor market demands and to identify collaborative possibilities between the nonformal and industrial sectors.
- At SECAP, programs have been designed to try and bring training and employment closer together. However, the programs are isolated from the institution and its perceived mandate. The programs, while attempting to address real training and employment issues, exist within a vacuum in the institute. They do not rectify the major institutional barriers to develop responsive training programs. Many institutional evaluations of SECAP have been carried out over the years. Although institutional weaknesses have been recognized and projects have been designed to address some of the weaknesses, nothing has been done to implement fundamental changes within the institution.

RECOMMENDATIONS

- NGOs and specialized private training institutes may be well situated in certain communities and in specific industrial sectors (such as leather) to undertake technical training on a larger scale. There are efficient NGOs that have a proven track record of training microentrepreneurs in technical areas. Building on this role, they may have more flexibility to liaise with specific industries to determine training needs and supply appropriate training.
- While there is debate on the value of "women-specific" programs, efforts should be made, particularly by NGOs, to train more women in nontraditional fields in programs that include a strong job placement (or self-employment) component.

²Fraser, Peter, Arclis Gomez Alfonso, Miguel Rivarola, Donald Swanson and Fernando Cruz-Villalba, *Ecuador Micro-Enterprise Sector Assessment: Institutional Analysis*, March 1991.

- For the already employed work force (including self-employed), adult education training could take place through the existing network of nongovernmental organizations. Emphasis would be on participative, adult education and experiential learning methodologies that would encourage workers to reason and work together to develop solutions.
- An in-depth institutional analysis of SECAP needs to be undertaken to identify financial and human resources constraints to its flexibility and modernization and to make recommendations for its future role, among other things, to provide training to the nonformal sector.
- An in-depth institutional analysis of SECAP needs to be undertaken to identify financial and human resource constraints to its flexibility and modernization and make recommendations for its future existence along the following lines:
 - SECAP should be detached from the Ministry of Labor and made an autonomous institution.
 - The SECAP board of directors should have equal representation between the public and private sector.
 - Special satellite advisory commissions should be formed and would be composed of equal representation from the public and private sector. Their responsibility would be to keep curricula current, recommend purchasing of essential equipment and machinery, recruit instructors, oversee job placement, and evaluate sector performance.
 - SECAP should downsize the permanent faculty of instructors and incorporate part-time instructors employed in specific industries.
 - SECAP should develop curricula based on broad skills acquisition.
 - SECAP should focus training on never employed and unemployed, leaving training of employed workers to the private sector.
 - SECAP should coordinate sharing of installations with private sector and technical high schools .
 - SECAP should modernize the infrastructure, machinery, and equipment throughout the country.
 - SECAP should terminate courses that are not well attended or are outdated and move other courses to different centers based on demand and sector specificity.
 - SECAP should study other public sector training models from other countries (such as Colombia) for ideas on restructuring SECAP.

CHAPTER IV: AGROINDUSTRY

Conclusions and Recommendations

- The FP/NTAE subsectors, in the absence of sound agricultural policies and development of a more value-added chain, show no need for more available labor and are not concerned about labor qualifications and training. Industries in both of these subsectors are not yet aware of the significance that quality issues will have in the future as they try to promote more exports and as they try to compete with increasing number of better-quality imported products.
- The most successful nontraditional export products have not needed to develop any type of major marketing efforts to sell their products abroad, and the international market buying mostly fresh and minor processed fruits and vegetables (frozen, concentrates and juices) have not demanded any significant quality assurance from suppliers.
- Brand marketing is not regarded as plausible in the short term for Ecuadorian producers, and not a single NTAE organization has the qualified human resources required to succeed in differentiating their products in the international arena. Benchmarking Ecuadorian FP/NTAE products with other products, such as Goya products in the United States, could be vital for the future. Otherwise, for Ecuadorian producers the quality battle will be fought in Ecuadorian markets on a reactive basis to survive.
- Growth for the FP/NTAE subsectors will depend on development of its agricultural base, increasing availability of fresh produce for processing industries. As of now, product diversification and productive farming are more important from any perspective than any of the existing FP/NTAE processing industries. But, Ecuador needs to articulate a sound strategy for future agricultural production and to consider environmental issues, deforestation, farmland degradation and erosion, protection of ecosystems, and employment.
- With high levels of unemployment and extremely low wages, especially in the rural areas, increased productivity must be on total inputs, placing more emphasis on crop yield per unit of land instead of per unit of labor. This will also favor reducing the level of deforestation and farm land degradation. Product diversification must be supported by adequate research of new high yield crops, increasing output per unit of land as the primary source for productivity growth.
- Education of farm people through effective formal schooling, organized and effective extension activities, and agricultural publications should contribute to the rapid diffusion and efficient use of new technology. Proexant has contributed effectively to promoting NTAE, and more should be done to properly diffuse its publications and manuals.
- Transportation improvements should reduce the cost of industrial inputs and the cost of marketing. Other improvements in rural areas, as communications (mail and

telephone), should exert a veritable impact on agricultural productivity. The future of the FP/NTAE subsectors will depend on adequately dealing with these issues.

- The Labor Code should be changed to a flexible and easy-to-administer code, that responds to the needs of present and future strategic development of the agricultural sector. Ecuador's agricultural sector must not be forsaken, and lessons from the Venezuelan oil-boom experience must not be ignored.
- Ecuador's petroleum benefits should be distributed in a more equitable way by reducing the hardships placed on urban areas because of migration from the rural areas and villages and by providing a better quality of life and opportunities in those areas. Government funding for education, agricultural research, and infrastructure must be increased and must effectively reach those areas.
- Ecuador's Institute for Norms' (INEN) role should become more transparent and more professional, granting registrations and certifications only when products meet requirements and conducting ongoing verifications for all registrations and certifications granted. Consumers lack of trust on INEN performance is one of the most critical issues concerning quality and one that must be dealt with immediately. Consumer protection groups and organizations must be supported as they must develop capabilities to accomplish their objectives.
- Ecuador's legal system must be reformed to a more just and expeditious system. Commercial transactions cannot be effective with all the legal documentation and requirements imposed by an outdated legal system, conceived to justify the services of lawyers in every stage. This is probably the greatest barrier in attracting foreign investment and one of the most significant social costs, probably only surpassed by the inefficient and ineffective formal educational system.
- The Government of Ecuador will undoubtedly need to support many activities through existing or reformed governmental institutions, but it must be cautious not to boost bureaucracy and inefficiency by increasing employment in these institutions. Agricultural research services and many other support activities can and should be contracted with nongovernmental organizations. To illustrate, if present governmental efforts to promote Ecuadorian exports contemplate creating and staffing new organizational units at the Ministry of Industry, these efforts will result in a complete failure. Instead, only an administrative unit should be staffed to administer funding, and all activities and services should be contracted outside.

CHAPTER V: METAL FABRICATIONS INDUSTRY

Conclusions

Of the companies interviewed, the multinationals and those producing goods to European, U.S. and Asian standards showed vision and a systematic approach to the problems of the market in terms of competition and the quality of training. Almost exclusively, these companies have been trained from outside and have used the most modern of training

techniques. These companies together, with the Government of Ecuador (GOE) and private institutions, could form the nucleus for a training institute offering practical experience within participating sector companies. This facility could also be actively engaged in the analysis of the sector needs based upon the conditions of the national and the world markets. Such formal links with the GOE market and the world markets. Such formal links with the GOE institutions for the continued and continuous validation of the sector training needs must be developed.

In addition, the problems of basic education require a complex mix of reforms, private investment, and Government assistance. The only identified reforms were those addressing teacher training, the supply of additional teaching materials, and a proposed increase in the number of schools while curriculum modifications were apparently ignored.

A number of weaknesses in the sector are attributable to the vagaries of the training programs of both private and public institutions. Other problems are more difficult to resolve. Specifically, the lack of raw materials to develop and sustain an indigenous heavy industry causes companies to import materials and components from outside, thus eroding their ability to compete in global markets. Manufacturing facilities in Ecuador need to be developed to produce those components and engage in a structured plan of import substitution. The lack of heavy industry in the country and the need to import a substantial volume of components to complete assembly operations has led to a level of import dependency of 34 percent in the sector. Countries that have succeeded without raw materials, such as Japan, invested heavily in mechanization and technology, enabling them to produce high volume, quality products at a lower cost than their worldwide competitors.

The opportunities that exist in the sector are mainly due to the relaxation of import/export regulations and the special terms for financing. These, however, will not be sufficient unless there can be a substantial growth in the productive output and an improvement in the quality of the products being produced to make them competitive in the domestic market into which low-cost, high-quality products are increasingly entering. Also, to be competitive within the Pacto Andino, the sector has to compete on price with Colombia, which is its principal nonnational competitor.

To take advantage of the opportunities that exist will require capital investment in training and machinery to mechanize those manual operations, which are costly and economically inefficient, to increase volume and reduce manufacturing costs and inefficiencies.

Other constraints to the development of the sector are the protective labor laws, which restrict employers ability to easily remove inefficient workers and replace them with more highly skilled or productive workers. Also, but to a lesser degree, wage structures and levels encourage workers to seek work in the higher paid sectors, such as the petrochemical industry. Although the work in this industry is hard and workers are away from home, they have a rotational four-week-on, four-week-off cycle, which coupled with pay levels three to four times that of other parts of the sector, provide a substantial inducement.

The strengths of the sector are in the availability of the people in the market place ready to be trained, the diversity of products produced, and the willingness of companies to expand, given sufficient incentives and information. An example of a sector willing to grow, but

fettered by GOE policy, is the steel and aluminium subsector, where there is a reluctance to supply to the largest purchaser in the country, the GOE, because of its payment practices. This, in turn, requires the GOE to purchase outside the country, which reduces national sales and adds to the level of competition increasing the trading difficulties in the domestic arena.

Unless the Government acts swiftly with industry to produce a cohesive and realistic growth plan this country will, according to Grindle and Thoumi in Bates and Krueger (1993), stumble into the next century with a small proportion of the population benefiting from the reengineering of their operations while the majority of the country stagnates with increasing unemployment, an increasing population of disenfranchised persons with low levels of education and increasing volumes of illegal immigrants, being led by subsequent Governments that lack the initiative or vision to remedy the situation, accepting handouts from the world's organizations disposed to helping such countries. When the lack of investment in public access utilities becomes the rule rather than the exception because of the unwillingness of the GOE to institute policies that will benefit the poorer levels of Ecuadorean society and eliminate discrimination against sectors of the population, the step change in behavior necessary to produce of world class goods will be difficult to achieve.

Recommendations

The following is a summarized list of recommendations that appear in the sector analysis.

- Establish manufacturing policy standards for the industry sector.
- Ensure that standards throughout the sector are understood and complied with.
- Develop a product substitution program.
- Establish component manufacturing industries.
- Investigate and develop mineral resources for establishing indigenous industry.
- Develop an in-house training program for industry-specific needs, both in management and technical requirements.
- Restructure CEBCA to be more autonomous and effective within its sector industries.
- Develop an information sharing, cross-sector advisory body from the existing gremiales and Chambers of Commerce to identify product and market opportunities.
- Privatize the SECAP facility enabling them to be more flexible in reacting to sector needs.
- Establish basic education-level requirements for school leavers.

- Set up an export advisory body linked with the sector Chamber of Commerce and Fundacion Equador.
- Incorporate quality ideology into school and institutional training programs.
- Develop the ISO9000 methodology countrywide by use of GOE labor ministry resources.
- Make GOE military business ventures accountable for performance.
- Remove restrictive competition from military controlled companies.
- Focus attention on small and intermediate businesses.
- Target the labor force of women to encourage their entry into high-tech assembly operations.
- Modify GOE contracts to allow payment to suppliers of "finished" products to be effected prior to project completion.
- Develop training programs for women at school level to promote career development in the sector.

