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HUALLAGA VALLEY

POPULATION, GROWTH, DISTRIBUTION,
LABOR FORCE, MIGRATION AND SOCIAL SERVICES

1991

CUANTO S.A.
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**POPULATION, DISTRIBUTION, LABOR FORCE, MIGRATION AND SOCIAL
SERVICES IN THE HUALLAGA VALLEY**

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GLOSSARY

AMIDEP	ASOCIACION MULTIDISCIPLINARIA DE ESTUDIOS DE POBLACION
CNP	CONSEJO NACIONAL DE POBLACION
CUANTO	EMPRESA CONSULTORA CUANTO S.A.
ECASA	EMPRESA COMERCIALIZADORA DE ALIMENTOS S.A.
ENACO	EMPRESA NACIONAL COMERCIALIZADORA DE LA COCA
FIDE	COLEGIO DE PROPAGACION CATOLICA
INEI	INSTITUTO NACIONAL DE ESTADISTICA E INFORMATICA
INFOR	INSTITUTO NACIONAL FORESTAL Y FAUNA
INGEMMET	INSTITUTO DE GEOLOGIA, MINERIA Y METALURGIA
INP	INSTITUTO NACIONAL DE PLANIFICACION
HV	HUALLAGA VALLEY
LHV	LOWER HUALLAGA VALLEY
MHV	MEDIUM HUALLAGA VALLEY
m.a.s.l.	METERS ABOVE SEA LEVEL
NNUU	UNITED NATIONS
ONGS	NON GOVERNMENTAL ORGANIZATIONS
PEA	ECONOMICALLY ACTIVE POPULATION
PEAH	SPECIAL PROJECT FOR ALTO HUALLAGA
S.S.	SOCIAL SECURITY
T.E.	EMIGRATION RATE
T.I.	IMMIGRATION RATE
UNFDAC	UNITED NATIONS SPECIAL PROJECTS FUND FOR THE CONTROL OF DRUG ABUSE

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POPULATION, GROWTH, DISTRIBUTION, LABOR FORCE
MIGRATION AND SOCIAL SERVICE
ON THE HUALLAGA VALLEY

EXECUTIVE SUMMARY

GENERAL INFORMATION

The **Huallaga Valley** in Peru is made up of seven provinces: Bellavista, Mariscal Cáceres, Huallaga, Picota, Tocache, Leoncio Prado and Padre Abad, which contain forty districts. These provinces are located in three regions: San Martín (due to pressure from its inhabitants is in the process of establishing regional status), Andrés Bello and Ucayali. This report comments on characteristics of the total population of the seven provinces, as well as of the larger cities, according to the national census and 1991 estimates. In particular, the total labor force and that of economically active informal farmers (involved in the cultivation of coca) is calculated.

The Huallaga valley covers an area of 46,743 km², equivalent to 3.6% of the national territory. The population density is 7 inhabitants per km². The valley's geographic profile presents three levels: Alto Huallaga (800 or more meters above sea level); Huallaga Medio (400 to 800 m.a.s.l.); and Bajo Huallaga (less than 400 m.a.s.l.).

The Valley, as the rest of the south east part of the Andes between 500 and 1,500 m.a.s.l., has favorable soil and climate conditions to the cultivation of crops which contain "sicoactive" alkaloid, like coca. One of the natural advantages of coca, as apposed to other crops, is that it can be harvested at any time during the year. Further, two months after harvesting, coca can be planted again. Part of the coca is destined for the production of cocaine and in this sense becomes a scourge in the lives of Huallaga residents despite providing for their subsistence. Another small part of the coca produce meets a demand among the Andean Population. "Chaccheo de la coca" or coca chewing is a traditional element of Andean life. Independently, there exists a coca demand for chemical and medicinal purposes through the pharmaceutical industry; legal marketing is in charge of ENACO.