PROBLEM AREAS

Training opportunities

- Inadequate communications
- Obsolete processes
- Poor management skills
- Lack of will to accept decision taking
- Inadequate communications between education and business
- Insufficient understanding of world markets
- Few national quality awareness programs
- Low levels of practical tuition
- Lack of training in purchasing
- Skilled worker deficiencies
 - welders
 - painters
 - assemblers
 - cnc operators
 - robotics technicians
 - technical administration
- Insufficient training institutes
- Lack of sector-specific training
- Lack matricaria school (die/mold makers)

Development opportunities

- Poor development of natural resources
- Insufficient raw materials
- Low levels of product substitution
- Ineffective use of mechanization in production
- Lack of authority by CEBA to implement solutions
- Limited technological development
- Obsolete machinery
- Technical inability to satisfy markets
- Ineffective industry ministry
- Flat growth
- Lack of quality benchmarking against national or international competition
- De-restriction of imports
- Lack of private sector or GOE investment for sector market development
- Difficulty in managing pay system
- High energy costs
- Failure of GOE pay sales tax on purchases causing unfair competition
- GOE circumvention of domestic purchasing policy by insisting on quality standards
- Inflation causing price increases of domestic products allowing GOE to purchase outside country
- Theft of exported components from customs areas
- Contraband sales undermining domestic sales
- Removal of restrictions or impediments imposed by company registration requirements
- Removal of unfair competition from army businesses

- Poor communication between institutions and private sector companies
- Dependence upon imported goods, raw materials, and components

CHAPTER VI: TEXTILES AND APPAREL

Conclusions

At present, the Textile, Clothing Apparel and Leather Apparel and Accessories (TCA/LAA) sector shows no need to have more available labor, regardless of general claims that present labor qualifications are inadequate. Plenty of laborers are in the market, and basic training is regularly provided by the company.

The major problem is one of attitude. Neither managers nor laborers have any awareness of quality issues and are in the habit of producing and selling low-quality items. Another major problem is that neither managers nor laborers have any perception of the importance to deliver products on time.

The TCA/LAA sector should find opportunities for import substitution as well as for exporting products to the Andean Pact countries and to the international market. Whatever aim is taken the TCA/LAA sector must improve substantially its managerial and technical capabilities to be competitive.

Future development, which would reach 5 percent of the gross domestic product by 1999, would require an effective training program for up to 7,500 new indirect jobs and 22,500 direct production jobs for which plenty of labor force can be easily obtained and would require specific job-oriented training provided by employers. Short-term education and training for indirect personnel is probably more important than for direct production workers.

With the proper set of conditions present, a significant percentage of existing industries in this sector could become competitive. Therefore, the TCA/LAA sector must strengthen its industries within a global economy context, and the Government must facilitate for them to operate in the modern sector.

An overall effort to develop exports will eventually translate into more acceptable products for the domestic market, changing present perception that any product manufactured abroad is better (Ecuador is heavily influenced by this paradigm) and increasing the market share in the domestic market.

Sector organizations must provide many meaningful services. At the political level, sector organizations should denounce all unfair trade practices and coordinate efforts to eradicate these practices. At the private sector level, sector organizations must assist its members in improving overall global economy competitiveness. It is not enough for sector organizations to express their intelligence and devotion to diagnose weaknesses and threats without effective and timely actions.

Present Government vocational training in the TCA/LAA sector does not appear to have any significant impact on the sector. Vocational training in apparel manufacture is not oriented

towards industrial manufacturing, and, therefore, companies provide most of the required training for employment. SECAP should provide the required vocational training for first time workers in the TCA/LAA sector. Vocational training in the formal educational system also needs to emphasize industrial manufacturing.

From interviews conducted in the TCA/LAA sector, 88 percent responded that the skills needed were not available, but only 35 percent responded that they invested in training. Also, 65 percent responded that existing training institutions have many disadvantages.

Recommendations

- The Pelileo experience is notable and should provide lessons for other entrepreneurs to conceive innovative strategies for coordinating existing fragmented informal sector manufacturers.
- Adequate education and training has to be provided to assure that the required skilled labor force is available. All qualifications must be included in any training effort, and training should be conducted in classrooms (pretraining) as well as in-plant (on-the-job training).
- Both levels of education, primary and secondary, are for the long-term development of Ecuador. The TCA/LAA sector cannot wait for the formal educational system to satisfy these basic requirements. Therefore, for the medium and short term, adequate adult education is needed.
- For entrepreneurs and managers to conceive the importance of having a well-trained work force, they first have to be trained. Therefore, the training opportunities presented in Table VI.2 are the most critical ones in the short term. Also, because the higher educational system in Ecuador has not been capable of responding to these training opportunities, any impact on the short term would necessarily have to come from abroad.
- The present 0.5 percent tax on total wages, allocated to SECAP, should be critically reviewed. The Government of Ecuador should create new ways to encourage companies to provide adequate training opportunities to their employees.
- The present labor code must be reformed to be a more transparent and easier to administer system. Also, it must be flexible enough to facilitate creative ways for motivating the work force to new levels of productivity without sacrificing the protection labor needs from abusive employers.
- Laws concerning incorporation must be simplified and permit more businesses to integrate the formal sector. Strict requirements should be levied only for companies going public through the stock market. Government's paternalism should be kept to a minimum.
- Fair commercial practices must be ones of the main concerns for Government. Illegal imports, contraband, underpriced goods, and any other form of unfair commercial

practices must be fined and penalized through a more effective and fair judicial system.

- Sector organizations need to coordinate efforts to assist their members. Proliferation of sector organizations should be kept to a minimum; compulsory membership, eliminated. Most sector organizations are weak and have no clout to properly assist their affiliates. Reducing the number of associations and strengthening the ones remaining could prove critical for the future of the TCA/LAA sector.
- Educating customers to buy Ecuadorian-made products is one of many services that sector organizations can provide. This needs to have equivalent efforts from manufacturers and laborers to improve quality of products and services.

Appendix 1
Terms of Reference/Statement of Work

ARTICLE I - TITLE

Ecuador Labor Force Assessment Project (598-0659)

ARTICLE II - BACKGROUND

I. Introduction

The importance of human capital to the achievement of broadly based, sustainable economic growth is well documented in development literature. Evidence shows that in both developed and developing countries, educational investments have been one of the most important determinants of economic growth; that expenditures on education contribute positively to labor productivity; that the economic payoff to spending on education--from both a private and public standpoint--is high, in absolute terms and compared to other investments; and that increased female participation in the work force is essential to raising family incomes, especially among the poor. The conclusions of a recent study of East Asia by the World Bank further support the case for investing in education and training. In attempting to explain the impressive economic performance of East Asian countries during the last twenty years, the World Bank concluded that deliberate investments in human capital by those governments was the principal determinant (The East Asian Miracle, World Bank, 1993).

Having a strong human resource base positions developing countries to emerge as full partners in the world economy. The Inter-American Development Bank (IDB) has concluded that the greater the development of human resources relative to such other measures of development as real per capita income, the better the countries' prospects for growth and prosperity. This is because economies with greater human resources for a given initial per capita income are more likely to adapt well to changing markets and technologies.

Broader skills and higher productivity are particularly important in facilitating adjustment to changing economic conditions--which is of increasing importance as the world becomes more integrated, markets and technology change ever more quickly, and more developing countries adopt export-oriented strategies. As technology and capital become ever more mobile in the interdependent global economy, increasingly each nation's primary assets will be its citizens' skills and insights. Those citizens best positioned to exploit the opportunities presented by a dynamic, open global economy will see their incomes and purchasing power rise, while the less skilled will be consigned to a declining standard of living (Work of Nations, Reich, 1992).

With today's emerging Latin America consensus on development, human resources are seen ever more widely as central to economic development, central to social reform, and central to poverty

reduction. The poor become more productive and empowered participating in development that is more equitable and sustainable. Recent measures taken by the government of Ecuador to liberalize its economy heighten the need for that country to ensure its work force is capable of competing in an open, world economy. Passage of the North American Free Trade Agreement could be viewed as the "wake-up call" for Ecuador and other countries of the region to place increasing emphasis on making their economies more productive and competitive.

The newly adopted economic growth strategy of USAID recognizes that shortages of skilled personnel is a common problem of developing countries and a serious constraint to the achievement of sustainable economic growth. To address this problem, the strategy suggests investing in human resources, especially training in technical and management skills, as well as in appropriate institutional and policy reforms. Depending on the country situation, such reforms might seek to remove distortions in the labor market which inhibit wage flexibility and job mobility, or improve the responsiveness and efficiency of public training institutions.

In direct support of the Agency's economic growth strategy, this assessment will take a comprehensive look at the Ecuadorian employment and training infrastructure, related labor and tax laws, institutional linkages between employers and trainers, the state of labor-management relations and, more narrowly, help identify and explain the cause(s) of imbalances in skill demand and supply in four emerging industries of the Ecuadorian economy, as identified by USAID/Ecuador. These consist of: (1) Textiles and apparel; (2) Finished leather goods; (3) Food processing; and (4) Metal fabrication, including auto assembly.

II. Background

A. Labor Force

The government of Ecuador has taken several steps recently to improve the productivity of its work force. In 1991, the labor code was reformed to improve labor mobility, reduce the incidence of labor-management conflict, and facilitate employer provided training of entry level workers. In addition, efforts to liberalize capital markets have removed some of the bias against investing in labor as capital has become relatively more expensive with the conversion to market based interest rates. Collectively, these reforms are expected to enhance employment opportunities and improve the competitive position of Ecuadorian businesses.

While these reforms are necessary for Ecuador to improve labor productivity, they must be complemented by direct investments in human capital to strengthen the skills of Ecuadorian workers as Ecuador has insufficient human capital accumulation in both an absolute sense and when compared to countries in the LAC region

(World Bank, 1991).

Between 1980 and 1990, a period of economic decline for Ecuador and most of Latin America, spending for education fell 40 percent, from 5.3% of GDP to 3.2%. Moreover, a large portion of the public education budget, nearly 30 percent, is allocated to public universities which serve a small, relatively affluent segment of the student population. The education budget is so distorted that on a per capita basis university students receive more than 11 times the funding of primary students. The reduction in funds for education has created at the primary level chronic shortages of teaching materials, textbooks, and supplies; salaries of teachers have also fallen, making it difficult for the Ministry to attract and retain well-qualified personnel. The quality of education has suffered most from these budgetary constraints, with schools based in rural and marginal urban areas experiencing the steepest declines in quality. While 63 percent of primary students graduate, many do not receive an adequate foundation of knowledge and skills which would enable them to participate as fully productive members of the work force. Some observers believe that no more than half the children from low-income areas achieve a full primary education.

Although the university system receives a far greater per capita share of public funds than primary education, the quality of university education is also poor. This is partly due to a dramatic expansion in university enrollment during the last decade which far outpaced the government's capacity to support it with adequate resources. The situation is not likely to reverse itself until the universities begin to raise the amount of revenue collected from user fees which now cover only 3 percent of operating costs.

B. Economic Context

During the time that the Ecuadorian government pursued a deliberate policy of protecting national industries from foreign competition through high tariffs and other import barriers, the impact of having a weak education and training system was not of serious economic consequence. Ecuador was able to "muddle" through, perhaps better than other countries employing a similar economic model because of its oil wealth. However, recent reforms of the Government of Ecuador (GOE) aimed at liberalizing the trade and investment regime, reducing the public payroll, and privatizing parastatals will test the resilience of the Ecuadorian labor force and economy as it experiences significant job dislocations.