Huallaga Central refers to the provinces of Bellavista, Huallaga and a few districts in Mariscal Cáceres, in addition to the provinces of Lamas and San Martín in the Department of San Martín. Alto Huallaga comprises the provinces of Leoncio Prado, Tocache and part of Mariscal Cáceres.

The Valley's geographic, ecological and sociocultural characteristics represent a vast and unexpected potential for the development of agricultural, agroindustrial, artesanal and touristic industries, among others.

The Huallaga River is navigable by rafts and canoes with outboard motors from Tingo María to the Aguirre Rapids (el Pongo de Aguirre). From there until the mouth of the river small capacity steam boats are widely used.

Principal ports are: Tingo María, Aucayacu, Tocache, Nuevo Progreso, Juanjui, Tingo de Saposoa and Bellavista.

ORIGINS OF THE HUALLAGA VALLEY POPULATION

The origins of the Huallaga Valley Population can be traced far back in time. In Huanuco, the Kotosh Ruins indicate the area was populated by man 3,800 years ago. The first settlers (Saposoa) of the valley were descendents of the "Iarnistas" Indians; these in turn were descendents of the rebellions chanca tribes who caused serious difficulties to expansion the Inca empire until defeated by Inca Wiracocha, when they had to flee across the Mayo River to the Huallaga valley.

Since colonial times and until 1930, new settlements in the Huallaga valley grew rapidly due to the demand of rubber, influenced by the development of transport systems and industry. The villages born in the "rubber era", originally were "caucheros" (rubber labor) encampments along the Huallaga River banks. The labor of these "caucheros" consisted mainly in curing and storing the raw rubber, sending it later up the river to Tingo María. That was how the districts of Saposoa, Juanjui and Aucayacu evolved. The demand for rubber diminished in 1920, but much of the population remained in the Huallaga Valley to subsistence farming to make their living.

The population is spread through small towns and villages close to the rivers and bridle-roads. Originally agriculture was undertaken in the fertile soil, but sooner, the farmer began indiscriminately to fell trees, cutting down wooded areas without any plan for soil conservation.

It is estimated that in 1930, approximately 18,000 people lived in the valley including both nuclear family units and single young migrants who had come to work as "shiringueros" or collectors of raw rubber. Most of these single young migrants later brought their families to the valley. In 1930, the national government began to intervene in the Huallaga valley zone, initiating agricultural colonization programs. As that time, the cultivation of coca still was a minor activity, as far as coca was mostly used for its traditional consumption in the high lands.

POPULATION 1940-1981

In 1940, when the first census providing reliable data was undertaken, the valley's population had reached 30,500, representing 0.4% of the country's total population.

The first population explosion happened between 1940 and 1961. The valley experienced an extraordinary change with the population growing at an average annual rate of 5.2%; only Metropolitan Lima grew at a similar rate (5.2%) in the same period.

The valley's livelihood was closely linked to the opening of the Central Highway between Lima-Huanuco-Tingo Maria and Pucallpa, that increased the communications with Lima and the entire coast. The Central Highway spurred migration to the valley and the settlement in the banks of the Huallaga river. Isolated rural settlements also developed further along the river. Tea, coffee, cacao, and tobacco began to be cultivated, resulting in the expansion of haciendas and villages.

The 1972 census reported a population of 146,480 in the valley, which represented 1.1% of the national population. While the national population growth rate between 1961/72 was 2.9% that of the Huallaga valley was 4.7%. This was mostly due to immigration.

According to the 1981 census, the population of the valley had grown to 200,000 with a growth rate of 3.5% since 1972. The province of Leoncio Prado continued to be the most populated, with 80,000 inhabitants with a 4.2% rate. Less populated provinces were: Padre Abad (11,503) and Huallaga (15,361), this province endures this time a critical period; with an annual growth of only 1% due to the emigration to other areas.

During the 1970's and 1980's the cultivation of coca expanded, almost exclusively for the manufacture of cocaine paste. This phenomenon brought new farmers to labor coca plantations because of its extremely high profitability.