Lowering tariffs and eliminating non-tariff barriers will place many Ecuadorian companies for the first time in direct competition with foreign businesses. Those companies possessing a well trained and flexible work force, one able to adapt to new technologies and methods of work, will be better positioned to survive the new era of open, international competition. Efforts of the GOE to reduce costs will force many public servants to lose their jobs. For those

affected by the payroll reductions, transition times are likely to be shortest among the better educated and trained. This holds true for the redundant workers of privatized state owned enterprises as well.

Although Ecuador has relatively high aggregate levels of unemployment and underemployment, the economy appears to suffer from skill shortages in a number of key industries, thereby lowering the productive capacity of the Ecuadorian economy. Adding to the lack of human capital is the existence in most enterprises of an adversarial relationship between labor and management which tends to preclude the two parties from working together to improve productivity. Studies have found that cooperative labor-management relations help the workplace to run more effectively. In one recent study of a U.S. metal fabrication plant, the establishment by labor and management of a more cooperative working relationship was associated with 75 percent fewer worker hours lost to scrap, 42 percent fewer defects per worker, and 17 percent higher labor productivity.

The existing skill deficiency problems are expected to be compounded by Ecuador's economic reforms which should have a dual impact on the labor market: (a) job losses due to the need of inefficient enterprises to restructure their productive processes, and (b) job gains due to the expansion of employment opportunities stemming generally from the effects of a more efficient economy and particularly from greater, more diversified participation in world export markets.

Experience elsewhere has shown that training and labor adjustment assistance programs can reduce transition time between jobs and the cost to a worker and the economy of moving from areas of contracting economic activity to those which are labor absorbing, as well as improve labor-management relations in this situation. Such assistance can entail skills and interests assessments, career and employment counselling, job referral programs, short-term vocational, technical and management training programs, in-plant and exporter-specific training programs, and business planning for new small scale enterprises.

Currently, however, such a program in Ecuador is constrained by the lack of a proven institutional support mechanism and financial resources, and frequently low levels of trust between employers and workers. The national training institution, SECAP, entrusted with upgrading the skills of the Ecuadorian labor force, is not highly regarded by either the private sector or individuals. Much of the training conducted by SECAP is performed in isolation and, consequently, is considered of little relevance to the human resource needs of local businesses. While SECAP has enhanced its physical capacity in recent years, some of this capacity has remained underutilized because of the institution's inability to adapt to the changing labor market requirements. Two particular areas where innovations could be introduced are training in the informal sector and in sectors with export potential (World Bank, 1991).

Experience has demonstrated that no country can sustain economic growth without an effective and responsive education and training infrastructure. However, with adequate resources, incentives, and technical know-how, employers and the non-formal training system can, theoretically, compensate in the short-term for deficiencies in the formal education system by upgrading the skills of workers; in reality though, employers and the training system often under invest in training or train ineffectively. A number of factors could account for this, including:

- Payroll charges and tax codes may favor investments in capital over labor
- Employers lack the capacity to manage an in-house training program
- It is not cost effective for employers to train entry level workers when the legislated minimum wage exceeds the market clearing wage for such workers
- Employer fear of losing trained employees to competitors
- Employer ignorance of the benefits of training
- Insufficient tax incentives for employers to invest in training
- Employers tend to exclude the most educationally disadvantaged from training programs, preferring to invest only in the best educated workers
- Training by non-formal institutions is often of poor quality, inefficient, expensive, and unresponsive to the needs of employers
- Inability of employers and training institutions to keep current with technological advancements required especially of export oriented firms
- Longstanding mistrust between management and labor which hampers cooperative attempts to improve productivity

Other factors which may create periodic and, at times, chronic shortages and surpluses of labor in the Ecuadorian economy, include national labor laws, and the lack of timely information on the labor force. Certain labor laws, such as for example, government regulated wages and benefits, and highly protective worker layoff and severance pay provisions can inhibit wage flexibility and labor mobility, impede the adjustment of labor markets to macro-economic shocks and distort the signals given to education and training. Competitive labor markets, on the other hand, help maintain an equilibrium in skill demand and supply by allowing wages to adjust upward in times

of skill shortage and downward in times of skill excess.

Inadequate labor market information systems and communication channels between employers and training institutions limit the ability of individuals and directors of those institutions to understand fully the dynamics of the labor market and the associated fluctuations in skill demand and supply. As a result, serious mismatches often develop between the skill demands of employers and the skills being supplied by training institutions; individuals at times also wrongly invest in occupations experiencing high levels of unemployment.

ARTICLE III - OBJECTIVE

The overall purpose of the assessment is to properly assess the capacity of Ecuador to meet the labor force requirements of an increasingly competitive, and integrated, global economy, by reviewing four key sectors of the economy, as well as the national legal, regulatory and institutional framework affecting employment and technical and managerial training.

The specific objectives of the assessment are to:

- 1) Identify and explain anticipated current and projected (3-5 years) imbalances in technical and managerial skill demand and supply in the apparel and textile, leather products, food processing, and metal fabrication industries;
- 2) Determine whether the human resource practices of employers serve to promote or discourage increases in labor productivity;
- 3) Determine the effect of national labor, tax and employment laws on productive employment, training, job mobility, and wage flexibility in the four targeted areas as well as in the general labor market, if feasible;
- 4) Determine the extent to which the apparent adversarial relationship between labor and management in Ecuador constrains firms from being as competitive as they could otherwise be;
- 5) Determine the relevance, responsiveness, and internal and external efficiencies of non-formal technical and managerial training institutions;
- 6) Determine the extent to which reliable, current labor market data exists and is utilized by policy analysts, individuals and employers to allocate training resources;
- 7) Determine the degree of, and reasons for gender bias in the workplace.

Focusing on the four targeted sectors, key questions to be addressed include:

- Is it difficult for employers to locate qualified skilled personnel?
- What are the human resource problems faced by small enterprises in particular?
- Are entry level employees well enough prepared academically and technically to learn higher level skills on the job?
- How strong are the linkages between businesses and training

institutions?

- Do employers invest adequately in training their employees?
- Do employers understand the skill requirements of their businesses, in terms of what it takes to be competitive globally?
- Is Ecuador now producing sufficient supplies of skilled personnel to meet employer needs for the next five years?
- Are employers constrained by labor or tax laws from hiring, promoting, or terminating workers?
- Do wage differences across occupations generally reflect differences in labor supply and demand?
- What is the relationship between labor and management and what impact does it have on firm performance?
- What are the work place practices of employers in terms of how they utilize their employees? For example, have firms adopted a modern human resource policy which encourages worker input in all aspects of the company and invests in training and opportunities for continuous learning? Most high performance companies in the world employ such an integrated approach.

The assessment will also investigate whether females in the work force have the same opportunities as men to advance to higher skilled and, thus, higher paying jobs. An important determinant to be studied will be the gender specific effects of protective legislation on the employment of women. For example, are the maternity benefits provided under Ecuadorian labor law so generous that they provide a disincentive among employers to invest heavily in training and promoting women?

In the LAC region, women generally tend to be clustered in a few, "traditional" occupations, such as industrial sewing and secretarial administration, neither of which offer much opportunity for promotion. They also tend to be lower paying jobs than comparable jobs occupied traditionally by men, such as in the trades of construction and automotive repair. The labor market in Ecuador is probably divided along similar lines of gender. The assessment team will attempt to:

- Determine the causes of occupational clustering;
- Identify incidence of gender bias in the training provided by employers and institutions;
- Measure the impact of labor legislation on women's employment.

Because of the broad scope and complexity of this assessment, the LAC Bureau does not expect the contractor to obtain detailed information about the labor force in Ecuador within the allotted timeframe. Realistically, it is anticipated that the contractor will be able to draw some general conclusions and offer appropriate recommendations regarding the state of the labor force in the four targeted sectors (by gender, if possible), the capacity of local institutions to effectively provide entry level and higher level skills training, the propensity and adequacy of employer conducted training, degree and causes of gender bias in the workplace and in training, state of labor-management relations, analysis of work place practices of employers, and the impact of labor and tax laws on the labor market in general.

ARTICLE IV - STATEMENT OF WORK

The assessment will have two distinctive, but inter-related components. Component I will focus specifically on the work force and work place practices of employers in the four targeted sectors considered by USAID/Ecuador to be important to the economic future of Ecuador. Component II will assess the legal, regulatory and institutional framework in Ecuador which impacts the employment and training of technicians and managers, not only in the targeted areas, but across all sectors of the economy.

A. Component I

The sectors of apparel and textiles, finished leather goods, food processing, and metal fabrication (including auto assembly) were identified by USAID/Ecuador as critical to the future of the Ecuadorian economy. In order to identify and explain the cause(s) of any shortage or surplus in technical and managerial skills in those four sectors, the assessment will pursue the following methodology:

1. Industry Analysis

a) Analyze the technology and skills that will be required by the sector for successful future development

- The likely development path of the industry will be examined based on its resource endowments, domestic and international market opportunities, and rates of investment in the sector.
- The generic production processes of each sector and their respective upstream and downstream related industries, requiring a mixture of capital and labor, will be defined.
- A set of core competencies required to carry out these production processes will be developed; these competencies are likely to include technical and managerial skills.

- The core competencies will be translated into education and training requirements.

Data Sources: Employer surveys; industry studies; functional task analysis profiles; application to admission ratios of technical and management education and training institutions; newspaper advertisements for jobs; and industry employment data.

2. Identification of Current and Future Skill Supply

- a) Determine the current and projected (3-5 years) supply of individuals (by gender, if possible) possessing the required core competencies in each of the four sectors.

Data Sources: Relevant training institution enrollment data; surveys of informal training conducted by employers; professional and technical licenses issued; existing occupational census data; industry and labor force studies; employer surveys; and assessment of relevant technical and management education and training institution curricula.

3. Identification of Imbalances in Skill Demand and Supply

- a) Based on the results of tasks 1 and 2, the difference between the skills requirements for the next five years and projected availability of skills based on current output and labor flow patterns will constitute either a skills shortage or surplus that the targeted industries in the region are likely to face in the near term.

4. Analysis of Work Place Practices of Employers

- a) Determine the utilization of employees by the enterprise. Areas of study would include the extent to which employers:
- (i) invest in training and continuous learning of employees;
 - (ii) involve employees in the design of new products, new work processes, new uses for technology, hiring, and discussions with customers;
 - (iii) organize employees into service or production teams;
 - (v) attract and retain a talented workforce;
 - (vi) link compensation to individual or team performance; and
 - (vii) integrate human resources practices into the organization's long-term business strategy.

5. Assessment of Management-Labor Relationship

- a) Determine the impact of the management-labor relationship on company performance. Information to be gathered would include an assessment of the relationship between employees and managers, and unions and managers; a description of the dispute resolution process; and an analysis of the approach taken by labor and management to improve productivity.

Data Sources (A.4/A.5): Establishment surveys; employer, employee and union interviews; review of employer personnel policies, practices and related documents involving recruitment, hiring, training, salary/non-salary benefits, termination, job security, employee involvement in decision-making, etc; and collective bargaining agreements.

B. Component II

Component II has two objectives: 1) to identify the cause(s) of the skills shortage or surplus identified in component I, including effects due to gender bias; and 2) to determine the impact of national labor and tax laws, employment and training policy, and non-formal technical and management training institutions on the targeted sectors as well as on the performance of the overall labor market for both men and women in Ecuador. How these laws impact women's employment will also be assessed.

1. Analysis of National Labor Laws, Standards and Codes

- a) The entire body of national labor laws and related standards and codes will be assessed to determine its impact on job training, job mobility, wage flexibility, unemployment, labor force segmentation, and labor productivity for both men and women. Making such a determination will require that the enforcement of these laws be as carefully assessed as the language of the legislation. Relevant laws to be evaluated would include minimum wage, child labor, overtime pay, job security, severance pay, maternity leave, work schedules, vacation pay, employment termination, workers compensation, and unemployment benefits.