During the 1980's terrorist groups expanded their activities throughout the entire country, and in this process, formed their basis in the valley.

1990 POPULATION ESTIMATES

The INEI official estimate of the Huallaga valley population in 1990 was 288,093. INEI did not publish district-level information until September 1991. However, taking into account revisions undertaken by INEI in December 1990, the National Population Council estimates the valley's population to be 282,952.

CUANTO estimates the 1991 population to be 320,600, approximately 1.5% of the national population (22,006,000). The annual growth rate of the population in the Huallaga valley during the last decade was 4.8%. That of Peru is 2.2%.

In the last ten years the valley has been greatly influenced by different factors. The most significant result of these influences has been an increase in migratory flux, particularly of farmers. Many companies and national and international organizations have

carried out projects promoting the zone's growth. Among these are:

- Agricultural assistance for crop substitution, developed by UNFDAC, the United Nations Special Projects Fund for the control of Drug Abuse.
- Special projects for the development of the jungle in general.
- Non-governmental organizations (ONGS) and foundations dedicated to the preservation of the environment.
- Three terrestrial satellite communication stations, installed in 1983, located in Juanjui, Saposoa and Tocache.
- An agroindustrial plant, constructed near the Saposoa-Piscoyacu Highway.
- Petroleum-exploration projects.
- Installation of a Rural Mobil Patrol Unit.
- The Canal of the River Sisa in San Jose de Sisa, which recently entered into use.

URBAN AND RURAL POPULATION

The Huallaga valley has not experienced the rural-urban migration to the extent that the rest of Peru has. In 1940, 62% of its population resided in rural areas. It is estimated that by 1991 that figure dropped to 49%.

A population of more than 2,000 inhabitants is considered urban. In 1940, there only existed two small cities with populations of more than 2,000 in the valley. In 1961 there were five. According to the 1972 census the valley contained seven "medium" sized cities (between 2,000 and 9,999 inhabitants), and Tingo Maria's population surpassed 13,000.

In 1991 it is estimated that four large cities are located on the valley: Tingo Maria (46,800), Tocache (13,900), Aucayacu (12,800) and Juanjui (12,200), in addition to seven medium-sized cities. These cities represent three quarters of the urban population and 38% of the total population of the valley.

ECONOMICALLY ACTIVE POPULATION

In 1981, slightly more than a third (33.7%) of the total population of the Valley were economically active (PEA). By gender, 65% of men worked and only 15% of women did. As in the rest of Peru, children aged 6-14 years were economically active. In 1981, of all the valley, slightly more than 60% of the PEA was involved in agriculture, forestry, hunting and fishing; 14% worked in community services; 9% in commerce; 7.4% worked in manufacturing and construction, and 9% worked in transportation, communications, storage and other non-specified activities.

MIGRANT POPULATION

Detailed information is available for migrants in the Huallaga Valley for the years 1961-1972 and 1981. A study conducted by AMIDEP and the Universidad del Pacifico provides the rates of immigration, emigration and the net rate of migration for the provinces of the Huallaga Valley, using data on place of birth. The provinces which had positive and high net rates of migration in all years for which data is available are Leoncio Prado, Padre Abad, Mariscal Cáceres and Tocache. By 1981, all provinces had positive rates of migration, indicating tacitly that the popularity of the Huallaga Valley as a site for migration was increasing.

The Instituto Nacional de Estadística e Información (INEI) conducted a study of inter-provincial migration between the years 1976 and 1981, considering as migration the change of habitual residence from one province to another. Using this concept of migration, the average annual rates of migration by sex, according to province and age group brings to light interesting conclusions. Males are more likely to immigrate (120 men for every 100 women), and the highest rates of immigration are for those between 15 and 34 years of age. Further, the relatively high rate of immigrants under five years of age indicates that young migrants after have families with infants and young children which are brought along. Finally, it is interesting to note that there is a negative net rate of migration of those of 55 years of age and over, indicating that the elderly may be leaving in greater numbers and returning to their province of origin.