Data Sources: National labor legislation and related implementing regulations; formal operating procedures of ministry of labor or other appropriate agency responsible for enforcing labor laws, standards and codes; written records of non-compliance with national labor laws; occupational employment data; and employer surveys.

2. Analysis of Tax Laws which Impact Training, and Labor Utilization

- a) Those aspects of the tax law that provide incentives (or disincentives) for employers and individuals to invest in training and for businesses to employ labor rather than capital as a factor of production.

Data Sources: Relevant portions of national tax code; and government records of utilization rate of tax incentives by employers and individuals.

3. Analysis of Technical and Managerial Training Infrastructure

- a) The assessment will focus on the ability of training institutions to respond effectively to the skill needs of the private sector, especially in the four targeted sectors. Reviewed will be the relevance and quality of the training curricula; adequacy of approaches to obtain information on training requirements; cost-effectiveness of training; appropriateness of training finance structures; training outcomes for both men and women; and monitoring and evaluation system.

Data Sources: Curricula of education and training organizations; placement records of institutions; employer survey; data on training costs and enrollment; survey of recent graduates; review of instruction, training facility, training equipment, and training facilities; and evaluation of labor market information system.

V. Schedule

The assessment will be conducted over a four week period, commencing in September 1994. The tentative schedule is as follows:

Week 1 Chief of Party (COP) and RSSA from LAC/DR/EHR travel to Ecuador to schedule interviews, collect relevant studies and other secondary data sources, and finalize preparations for arrival of other team members in week 2.

Weeks 2-3 COP meets with other team members and USAID/Ecuador liaison to review scope of work, determine information needs, finalize survey instruments, and review existing studies and databases. Team conducts work force assessment.

Week 3 Team prepares draft report for mission review.

Week 4 Team finalizes assessment report.

VI. Team Member Responsibilities and Requirements

1. Chief of Party:

Responsible for coordinating the activities of the assessment team. He/she will develop the final design of the assessment, including strategies, methodologies, and operational guidelines for conducting the work. The COP will also coordinate team activities, oversee the development of the assessment instruments, monitor the work of the assessment team, integrate the findings of different team members, and coordinate preparation of periodic and final reports. The COP will be ultimately accountable for the timeliness and quality of the final report.

Specific tasks include:

- 1.a. Coordinate the assessment team's field research.
- 1.b. Consult with multilateral and bilateral donor agencies in Ecuador (IDB, World Bank, UNITA, CIDA and EEC) to determine their level of involvement in technical and management training, labor market analysis, and labor law reform.
- 1.c. Determine gaps in available data, and adjust SOWs of team members, accordingly.
- 1.d. Review legal and institutional constraints to effective development of human resources, employment, and efficient functioning of labor market.
- 1.e. Analyze the willingness of the GOE to reform labor, laws and related tax codes, where necessary, as well as strengthen technical and management training institutions.
- 1.f. Produce all required report drafts and integrate USAID/Ecuador comments into the assessment drafts of the final document.
- 1.g. Coordinate with USAID/Ecuador a meeting to disseminate findings of assessment to private sector leaders, directors of technical and management training institutions, and GOE officials from the Ministries of Labor, Education, Commerce and Industry, Trade, and other appropriate organizations.

Requirements. Experience in managing large multi-disciplinary teams involved in donor funded assessments. Ability to conceptualize ideas, plans, policies, and programs and write clearly and concisely. The COP must possess basic understanding of principles of labor economics and labor markets, vocational/technical and management training, survey design, and the Ecuadorian economy, and be able to communicate effectively with mission staff and Ecuadorian nationals. Latin American experience is preferable. Must have Spanish communication proficiency equivalent to FSI-3 level.

2. Vocational/Management Training Specialist:

Responsible for determining the current and projected supply of individuals possessing the required core competencies for each of the targeted areas. In a broader context, the Specialist will assess the efficiency and quality of the technical and management education and training institutions. In reviewing the responsiveness of the institutions, the Specialist will try to identify institutional barriers to meeting the labor force requirements of the private sector, such as weak linkages between the training institutions and employers, and the absence of reliable data on the labor

market and occupational needs.

Specific Tasks Include:

- 2.a. Determine the current and projected (3-5 years) supply of individuals possessing the required core competencies for the apparel and textile, finished leather goods, food processing, and metal fabrication sectors.
- 2.b. Assess the responsiveness, relevance, efficiency, and quality of vocational/technical and management training institutions, including the rates of return to investments in training.
- 2.c. Evaluate the impact of the vocational training system on women (as compared to men) in terms of training orientation, training program selections, and job placements.
- 2.d. Review relevant training incentives to further develop all members of the labor force, including the unemployed, underemployed and employed.
- 2.e. Determine the type of labor market information utilized by training institutions to design their training programs and evaluate its usefulness.
- 2.f. Determine the extent to which tax incentives for training are being utilized by employers and individuals.
- 2.g. Assess the strength of the linkage between training institutions and the business sector.
- 2.h. Analyze the willingness of the GOE, and private sector to initiate reforms aimed at improving the quality and efficiency of non-formal vocational/technical and management training.
- 2.i. Develop a set of recommendations to improve the efficiency, responsiveness and quality of technical and management training in Ecuador.

Requirements. Considerable experience working with technical and management training institutions in the LAC region. Advanced degree in labor economics or vocational education. The Specialist must also possess a working understanding of labor markets, the impact of labor laws and tax codes on training, and successful models of technical and management education and training. Must have Spanish communication proficiency equivalent to FSI-3 level.

3. Senior Labor Economist:

Responsible for evaluating the degree to which the labor market is functioning efficiently in each of the four targeted areas as well as in the broader economy. The Labor Economist will also assess the impact of relevant labor laws and codes on job mobility, wage flexibility, labor market segmentation, and women's employment.

Specific tasks include:

- 3.a. Analyze current data on the Ecuadorian labor market, including information on wage levels, employment by occupation, educational level of work force, unemployment and underemployment levels, and separation rates.
- 3.b. Review existing employment, wage, and labor laws and relevant tax codes and determine the degree to which they impact the labor market.
- 3.c. Identify relevant laws and tax codes that serve to constrain human resources development and the efficient functioning of the labor market.
- 3.d. Determine the extent to which national labor laws apply and are enforced in the informal sector and their impact on the performance of businesses in that sector.
- 3.e. Determine the willingness of the GOE to reform those laws that serve as constraints.
- 3.f. Develop a set of policy and institutional recommendations to help assure that Ecuador's private sector is able to meet its current and projected labor force requirements.

Requirements. Advanced degree in Labor Economics. Excellent understanding of the dynamic nature of labor markets, market based manpower planning techniques, and the peculiarities of labor markets in developing countries. The Labor Economist should be familiar with labor laws and employment policies common to Latin American countries. Must have Spanish communication proficiency equivalent to FSI-2+ level.

4. Junior Labor Economist (local):

Will assist Senior Labor Economist to carry out all prescribed responsibilities and will serve as general facilitator for other members of assessment team.

Requirements. Advanced degree in Economics. Excellent understanding of the dynamic nature of labor markets, market based manpower planning techniques, and the peculiarities of the Ecuadorian labor market. The Junior Labor Economist should have a firm understanding of Ecuadorian labor laws and the general state of labor-management relations in the targeted sectors. Must have Spanish communication proficiency equivalent to FSI-4 level.

5. Industry Specialist (Apparel and Textile):

Responsible for identifying the labor force requirements of the apparel and textile industry, in terms of the quantity, quality and type of manpower needed for it to effectively meet the demands of the market, state of labor-management relations, and impact of workplace practices on firm performance. In determining the labor force requirements of the industry, the Specialist will assess not only the human resources constraints of the industry, but will analyze other possible factors constraining its further development.

Specific tasks include:

- 5.a. Analyze the current state of the apparel and textile industry and likely development path based on its resource endowments, profile of potential customers, local credit markets, government laws, regulations and policies affecting the apparel and textile industry, rates of investment in the sector, and quality and value of the product.
- 5.b. Identify the major factors constraining further development of the sector.
- 5.c. Define the generic production processes or tasks of the industry.
- 5.d. Develop a set of core competencies required to carry out the production processes or tasks; these competencies are likely to include technical, and management skills.
- 5.e. Translate the core competencies into education and training requirements.
- 5.f. With assistance from the vocational/management training specialist, determine whether their currently exists or is projected to be in the near term (3-5 years) an imbalance in technical and management skill demand and supply in the apparel and textile sector.

- 5.g. Measure the impact on firm performance of employers' workplace practices and the relationship between management and labor.
- 5.h. Develop a set of policy and institutional recommendations to remove the identified human resources constraints as well as the other significant constraints affecting the industry.

Requirements. College degree in business or economics. Comprehensive understanding of manpower requirements and other aspects of apparel and textile industry. Experience in Latin America is preferable. Must have Spanish communication proficiency equivalent to FSI-2+ level.

6. Industry Specialist (Finished Leather Goods):

Responsible for identifying the labor force requirements of the finished leather goods industry, in terms of the quantity, quality and type of manpower needed for it to effectively meet the demands of the market, state of labor-management relations, and impact of workplace practices on firm performance. In determining the labor force requirements of the industry, the Specialist will assess not only the human resources constraints of the industry, but will analyze other possible factors constraining its further development.

Specific tasks include:

- 6.a. Analyze the current state of the finished leather goods industry and likely development path based on its resource endowments, market opportunities, government laws, regulations, and policies affecting information service businesses, rates of investment in the sector, and quality and value of the product.
- 6.b. Identify the major factors constraining further development of the sector.
- 6.c. Define the generic production processes or tasks of the finished leather goods industry.
- 6.d. Develop a set of core competencies required to carry out the production processes or tasks; these competencies are likely to include technical and management skills.
- 6.e. Translate the core competencies into education and training requirements.

- 6.f. With assistance from the vocational/management training specialist, determine whether their currently exists or is projected to be in the near term (3-5 years) an imbalance in technical and management skill demand and supply in the finished leather goods sector.
- 6.g. Measure the impact on firm performance of employers' workplace practices and the relationship between management and labor.
- 6.h. Develop a set of policy and institutional recommendations to remove the identified human resources constraints as well as the other significant constraints affecting the industry.

Requirements. College degree in business or economics. Comprehensive understanding of manpower requirements and other aspects of leather industry. Experience in Latin America is preferable. Must have Spanish communication proficiency equivalent to FSI-2+ level.

7. Industry Specialist (Food Processing):

Responsible for identifying the labor force requirements of the food processing industry, in terms of the quantity, quality and type of manpower needed for it to effectively meet the demands of the market, state of labor-management relations, and impact of workplace practices on firm performance. In determining the labor force requirements of the industry, the Specialist will assess not only the human resources constraints of the industry, but will analyze other possible factors constraining its further development.

Specific tasks include:

- 7.a. Analyze the current state of the food processing industry and likely development path based on its resource endowments, market opportunities, government laws, regulations, and policies affecting information service businesses, rates of investment in the sector, and quality and value of the product.
- 7.b. Identify the major factors constraining further development of the sector.
- 7.c. Define the generic production processes or tasks of the food processing industry.
- 7.d. Develop a set of core competencies required to carry out the production processes or tasks; these competencies are likely to include technical and management skills.

- 7.e. Translate the core competencies into education and training requirements.
- 7.f. With assistance from the vocational/management training specialist, determine whether their currently exists or is projected to be in the near term (3-5 years) an imbalance in technical and management skill demand and supply in the food processing sector.
- 7.g. Measure the impact on firm performance of employers' workplace practices and the relationship between management and labor.
- 7.h. Develop a set of policy and institutional recommendations to remove the identified human resources constraints as well as the other significant constraints affecting the industry.