SOCIAL CONDITIONS

In 1981, the provinces of Bellavista, Huallaga, Tocache and Mariscal Cáceres were among the 100 poorest in the nation. It is highly likely that over the past 10 years indicators of average living standards for the population of the valley as a whole would show some improvement. However, it is also likely that, particularly in the rural areas of the valley, poor distribution of income persists, exacerbated by the acceleration of coca production in the valley and the inequalities in the distribution of agricultural income which this activity fosters.

Many inhabitants of the region feel that the government should develop a more effective strategy for improving the rural economy in Peru, which would require a sustained process of development and improvement in standards of living of the campesinos who are today coca producers.

1991 DEMOGRAPHIC SURVEY

Between August 13 and September 6, 1991, Cuanto conducted a demographic survey in the urban and peri-urban areas of the principle cities of the Huallaga valley.

The results show that the population of the valley is relatively young, infants under 1 year of age represent 2.6% of the population; children between the ages of 1 and 4 represent 8.2% of the total, while those between 5 and 14 years old represent 25.5%. Those under age 14 represent more than a third of the total population (36.3%). The work force (people between the ages of 15 and 64) are concentrated more heavily in the cities (61.2%). Those over 64 represent only 2.5% of the total population.

Of those over 5 years of age, 39 out of 100 regularly attend school. By city, this rate varies from 27% (Juanjui) to 45% (Tingo Maria).

The education level of residents of the Valley's cities is above the national average. A high percentage of the population (46%) has completed at least some level of elementary school and the illiteracy rate is one of the lowest in the country (5%). The national illiteracy rate is 11%, in Lima, it is 2% and similar rates are observed in the cities of Uchiza (2%), Tingo María (3.2%), Aucayacu (3.1%) and Juanjui (3%).

In cities such as Tingo María, Dámaso Beraún and San Alejandro, at least one migrant was found living in each household interviewed indicative of a very intense migratory flow to the areas. In total, for all the cities where interviews took place 90% of households had at least the migrant in the household.

One important indicator of the population effects of migration in the valley is brought to light by classifying the entire population into "native" and "migrant" categories. In total, the population of the valley's cities is composed of 60% "natives" and 40% migrants. The major centers of migration are: Uchiza (7% of 10 inhabitants are immigrants, 55% of whom arrived between 1986 and 1991), Aucayacu (where 53% of its inhabitants are migrants; however the majority arrived more than five years ago) and Tocache (47% are migrants, and close to 40% of them are recently arrived).

The percentage of migrants in Bellavista - San Pablo is about 25%, which is explained by the fact that most of the arriving migrants settle in rural areas. A further note is the relatively large percentage of migrants that arrived during the past year, to the cities of Aucayacu (11%), Tocache (16%), Saposoa y Picota (19%), Uchiza (22%) and Bellavista - San Pablo (24%). This information about migration to urban areas makes valid the supposition that also exists an important trend of migration toward the rural area.

In reference to the causes for the migration trend toward the cities, the fact is that the importance of those who arrived looking for jobs and land is similar to that of people who immigrated by family reasons.

In order to comment the migrants origin, the places of birth are used; the majority of immigrants have come from provinces of the jungle (64%). However in Uchiza, a large proportion have come from the highlands (43%) and in Tocache, from the coast (39%). Examining migration by age group one of each three migrants are under 15 years of age,

and the largest proportion of migrants is between the ages of 15 and 31 (53%). In Aucayacu, Saposoa and Picota, the relative higher number of young migrants (43%) can be explained by the immigration of entire families; it also indicates some trend of migrating children.

The economically active population (PEA) in the cities of the Huallaga Valley (HV) represents approximately 41% of the total population. This is explained by the existence of many family businesses, specially in small commercial retailing and services (bars and restaurants). The PEA is primarily involved in the service sector (40.4%), which includes public administration, education (private), restaurants and bars, among others.