Requirements. College degree in business, economics, or agriculture. Comprehensive understanding of manpower requirements and other aspects of food processing industry. Experience in Latin America is preferable. Must have Spanish communication proficiency equivalent to FSI-2+ level.

8. Industry Specialist (Metal Fabrication):

Responsible for identifying the labor force requirements of the metal fabrication industry, in terms of the quantity, quality and type of manpower needed for it to effectively meet the demands of the market, state of labor-management relations, and impact of workplace practices on firm performance. In determining the labor force requirements of the industry, the Specialist will assess not only the human resources constraints of the industry, but will analyze other possible factors constraining its further development.

Specific tasks include:

- 8.a. Analyze the current state of the metal fabrication industry and likely development path based on its resource endowments, market opportunities, government laws, regulations, and policies affecting the metal fabrication industry, rates of investment in the sector, and quality and value of the product.
- 8.b. Identify the major factors constraining further development of the sector.
- 8.c. Define the generic production processes or tasks of the core industries (auto assembly) of the metal fabrication sector.

- 8.d. Develop a set of core competencies required to carry out the production processes or tasks; these competencies are likely to include technical and management skills.
- 8.e. Translate the core competencies into education and training requirements.
- 8.f. With assistance from the vocational/management training specialist, determine whether their currently exists or is projected to be in the near term (3-5 years) an imbalance in technical and management skill demand and supply in the metal fabrication sector.
- 8.g. Measure the impact on firm performance of employers' workplace practices and the relationship between management and labor.
- 8.h. Develop a set of policy and institutional recommendations to remove the identified human resources constraints.

Requirements. College degree in industrial engineering or business. Comprehensive understanding of skill requirements of major metal fabrication industries in Ecuador. Experience in Latin America is preferable. Must have Spanish communication proficiency equivalent to FSI-2+ level.

VII. Estimated Level of Effort for Specialists

The team will be assigned a 6 day work week.

<u>Position</u>	<u>Work Weeks</u>
Chief of Party	4
Senior Labor Economist	2
Junior Labor Economist	2
Training Specialist	3
Apparel/Textile/Leather Specialist	3
Food processing Specialist	3
Metal fabrication Specialist	3

Total Number of Work Days = 120

ARTICLE V - REPORTS

Oral Reports

The COP will provide weekly briefings to the USAID/Ecuador Education Officer, Economist, Private Sector Development Officer, and other interested individuals of the mission.

Prior to departure, team members will give oral reports to the Mission, their counterparts, and to appropriate representatives of the GOE, representatives of the four targeted sectors and broader Ecuadorian business community, and directors of technical and management training institutions.

The COP will give a final briefing on the overall results of the assessment to the Mission and to appropriate members of the Ecuadorian government and private sector.

Written Reports

Prior to the end of week one, the COP will submit to USAID/Ecuador a detailed outline of the work force assessment.

The COP will be responsible for preparing the final report and executive summary of the assessment. The report will be made available in Spanish as well as English. The final report will:

1. Identify the human resources constraints in the targeted sectors from effectively meeting domestic demand and from competing successfully in the global marketplace.
2. Define the core competencies required of workers in the four targeted sectors and the associated educational and training requirements.
3. Determine the current and projected (3-5 years) supply of individuals possessing the core competencies required of the targeted areas.
4. Determine the size of the gap between the demand and supply of core competencies in the targeted industries and explain its causes.
5. Review demographic and economic trends in Ecuador and the implications for the labor force, education and training institutions, and the competitiveness of Ecuadorian industries.
6. Identify the legal, regulatory, policy and institutional barriers which collectively may prevent the private sector from meeting its labor force requirements.
7. Discuss the relevant labor force studies, employment and training projects and programs of other donors working in the area of employment and training, and labor market information systems.

8. Determine the extent to which gender bias exists in training institutions, labor legislation, and the work place and its impact on women's employment, wages, and career opportunities.
9. Discuss how employers' workplace practices and management-labor relations in the four targeted industries impact firm performance.
10. Develop a set of recommendations to remove the identified human resources constraints affecting the private sector in general and the four targeted areas, in particular.

An executive summary of not more than 20 pages will summarize the principal findings and recommendations of the assessment. Appendices should contain the scope of work, a list of persons contacted, statistical tables and graphs, and relevant reference documents, as appropriate.

Twenty (20) copies of the final report and executive summary of the assessment will be submitted to LAC/DR/EHR within 30 days of completion of the draft report. Another thousand copies will be reproduced in Spanish for dissemination in Ecuador.

ARTICLE VI - TECHNICAL DIRECTION

Technical direction will be provided by the A.I.D. Project Officer in LAC/RSD/EHR, Ms. Marilyn Arnold.

ARTICLE VII - PERIOD OF PERFORMANCE

- A. The effective date of this Delivery Order is the date shown in Block 7 of the cover page and the estimated completion date is date shown in Block 8 of cover page.
- B. Subject to the ceiling price established in this Delivery Order and with prior written approval of the A.I.D. Project Officer (see Block 5 of the Delivery Order), the contractor is authorized to extend the estimated completion date, provided that such extension does not cause the elapsed time for completion of the work; including the furnishing of all deliverables to extend beyond thirty (30) calendar days from the original estimated completion date. The contractor shall attach a copy of the A.I.D. Project Officer's approval for any extension of the term of this Delivery Order to the final voucher submitted for payment.

Appendix 2
Summary of TOR/SOW

APPENDIX 2. SUMMARY OF TOR/SOW

Ecuador LFA TOR/SOW

- I. OBJECTIVE, PURPOSES, KEY QUESTIONS (P. 8 & 9)
- A. PURPOSE: Capacity of country to meet labor force requirements via assessment of macro/policy framework, institutional/program framework, and four-sector review
- B. OBJECTIVES:
1. Assess current and 3 year imbalances in technical and mgmt skill supply and demand (Kelley w/sector specialists inputs)
 2. Assess mgmt practices impact on labor productivity (Bolaños lead)
 3. Assess labor/tax policies effects on labor force and training (DeWees/Posso lead, Kelley training interpretation, SSS direct questions to companies)
 4. Assess labor-mgmt relationship and impacts on productivity (Bolaños lead)
 5. Assess institutions in non-formal technical and mgmt training (Kelley)
 6. Assess labor market database quality and extent of its utilization (DeWees/Posso)
 7. Assess gender bias in workplace (Kelley lead, SSS' inputs)
- C. KEY QUESTIONS:
1. Availability of qualified skilled personnel
 2. Human resources problems, esp. small enterprises
 3. Promotability of entry level employees
 4. Strength of linkages between business and training institutions
 5. Level/adequacy of employer investment in training
 6. Employer understanding of skills requirements w/i global competitiveness framework
 7. 5-year skilled personnel requirements vs. training outputs
 8. Labor/tax law constraints on hiring, promoting, firing.
 9. Wage effects on labor supply and demand
 10. Impacts of labor-mgmt relationship on firm performance
 11. Levels of worker participation and training opportunities in firms
 12. Women-specific:
 - Advancement opportunities for women vis-à-vis men
 - Effects of social/labor legislation
 - Occupational clustering, incidence and causes
 - Gender bias in training
- D. GENERAL RESPONSIBILITIES BREAKDOWN
- Statistics review: DeWees/Posso
 - Major Chambers opinions: Burke, DeWees/Posso
 - Institutions/Programs review: Kelley
 - Specific Chambers opinions: SSS

-Industries opinions: SSs
-WID considerations: DeWees/Posso on legislation, Kelley on training, SSs on industry-specific

E. LFA TEAM QUESTION:

1. Do the "Key Questions" respond adequately to the Purpose & Objectives of the TOR"

II. STUDY METHODOLOGY

A. TEAMS

1. Tony and Roberto form the "Macro" team
2. Michael, George and Martyn form the "Micro" team
3. Marcie is the "Training Institutions and Programs" team
4. Joe will interact with all three teams towards congruency and inter-locking of findings
5. Marcie will bridge the two teams for consistency of their data inter-alia and with her findings
6. Roberto will act as general facilitator for identification and contact of information sources

B. INFORMATION GATHERING

1. Determination of sectoral scopes
-Review CIU and determine 4-digit groups to be used for the four sectors. Approval of Guillermo required
2. Group by teams and:
 - Review of appointments already made and project further appointments to be made
 - Classify types of resources to be interviewed
 - Draft interview instrument for each class (note: We will not work from questionnaires, but we will have consistency in interviews). Interview instruments will be consistent with purpose/objectives and key questions (P. 8-10), SOW (P. 10-13) and individual team member responsibilities (P. 13-21).
 - Interchange interview instruments among three teams, review and meet in complete team for final alterations
3. Information interchange
 - Team members will type up interview notes and circulate. At day-end meetings findings' inconsistencies will be worked out

C. WORK PLANS

In relation to the "Tentative LFA Team Work Plan" handed out, individuals will project their own personal work plans.

D. HANODUTS: CIU, appointments schedules

Appendix 3
Methodology

APPENDIX 3. METHODOLOGY

Tentative LFA Team Work Plan

Oct. 18, Monday. Joe Burke prepares initial LFA Team work plan.

Oct. 19, Wednesday. a.m. Joe, Guillermo Jáuregui (Mission Economist), Roberto Posso (local economist) meet at mission to discuss initial work plan and making of first appointments for consultants. Afternoon, Roberto supervises making of initial appointments for following week.

Oct. 23, Sunday. Joe collects four in-coming consultants on 7:50 p.m. arrival at airport and transports them to Hotel Colón.

Oct. 24, Monday.

Entire team plus Guillermo meet at project office at Av. Suecia 277 y Av. Los Shireys, Edificio Suecia, 8º Piso Norte.

8:30-12:30.

- * Introductions
- * Review of TOR/SOWs with emphasis on purpose and objections of the assessments.
- * Establishment of "macro" and "micro" teams' intra- and inter-team responsibilities. The Training Specialist will act as a technical bridge between the two groups, providing a reality check of two sets of data inter-alia and with training institutions programs. Roberto will act as a general facilitator in matters requiring detailed knowledge of local institutions, foibles and personalities.
- * Review of Jamaica LFA
- * Review of documents available in project office and for reading in other offices.
- * Review of interview scheduling, interview instruments requirements, and continuity of recording of information by three sector experts

12:30-2:00. Lunch

2:00-open

- * Preparation of interview instruments
- * Reading of documents
- * Planning of Project's logistical strategy development

Oct. 25, Tuesday.

8:30. Meet at project office, pick up interview instruments, depart for first interviews (appointments made before consultants' arrival)

8:30-12. Secretary schedules appointments, makes plan reservations

5:30. Team meets at project office to discuss approach variations, interchange

information, collect next days interview schedule, etc.

Oct. 26, Wednesday.

8:30-5:30. Interviews, Quito

5:30. Team meets at project office for discussions and to collect rough draft of outline

Oct. 27, Thursday.

8:30-5:30. Interviews, Quito (except Michael Bolaños who goes by road to Ambato to interview Federación Nacional de Tenerías and leather apparel manufactures)

5:30. Team meets for discussions and to give feedback on outline.

Oct. 28, Friday.

8:30-5:30. Interviews

11:00. Joe submits detailed outline of assessment to mission economist and LFA liaison officer, Guillermo Jáuregui, and gives briefing on past and upcoming weeks' work. Other members of team and/or USAID/Q may be present.

6:00. Team members meet for a drink (optional)

Oct. 29, Saturday.

8:30-5:30. Project office: interchange findings, reproject interview and document needs for following week, first fleshing of each team member's outline. Writing will uniformly follow the style established in the Jamaica Labor Force Assessment. Give individual section outlines to Joe by end of day. Leave list of appointments to be made for Thursday and Friday of following week for secretary to make while we are in Guayaquil.

Oct. 30, Sunday.

Depart 10 a.m. for bar-b-que at Joe's weekend farm.