Public utilities services are not yet available to the cities of the valley; 32.8% of homes are served by public water pipes, while 77% have electrical connections. In the smaller cities, even fewer households are served. The widespread lack of such basic utilities indicates that the health and sanitarians conditions of the valley are generally most inadequate.

1991 POPULATION ESTIMATES

Taking different administrative records as reliable sources of statistical data, CUANTO estimates that the population of the Huallaga Valley is 320,000. Those sources are: the School Registration Records (from the Ministry of Education); Records of less than one year old children and real number of those vaccinated (Ministry of Health). Municipal records of births and defuncions were not used because too many omissions (around 40%) make them unreliable.

To estimate the resident population involved in informal agricultural (illegal coca) it is considered that the farmers working illegally are those that have not Social Security. The accepted hypothesis is that if 80% of urban population have not Social Security, then a larger percentage (90%) of rural population have not Social Security.

In the Huallaga valley, 40.6% (66,107 persons) of the urban population and 41.6% (65,365) of the rural area are PEA (economically active population). This percentage, slightly larger for the rural area, was estimated taken as reference the 1981 already mentioned Census. The survey of the Huallaga Valley population confirms that only 20% of the rural PEA have Social Security, and near 80% have not; this larger proportion of people, not having a legal status represents a potential population to be involved in illegal (coca) agriculture. In absolute numbers, estimated on the basis of the previous reasoning, more than 71,000 persons of the agricultural PEA are committed to the illegal agriculture (of coca).

With the CUANTO estimated about PEA involved in informal agriculture, and using the studies of Figueroa, A. and Matuk, F. which affirms the hypothesis that "the coca farming requires 125 man-days per hectare", it is possible to make a probable estimate of

the extension of coca plantations in the Huallaga valley between 71000 and 113 hectares, depending of two alternatives; the "A" alternative considers assumes that 80% of the farmers working time is dedicated to informal labor (coca). The other 20% would be involved in formal activities such as the farming of edibles for home consumption, and also to justify, in only in appearance, that they are working in legal agriculture. The "B" alternative assumes that the farmers dedicate only 50% of their laboring days to informal agriculture.

The hypothesis of 125 wages per year is also mentioned in a study on Production Costs made in the Special Project for "Alto Huallaga" (PEAH).

As an extreme point of comparison, it could be assumed that the farmer could commit all his time exclusively to the farm plantations (not a probable case); then, the estimated coca plantations area could signify 142,000 hectares.

A study of Jim Laitty (following Figueroa and Matak) considers close to 80,000 hectares of coca plantations in the Huallaga Valley for 1988.

DISTRICTS OF CHOLON AND MONZON

As requested, some characteristics of the districts of Cholón (La Morada) and Monzón (also the Upper Huallaga Valley) are presented:

Geographically, the Selva part of these two districts are part of the Huallaga valley. The district of Cholon belongs to the Marañón Province, department of Huanuco, in the Chavin Region. In 1991, its estimated population is 5,100 and have a PEA of 1,800 persons. The districts of Monzon, situated in the province of Huanalies, belongs to the Andres Avelino Caceres Region, since June 30, 1991; its estimated population is 12,300 and its PEA could be 4,800.

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POPULATION, DISTRIBUTION, LABOR FORCE, MIGRATION AND SOCIAL SERVICES IN THE HUALLAGA VALLEY

INTRODUCTION

The purpose of this paper is to present information about some characteristics of the Huallaga Valley (HV) population. It is specifically intended to improve the existing data relative to the growing population, to the space distribution of inhabitants in their provincial and district geographical areas, as well as the participation of the workforce, the migration flow, and the availability of public utilities in the main cities and villages.