Oct. 31 and Nov. 1, Monday and Tuesday.

Depart on flights to Guayaquil or Manta (Martyn Walker for auto assembly). Rental vehicle will be sent Sunday to Guayaquil to provide some of the local transport, especially to specialists visiting factories outside Guayaquil. Hotel Continental for Monday night. Return to Quito Tuesday 5:30 p.m.

Nov 2, Wednesday.

Public holiday. Work at project office on amalgamating results to date and providing further form and focus to written work. Interchange results from interviews.

Nov. 3 and 4, Thursday and Friday.

8:30-5:30. Finish Quito Interviews

11:00 4th. Meeting at USAID for briefing and discussions.

5:30. Meeting at project office.

Nov. 5, Saturday.

Team works at project office: fine-tuning of substantive matters, rationalization and/or harmonization of incongruities, projection of final week's schedule.

Nov. 7 and 8, Monday and Tuesday.

Team members work at office on writing and on verification phone interviews, also making final personal interviews as needed. Members are encouraged to exchange drafts for editing. At day's end Tuesday members will Joe give drafts of their work to date.

Nov. 9, 10 and 11; Wednesday, Thursday and Friday.

Team members work on extracts for executive summary inclusions and for section on major findings, conclusions and recommendations. They will also finish charts, graphs and appendices.

During these days, Joe and Marcie Kelley will edit and discuss texts and extracts with each member. Guillermo will be consulted for his and other mission opinions. Team members will incorporate alterations resulting from editing and from USAID/Q observations.

Nov. 12, Saturday.

Team will meet to review entire draft document, including introduction, executive summary and final chapter of amalgamated findings, conclusions and recommendations.

Nov. 13, Sunday.

Departure of team members.

Nov. 15, Tuesday.

Joe will submit copy of draft to USAID/Q and copy by courier to AED & USAID/LAC.

Second Half November.

Joe and Guillermo will coordinate presentation of results locally.

Joe will incorporate final comments from USAID/Q, AED, and USAID/LAC into document.

AED and USAID/Q will coordinate the production and distribution of documents.

JFB 19/Oct/94

Appendix 4
Interviews—Team Leader

APPENDIX 4. INTERVIEWS - TEAM LEADER

**INTERVIEWS
by J. F. Burke**

Cámara de Comercio de Guayas - INDEPRO
- **Eco. Sonia Rivadineira, Capacitación**

Cámara de Comercio de Quito -
- **Ing. Andrés Pérez, Presidente**
- **Ing. Armando Tomaselli, Vice-Presidente**

Cámara de Industrias de Pichincha
- **Ing. Gustavo Pinto, Presidente**
- **Dr. Francisco Díaz, Vice-Presidente Jurídico**

CAPEIPI (Cámara de Pequeñas Industrias de Pichincha)
- **Ing. Manuel Nieto, Presidente**

CAPIYMIG (Cámara de Pequeñas y Medianas Industrias del Guayas)
- **Dr. Rafael Bejarano, Sub-Director Ejecutivo**

CONAM (Consejo Nacional de la Modernización)
- **Ing. Mauricio Pinto, Presidente**

FEDEXPOR (Federación de Exportadores del Ecuador)
- **Ing. Gustavo Cevallos, Director Técnico Nacional**

Fundación Ecuador
- **Ing. Pedro Aguayo, Director Ejecutivo**
- **Eco. Germán Cárdenas**

IDB (Inter-American Development Bank)
- **Ing. Jorge Torres-Zorrilla, Especialista Sectoral**

INCAE
- **Eco. Jorge Delsalto, Director Ejecutivo**

INSOTEC (Instituto de Estudios Socio-Económicos y Tecnológicos)
- **Fernando Fernández, Sub-Director Ejecutivo**
- **Ing. Carlos Palán, Director Centro de Información**

MICIP (Ministerio de Industrias, Comercio, Integarción y Pesca)
- **Eco. Raúl Sagasti, Subsecretario de Industrias**
- **Ing. Nelson Díaz, Director de Industrias**

Salesians (Colegio Técnico Domingo Comín)
- **Fr. Bolívar Jaramillo, Director**

- Br. Angel Robusti

SECAP (Servicio de Capacitación Profesional) en Guayaquil

- Ing. Víctor Narváez, Director de CERFIL
- Ing. Edgar Aráuz, Jefe de Metalmecánica

SECAP (Servicio de Capacitación Profesional) en Quito

- Ing. Mario Miranda, Director Ejecutivo
- Ing. Rodrigo Lucio-Paredes, PREDEFOR
- Eco. Jorge Vitieri

Swiss Contact

- Eco. Peter Lutz, Director Ejecutivo

USAID (United States Agency for International Development)

- Leopold Garza, Deputy Director
- Guillermo Jáuregui, Economist

U.S. Embassy

- James H. Benson, Political and Labor Officer

Appendix 5
Bibliography

APPENDIX 5. BIBLIOGRAPHY

BIBLIOGRAPHY

Ampuero, Luis; Burke, Joseph. "Comparative Advantages of Ecuadorian Industry: Recommendations for Implementation of the Non Traditional Industrial Export Project" DAI, Quito, 1991

AREQUETIPO PUBLICACIONES. "Directorio Agropecuario Andino" Quito, 1994.

BANCO CENTRAL DEL ECUADOR, Direccion Gneral de Estudios. "Informacion Estadística Mensual No. 1.710" Quito, Agosto 1994

BANCO CENTRAL DEL ECUADOR, Division Técnica. "Boletín Anuario No 12" Quito, 1989-1990

BANCO CENTRAL DEL ECUADOR, Direccion de estadística y analisis de coyuntura. "Circular Técnica No. 3" Quito, Octubre 18 de 1994

BANCO CENTRAL DELECUADOR., Direccion General de estudios, "Precios, Salarios y Empleo" Quito, Julio 1994

BID. "Cambios en el Banco" Quito, Diciembre de 1993

CAMARA DE INDUSTRIAS DE CUENCA. "Guia Industrial de Cuenca" Cuenca, Ecuador, 1993

CAMARA DE INDUSTRIAS DE PICHINCHA. Congreso Nacional de Industrias. "Memorias: Enero 12, 13, 14 de 1994" Quito

Camard Wayne. "Trade and Industry in Ecuador" Stanford University May 21, 1991

CAPEIPI. "Diagnostico de la Pequeña Industria" Quito 1993

CEBCA. "El sector nacional productor de bienes de capital catalogo No. 3" Quito, Agosto 1990

CEBCA. "La subcontratacion industrial en el Ecuador" Quito, 1992

CONAM. "Ecuador: Modernizando Todo" Quito, 1994

CONUEP. "Guia Académica de las Universidades y Escuelas Politecnicas" Quito 1990

CORPORACION FINANCIERA NACIONAL, "Sector Metalmeccánico: Gerencia de Planeacion" Quito, Julio 1990

Elliott, James. "Real Wages, Poverty and Economic Policy Changes in South America and Mexico in 1980: a Review of the Evidence" USAID, Washington DC, June 1993

Farrel, Gilda. "Seminario: Análisis de la Encuesta de Hogares y Diseño de Políticas de Empleo." Instituto Nacional de Empleo. Quito, Enero 1989

FEDEXPOR. "Afiliados a FEDEXPOR de los 100 mayores exportadores Ecuatorianos en 1992" Quito, 1992

FEDEXPOR. "Directorio de Exportadores Ecuatorianos 1993 - 1994"

FEDEXPOR. "Directorio de Exportadores del Ecuador 92 - 93"
Quito, 1992.

Fernandez, Fernando. "Condiciones de Entorno de las Pequeñas Empresas en el Ecuador" INSOTEC. Quito, 1990

Ferraro, Vos, et al. "Industrialización en América Latina y el Rol de la PYMI." INSOTEC. Quito, 1989

Fletcher, Lehman; Marquez Gustavo; Sarfaty, David. "Formulating a Strategy for Employment Generation in Ecuador" Development Alternatives, Washington, October 19, 1988

GENESYS. "Gender and Ecuador's New Export Sectors a Rapid Rural Appraisal Study" December 1992

Hachette, Dominique; Franklin, David. "Employment and Incomes in Ecuador: a Macroeconomic Context" USAID. Ecuador, May 1990

Hidalgo Lopez, Luis. "La Legislacion Informal en el Ecuador" Quito 1990

Hidalgo Flor, Roberto. "La informacion como instrumento de apoyo al desarrollo industrial" INSOTEC, Quito - 1991

INCAE. "Agencia de Reconversion Industrial: Hacia una Estrategia de Reconversion Industrial para el Sector de Textiles y Vestuario. Quito, Abril 1990

INEC. "Empleo, Desempleo y Subempleo en el Sector Urbano" Quito, Noviembre de 1990

INEC. "Indices de Empleo y Remuneraciones: Primer Trimestre" Quito 1994

INEM. "Encuesta permanente de Hogares: Empleo, Subempleo y Desempleo - 1993"

INEM. "Encuesta Permanente de Hogares: Empleo, Sub-empleo y Desempleo Nacional - 1992" Quito

INSOTEC. "Programa de Fomento a la Pequeña y Mediana Industria de América Latina" FOPIAL. Quito, Diciembre de 1988

INSOTEC. "Diagnostico de la pequeña y mediana industria en el Ecuador" Quito, Noviembre de 1993

Kurt Falmon Associates, Inc. "A Strategy For The Development Of The Ecuadorian Apparel Industry" September 1991.

Luna, Luis. "Para Diseñar un país Exportador" FEDEXPOR/Louis Berger Int'l. Quito, Julio 1994

Management Systems Internacional. "Evaluation of the policy dialogue support project" Ecuador, November 1993

Management Systems Internacional. "A Cross-Sectoral Evaluation Of Sustainability For USAID/ECUADOR" September 1990

Nathan Associates. "Ecuador: Investment Climate Comparison Study" Octubre 22 de 1993

Papke, Tonia. "Technical Assistance to the Small Enterprise Development Project in Ecuador" November 17, 1989

Pareja, Juan Ignacio. "Comentarios sobre la Legislación Laboral Ecuatoriana" INSOTEC. Quito, 1991

PROEXANT. "Memorias: Andina Trade '92 Convention on trade, investment and development" Quito, 1992

Reynolds, Clark W. "Obstacles to Competition and Entrepreneurship in Andean Countries: Implications for Regional Integration from the Ecuador Case" The Americas Program, Stanford University, 1990

Salgado, Gaston. CORDES. "El Ecuador del Mañana: Una ruta con Problemas" Quito

SECAP. "Necesidades de la capacitación profesional en el sector industrial" Quito 1993.

Secretaria General de Planificación. "Situación Coyuntural" No 39 Quito, Febrero 1994

Spurrier, Baquerizo W. "ANALISIS SEMANAL" (varios numeros) Guayaquil, 1994

U.S. Embassy Quito, Economic Section. "Analysis of the Ecuadorian Economy" Quito, July 1994

USAID/Ecuador. "Action Plan FYs 95 - 96" Quito, 1994

World Bank, Latin America and the Caribbean Regional Office. "Staff Appraisal Report: Ecuador" May 10, 1982

World Bank. "Implementing the World Bank's Strategy to Reduce Poverty" Washington. (sin fecha)

Appendix 6
Industry Training Poll

APPENDIX 6. INDUSTRY TRAINING POLL

PERCEPTIONS OF SECTOR MANAGEMENT CONCERNING TRAINING PROBLEMS

CONCEPTS CONCERNING TRAINING NEEDS (ALL SECTORS)	SECTOR RESPONSES		
	% Aff.	% Neg.	% Ind.
Can training institutions meet demand	29%	61%	10%
Do workers select their courses	46%	52%	2%
Do opportunities exist in the industry	73%	17%	10%
Do trained personnel databases exist	2%	98%	0%
Does the government invest in training	25%	60%	15%
Do serious skills imbalances exist	51%	32%	17%
Are skilled workers difficult to find	58%	40%	2%
Are the skills that you need available	33%	61%	6%
Do formal links exist with institutions	44%	54%	2%
Is training investment important	82%	16%	2%
Do you invest in training	69%	21%	10%
Are management relations good	84%	15%	11%
Are training institutions capable	26%	63%	11%
Do institutions have many disadvantages	71%	18%	11%

Appendix 7
Congreso Nacional de Industriales 1994: Comisión No. 3

COMISION No. 3

**EDUCACIÓN, CIENCIA, CAPACITACION CONTINUA
Y EMPLEO PRODUCTIVO (DESARROLLO DE
RECURSOS HUMANOS)**

Integrantes:

*Nicolás Pérez, José Antonio Lanusse, Walter Brito, Néstor Silvero Jiménez,
Alina Alíncastro, Manuel Salazar, Héctor Enríquez, Fernando Sánchez,
Christian Wahli, Francisco Yépez, Lupe Machado.*

INTRODUCCION

Al iniciar la discusión del tema encargado a nuestra comisión, llegamos a la conclusión de que no es factible tratar el tema sin analizar primero cuál es la estrategia que existe el país a nivel de educación. Esto nos lleva al punto de que a su vez ésta debe estar ligada a la visión estratégica a largo plazo del país. En este Congreso el Presidente de la República, su Vicepresidente, así como los expositores industriales mencionaron que es indispensable tener un acuerdo de modelo de la nación que queremos ser; no basado en intereses particulares sino en las necesidades, oportunidades, potencialidades, recursos y habilidades de nuestra sociedad.

Desafortunadamente ninguno de los grupos líderes de opinión ha presionado para que el proyecto del país para los próximos 30-50 años sea definido. Sugerimos que es indispensable que la Federación de Cámaras lidere esa convocatoria y reúna a las personas más idóneas para lograr la definición de esa visión e identidad lo más rápido posible.

El esfuerzo de mejora de calidad y competitividad en que todos estamos empeñados, y tomando en cuenta que lo que debemos hacer depende casi exclusivamente de la disponibilidad de recursos humanos, de todo nivel, tecnológicamente preparado, exige la definición de estrategias específicas en ese campo. No es desconocido que la industria tiene cada vez más dificultades para llenar sus vacantes con gente apropiadamente preparada. Declinaremos o mejoraremos según decline o mejore nuestro sistema de educación.

Nuestra competitividad está inexorablemente atada al desempeño del sistema educativo. No tiene sentido que sigamos invirtiendo ingentes sumas de dinero en reentrenar nuestra fuerza de trabajo (a todos los niveles) cuando podemos hacer las cosas bien desde el comienzo, enseñando a los niños de escuela.

Parece ser, sin embargo, que quienes predicamos a cada momento, realmente no lo demostramos con acciones, no asumimos el compromiso. Como anécdota es interesante o más bien triste señalar que el número de participantes del sector industrial en esta Comisión fue el más bajo, con respecto a las demás (apenas fuimos tres).

Sugerimos como propuesta concreta que se cree en la Federación de Cámaras una Vicepresidencia encargada de la educación, formación continua y tecnología. Esa actividad deberá ser permanente y proactiva.

Los miembros de la Comisión quedan a disposición para empezar el trabajo hasta que se decida el camino de acción a la propuesta. Se consideró indispensable para el próximo Congreso un aporte de avance de esta iniciativa y de las que se describen a continuación.

Se recomienda como principio general la desregulación en el sector educativo de la forma en que los sectores privados pueden realizar inversiones con el mismo, igual que en cualquier otra actividad productiva del país.

SISTEMA DE EDUCACION BASICA

Dado que la educación básica es la piedra angular del sistema educativo, sobre la cual se asienta el resto del proceso, el observar algunos de sus indicadores nos permite visualizar las profundas debilidades y carencias entre las que podemos citar:

1. Según datos de la UNESCO en 1987 Ecuador invirtió 80 dólares por alumno primario, Colombia 85, Perú 87, Venezuela 119 y Chile 160 dólares.
2. En el Ecuador de 1993 la inversión anual por alumno matriculado (pre-primaria, primaria y media) es de 20.500 sucres (11,14 dólares) equivalente a un cartón de 10 cajetillas de cigarrillos o para otros, menos de tres tragos de whisky.
3. Tres de cada diez alumnos repiten el primer grado.
4. La repetición genera un costo adicional calculado en 15.5 millones de dólares anuales (1987). -

Por lo anterior y en función del proceso de reforma y modernización del Estado creemos que el énfasis de las actividades de Ministerio de Educación debe orientarse a fortalecer el sistema de educación básica que hoy está sometido a una profunda reforma en base del Proyecto de Mejoramiento de la Calidad de Educación Básica PROMECEB y el Proyecto de Desarrollo, Eficiencia y Calidad de la Educación Básica EB/PRODEC, que cuentan con una financiación del BID y del Banco Mundial por un total de 168 millones de dólares.

Cabe destacar que las Cámaras de la Producción, de lo que se sabe, no tienen ni han tenido ninguna participación en el diseño e implementación de estos proyectos.

Lo anterior exige compromisos de varios sectores de la sociedad, es decir del sector público y del privado.

4.1. Compromisos del sector privado

Que la Federación de Cámaras a través de su Vicepresidencia de Educación participe en la elaboración y vigilancia del proyecto "Educación Siglo XXI".

Que vigile que los recursos del Estado asignados a la educación cumplan con el mandato constitucional.

Que vigile la correcta utilización de los fondos provenientes de la cooperación internacional.

4.2. Compromiso del sector estatal

Que cumpla con el mandato institucional en la asignación del 30% del presupuesto nacional para la educación, (hoy constituye el 18%).

Que de esa asignación global la mayor parte sea dedicada a la educación básica.

SISTEMA DUAL

Como se ha visto en las estadísticas anteriores, el sistema educativo en su globalidad, registra una serie de deficiencias; uno de los mayores problemas es la falta de oportunidad de los educados. Es así que el estudiante está casi obligado a continuar su educación en las escuelas superiores con la esperanza de encontrar mejores oportunidades de trabajo. Eso contribuye a la mistificación de la enseñanza superior y por ende a un desgaste enorme de recursos (las estadísticas muestran que el crecimiento del número de graduados no mantiene el mismo ritmo de la matrícula). Así en 1970 de cada 100 matriculados se graduaron el 6.6%; para 1987 lo hicieron un 4.4%.

En ese contexto, el sistema dual puede no solamente ofrecer una alternativa de educación para los jóvenes, sino más bien convertirse en una herramienta potente de capacitación de recursos humanos no sólo para el sector privado sino para el país en general.

La propuesta concreta de la comisión es la siguiente:

- El SECAP más los colegios técnicos tienen los recursos suficientes para apoyar el sistema dual de su componente académico.
- El sector privado tiene los recursos, el equipamiento (herramientas, máquinas, etc.) para participar activamente en el componente práctico del sistema propuesto.
- Uniendo esas dos fuerzas se puede rápidamente promover y establecer, a nivel nacional, un sistema académico-práctico, que a mediano plazo ofrecerá al país una mano de obra acorde a sus necesidades.

Lo arriba expuesto necesita sin embargo varios compromisos:

1. Compromiso del sector empresarial

- Que exista un compromiso con el sistema propuesto.
- Que se organice a través de la Federación de Cámaras la estructura para colaborar con la definición de los programas.
- Que colabore activamente en el Directorio de un SECAP reorganizando (SECAP más Colegios Técnicos).
- Que los empresarios se comprometan a formar los maestros de aprendizaje necesarios para el buen funcionamiento de la parte práctica del sistema dual.

2. Compromiso del sector industrial

- Que fomente la formación dual permitiendo que los gastos incurridos en aquello sea deducible en los impuestos.
- Que se reestructure el Ministerio de Educación a fin de oficializar, respaldar y vigilar el buen funcionamiento del sistema dual a nivel nacional.
- Que se reorganice la educación técnica, funcionando el SECAP con los Colegios Técnicos y permitiendo así el establecimiento de una infraestructura nacional, con el fin de respaldar el componente académico del sistema dual.

- Que se defina y aplique, en consenso con las Cámaras de la Producción, una verdadera ley de aprendices que reconozca oficialmente la formación dual.

LA EDUCACION SUPERIOR

La mal comprendida democratización de la enseñanza superior ligada a la mal entendida autonomía universitaria han llevado al sistema de educación superior al caos. A pesar de esa situación, es extraño constatar que el Estado, en los últimos años, invirtió más en ese sector, en desmedro de la educación básica.

La situación actual exige una profunda reestructuración del sistema. Una de las posibles alternativas es la especialización de las escuelas superiores evitando así la multiplicación de esfuerzos y, por tanto, el despilfarro de los pocos recursos disponibles.

Los planteamientos de la Comisión son los siguientes:

1. Compromiso del sector privado

- Participar activamente en la reorganización de la enseñanza superior.
- Colaborar a través de convenios de colaboración e investigación al mantenimiento cualitativo de la enseñanza superior.
- Establecer y promover la relación universidad-empresa.

2. Compromiso del sector público

- Comprometerse a la expedición e implementación de la nueva Ley de Educación Superior.
- Prohibir la formación de nuevos centros universitarios que dependan del presupuesto estatal.
- Promover y fomentar la especialización de los diversos centros universitarios.
- Coordinar carreras entre los centros universitarios.
- Asignar los subsidios estatales no a las entidades sino a los estudiantes (préstamos reembolsables).

- Que las inversiones que el sector privado realice en el sistema de educación superior (apoyo de tesis, convenios de investigación, etc) sean deducibles de los impuestos.

REENTRENAMIENTO Y FORMACION CONTINUA

Todas las acciones y propuestas anteriores producirán resultados a futuro, pero es indispensable tomar acciones inmediatas para lograr reconvertir los recursos humanos con los que actualmente contamos, de manera que se optimice su gestión con la mayor rapidez y con ello logremos poner en práctica los nuevos conceptos generales, administrativos, de producción (calidad total), y podamos acceder a los mercados internacionales con productos de calidad a precios competitivos.

Para esto es indispensable que:

- Se de la "conversión mental" de los niveles directivos de las empresas y que lideren con el ejemplo compromiso, consistencia y constancia, con metas a largo plazo.
- Se desarrolle un real ambiente de confianza y apertura entre los socios de todas las Cámaras de Industrias, para poder compartir información y experiencia de cómo resolver nuestros problemas. Somos competidores en el mercado pero socios en mejorar el estándar y calidad de vida de nuestro país.
- Se aproveche y potencialice a las instituciones de servicios de capacitación que actualmente existen y son adscritas a las Cámaras.
- Se rediseñe y establezca un sistema coordinado de búsqueda de información sobre oportunidades de especialización y aprovechamiento de las becas existentes (IECE).
- Se establezca un incentivo a las compañías que intervienen en entrenamiento y formación de sus recursos humanos.
- Se promuevan mecanismos para lograr el regreso de profesionales ecuatorianos altamente capacitados, que se encuentran trabajando en el exterior.

Appendix 8
Congreso Nacional de Industriales 1994: Comisión No. 4

COMISION No. 4**CALIDAD TOTAL:
COMPETITIVIDAD, PRODUCCION,
PRODUCTIVIDAD, TECNOLOGIA, NORMAS
TECNICAS Y OTROS FACTORES***Integrantes:*

*Roberto Castro, Jorge Elizagaray, José Luis Ortíz, Raúl Estrada, Juan Gándara,
Carlos Palán Tamayo, Joadín Dreves, Frank Tosi, Galo Montañó, Felipe Urresta,
Carlos Erazo, John Neustaetter, Fernando Miño, Jorge Gonzales, Eduardo Caicedo,
Guillermo Abad, Carlos Vaca, Alfonzo Abdo, Jaime Bergara, Manuel Salazar,
Rodrigo Lucio Paredes, Jorge Espinosa, Oswaldo Rojas.*

CONSIDERANDO:

Que la industria nacional se encuentra enfrentada a grandes y nuevos desafíos motivados por la apertura de la zona de libre comercio andino y la globalización de la economía mundial,

Que estas circunstancias colocan a la industria nacional en eminente peligro de desaparición,

Que es indispensable que la industria nacional se transforme en competitiva en el ámbito internacional y que para este fin se requiere adoptar una nueva filosofía de administración de calidad total

SE RECOMIENDA:

1. Que el Gobierno Nacional adopte la cultura de la calidad total como una estrategia nacional.
2. Que la función del Estado debe ser subsidiaria, es decir de facilitador de las actividades del sector privado mediante el aporte del marco institucional, jurídico y de servicio de infraestructura que sean necesarios en función de la dinámica de los mercados y del cambio tecnológico.
3. Que la actividad privada adopte la calidad total como una estrategia de supervivencia a largo plazo para lograr una competitividad internacional.
4. Que se requiere de una estrategia industrial de largo plazo para implantar adecuadamente la cultura de la calidad total y que esa estrategia debe ser el resultado de la concertación entre el sector público y privado.
5. Que la estrategia debe basarse en un desarrollo tecnológico, vigoroso e innovativo, en la optimización de los recursos naturales y en la visión de apertura internacional mediante el fomento de las exportaciones.
6. Que se involucre en forma comprometida la alta gerencia del sector empresarial al que debe asumir un liderazgo en este proceso y que a su vez debe incorporar a los demás actores del sistema productivo.
7. Que el sector empresarial logre una concertación armoniosa con el sector laboral, en función del mejoramiento continuo de la productividad y calidad, en el marco de la competitividad.

Appendix 9
Congreso Nacional de Industriales 1994: Comisión No. 9

COMISION No. 9

**ENTORNO JURIDICO CONSTITUCIONAL,
LABORAL Y SALARIAL**

Integrantes:

*Wellington Baquero, Jaime Jarrín Nieto, Rafael Gómez Ordeñana,
Carlos Fernando Vaca, Jaime H. Ardila, Agustín Vaca Ruíz, Oswaldo Cevallos,
Miguel Hernández, Pablo Maldonado S., María Herrera.*

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El desarrollo de la industria de un país tiene directa relación con el marco jurídico en el que se desarrolla.

En el Ecuador a pesar de que en determinadas épocas hubieron normas legales protectivas para la actividad industrial, puede afirmarse que en la actualidad nuestra industria compete en los mercados internacionales, sin ninguna protección estatal y sin privilegios de naturaleza alguna.

Por el contrario puede afirmarse, que las actuales normas de carácter laboral y salarial, constituyen una evidente traba para el desarrollo industrial en cuanto constituyen normas excesivas y absurdamente protectoras para los trabajadores, con un grado altísimo de inflexibilidad.

Así mismo, las normas de carácter tributario en el país se han caracterizado por sus permanentes cambios. Esto ha contribuido a crear un marco de inseguridad jurídica que afecta a la inversión y ahuyenta a los inversionistas nacionales y extranjeros.

La industria constituye el motor que genera la producción de riqueza y empleo. De allí que el Estado tiene la obligación primordial de permitirle, con libertad, cumplir con sus propósitos, sin sobreprotegerla pero, al mismo tiempo, sin afectarla con una estructura jurídica que impide su normal desarrollo.

En el Ecuador es indispensable la desregulación y la eliminación de normas legales que traban el funcionamiento de la industria y de la libre empresa. No actuar eliminando esas trabas es afectar el bienestar de los ecuatorianos, impedir la creación de nuevas fuentes de trabajo, el mejoramiento de las existentes y la generación permanente de riqueza.

La modernización del Estado debe iniciarse por la renovación de la actitud gubernamental en sus relaciones con la industria. El Estado tiene que dejar de considerar a la industria y a la empresa privada en general como una fuente inagotable de ingresos para el fisco, mediante la creación de impuestos y contribuciones de todo género que le restan motivación y competitividad en el concierto internacional.

A pesar de que la Ley Reformatoria al Código de Trabajo expedida en noviembre de 1991, contribuyó sustancialmente a disminuir la innecesaria conflictividad laboral, quedan aún importantes reformas que deben introducirse al Código de Trabajo y además, hace falta una actitud positiva de las instancias

administrativas en materia laboral para impedir que se eluda el cumplimiento de las reformas introducidas, a través de actuaciones timoratas o dubitativas de las autoridades y de procedimientos administrativos por demás oscuros..

Es impostergable una reforma que asegure que el manejo de la fijación de sueldos y salarios se realice en base a procedimientos exclusivamente técnicos, en sus diferentes mecanismos y se evite que el Gobierno imponga siempre su criterio, mirando fundamentalmente el ahorro fiscal y sin analizar las implicaciones económicas y jurídicas para los demás sectores a los que se sacrifican cada seis meses.

Resulta inconcebible que la seguridad social en el Ecuador aún no defina una alternativa de solución con la participación de los tres sectores que, en forma tripartita, tienen responsabilidad en el problema, mientras la mayoría de países latinoamericanos ha dado ya inicio a importantes reformas estructurales para dar pasos firmes hacia la desmonopolización y consiguiente competencia, del sistema de seguridad social. No es posible que la industria representante del más elevado porcentaje de empleadores que contribuyen al sostenimiento del Instituto de Seguridad Social, no tenga una representación permanente en el Consejo Superior del I.E.S.S., en él sectores importantes pero que carecen de la misma importancia y representatividad.

Los industriales del país tenemos que iniciar una lucha frontal destinada a obtener las reformas legales que permitan que la seguridad social pueda ser también proporcionada por el sector privado. Así la seguridad social será eficiente para todos y el I.E.S.S., necesariamente tendrá que desburocratizarse, despolitizarse, tecnificarse y, principalmente, moralizarse. El Instituto, de esta manera, podrá ser rescatado de los activistas políticos y dirigentes sindicales que, desde hace tanto tiempo, y con mucha fuerza han dominado su estructura y lo han conducido a su actual situación de ineficiencia, insolvencia y práctica paralización de servicios, en la que lamentablemente se encuentra.

Para esto último, es necesario impulsar una reforma institucional que desmonopolice la seguridad social y una forma legal que consagre la integración del Consejo Superior del I.E.S.S., en forma auténticamente tripartita y paritaria. Los representantes del Gobierno deben ser los ministros que tienen estrecha relación con el tema. Los empleadores deberán estar representados por el sector industrial, generador de la mayor cantidad de fuentes de trabajo; y, los trabajadores deberán contar con auténticos y legítimos mandatarios.

En materia laboral, debemos propugnar una reforma profunda del Código de Trabajo y, si es del caso, la promulgación de un nuevo Código Laboral. Es hora de

revisar todo el marco jurídico en esta materia esencial para el desarrollo industrial. Sustituir la caduca concepción de que las relaciones obrero-patronales obedecen a una confrontación de clases. Lo moderno, lo real y sustancial es que dicha relación obedece a la colaboración y complemento de los dos más importantes elementos del proceso generador de riqueza del país: el capital y el trabajo.

La normatividad laboral tiene que constituir un instrumento que permita eliminar el absurdo portecionismo paternalista previsto en el actual Código del Trabajo y propender a la liberabilidad y flexibilidad de la contratación laboral, junto a la capacitación, profesionalismo y competitividad de los empleadores y de los trabajadores, dentro de un marco de mutuo respeto y solidaridad.

Hay que introducir de manera inmediata, determinadas reformas al Código de Trabajo, entre las que se pueden destacar: la ampliación de la cláusula del período de prueba; la eliminación de los períodos máximos fijados para los contratos temporales, ocasionales y eventuales; la absurda estabilidad establecida para los contratos de temporada, la limitación a dos años establecida para los contratos a plazo fijo; la regulación de desahucio, de manera que se aclare que éste puede ser ejercido como un legítimo derecho tanto del empleador como del trabajador.

La regulación del paro nacional es un imperativo; debe limitarse el pago a los trabajadores en huelga y debe prohibirse la toma de locales de la empresa. Hay que eliminar la jubilación patronal y la responsabilidad solidaria de los representantes de la empresa empleadora. Es indispensable la regulación del pago por hora trabajada; y hay que propender, como concepto y buscando un consenso entre las partes hacia la unificación del sistema de remuneraciones.

Por otra parte, es impostergable reformar la norma constitucional que ha dado origen a un sindicalismo público, voraz e insaciable, causa -conjuntamente con la politización de las instituciones- para la pésima calidad de los servicios públicos, indispensables para el desarrollo industrial ágil y moderno. Es público y notorio que los ecuatorianos en general somos perjudicados a diario, rutinariamente, por la imperfecta prestación de los servicios públicos que recibimos de manos del Estado.

En otro aspecto, la responsabilidad por los servicios públicos y por el actuar de los funcionarios y empleados estatales debe ser más claramente definida, a fin de que los particulares recibamos las indemnizaciones que nos corresponden por la comisión de actos o las comisiones de los funcionarios encargados de la prestación de servicios públicos.

(Artículo 20 de la Constitución. Estudio Anexo).

Todos los trabajadores del sector público tienen que regir su relación con el Estado a través de la Ley de Servicio Civil y Carrera Administrativa. De esta manera, se impedirá la sindicalización de los trabajadores estatales que tanto ha costado y cuesta al fisco y a todos los ecuatorianos. El costo de las llamadas "conquistas" laborales de los trabajadores públicos es incalculable. La sindicalización en el sector público de la economía, es contraria a un régimen de méritos y a la auténtica libertad de contratación con terceros. La industria, como receptora de los servicios públicos, inevitablemente usuaria de ellos, invariable generadora de impuestos y creadora de riqueza para el país demanda del Estado, la correspondiente reforma del Artículo 125 de la Constitución Política, disposición que ha dado origen a la **sindicalización dentro del sector público, con las nefastas consecuencias que todos conocemos y padecemos.**

Consecuentes con el bien entendido concepto de modernización del Estado, es indispensable romper impostergablemente con la centralización en sus múltiples expresiones, dando cumplimiento inmediato a los principios incorporados en la reciente Ley de Modernización del Estado.

Con el mismo carácter impostergable y urgente, es imprescindible dotar a las diversas regiones del Ecuador de auténtica autonomía administrativa y económica; pero no de una autonomía puramente lírica, sino operativa, práctica, objetiva, otorgando a las provincias lo que legítimamente les corresponde, esto es una total capacidad administrativa y de disposición sobre los recursos que ellas producen, de tal manera que desaparezca la exasperante dependencia de un funcionario gubernamental para el desarrollo oportuno, ágil y moderno de las distintas regiones de la patria. Las provincias tienen que estar plenamente facultadas para administrar y disponer de la riqueza que producen y canalizarla hacia las áreas que ellas consideren necesarias, y que nadie mejor que sus propios dirigentes conocen.

Concordante con todo lo expuesto y con la modernización del Estado y de sus instituciones, se hace inevitable también la modernización de la normatividad legal ecuatorina, de manera tal que ésta, en lugar de constituir una traba para el desenvolvimiento empresarial, se convierta en instrumento que de paso a la iniciativa privada de manera abierta; que agilite y promueva la reconversión industrial; la generación oportuna de riqueza y de servicios; la creación suficiente de plazas de trabajo con empleados y obreros debidamente capacitados; y de paso a la competencia industrial a nivel internacional e interna. Todo ello redundará en beneficio exclusivo de quienes habitamos en el Ecuador, de sus instituciones y del Estado ecuatoriano.