In the first part, general data of the zone are described considering the geographical location, area and altitude of the main cities of the forty districts and seven provinces that for the purpose of this report are known as the Huallaga Valley (HV). The foundation dates of such politic-administrative units are presented, information that usually have a close relation with the development of those centers. Due to the influence that the environment has on the increase of the population, some characteristics of the Huallaga River such as the weather and the altitude among others factors are also presented.

In the second part, demographic information of the Huallaga Valley is shown. In this context the increase of population at provincial and district levels of the more important cities are presented stressing the influence of social and economical factors. Particularly important information about the migrating population and its characteristics are given, followed by a presentation of the economical active population and its structure.

The demographic data that are under analysis were taken from National Census (1940-1981), the estimates for 1991 published by INEI and the projections made by CUANTO.

In the third part of this report results are shown of the research made between August 13 and September 7, 1991, in the following cities considered important because of its larger population: Uchiza, Daniel Alomías Robles (Pumahuasi), J. Crespo y Castillo (Aucayacu), Luyando (Naranjillo), M. Dámaso Beraun (Las Palmas), and Irazola (San Alejandro). It was not possible to make a personal survey of Aguaytia (province of Padre Abad) due to the serious confrontations between narcoterrorists and the governmental forces.

In the fourth part testimonies of residents are presented; authorities and residents cooperated directly with our surveyors, along the 25 days of actual research in the field.

In some circumstances the personnel of CUANTO had to change the planned routes for the sake of safety; besides it must be mentioned that unexpected visitors unwilling to identify themselves, were inquiring for details about the survey and the activities of CUANTO in the area.

In the fifth and last part, it is described the methodology of CUANTO to estimate the population of provinces and districts of the zone. The sources of basic information were taken from the administrative records about education and health available in the area, and the numerical data obtained through the cooperation of the authorities of the valley. Besides, it presents an estimate of the number of persons that are working in legal and illegal (cocaleros) agricultural activities.

CUANTO considers that the information presented in this document represents another effort toward the better knowledge of one of the more dynamical

demographic zones of the country that, in this very moment, is suffering a critical situation due to the terrorism and narcotics traffic. This information could be improved with the results of the next Census of Population and Housing expected for 1992 at national level.

Finally, CUANTO wishes to express its special appreciation to the National Council of Population (CNP) for the support received in the above HV mentioned places between August and the first week of September, 1991 (Annex 1).

We express also our gratitude for the cooperation and help received from the Provincial and District authorities; particularly to the Secretary of the Association of Mayors of the Department of San Martín, Ing. Guillermo Vásquez; to Mr. Gunther Garay, to Mrs. Isabel Retiz; to Mr. Víctor Hidalgo, Resident Coordinator of the PEAH/OEA Agreement in Tingo María; to Dr. María Ormachea, Director of the Rural Hospital of Tocache; to Mr. Luis Bogarín in charge of Statistics in the same Hospital; to Mr. Pedro Arévalo Solsol, manager of the BANCO AGRARIO Branch in Tocache; and to all the persons and residents of the area who gave us their valuable cooperation and support with accurate references about the planned itineraries, as well as their worthwhile contribution for enrich our survey.

GENERALITIES

1.1 Geographical location and territorial environment

For the purpose of this report, the "VALLE DEL HUALLAGA" (HV) is considered a zone of the Peruvian Territory that includes, at the present moment (August 1991) the geographical areas of seven provinces: BELLAVISTA, HUALLAGA, MARISCAL CACERES, PICOTA, TOCACHE, LEONCIO PRADO, and PADRE ABAD. The first five ones are located in the Department of San Martín; Leoncio Prado is in the Department of Huánuco and the province of Padre Abad belongs to the Department of Ucayali.

The oldest province, considering the date of its foundation is Huallaga (1866); followed by Mariscal Cáceres created in May 1940; Leoncio Prado who became a province in May 1952 (in the 1940 Census belonged to the district of Chinchao, Province of Huánuco); the fourth province is Pedro Abad, that in 1940 was part of the Province of Coronel Portillo (Department of Loreto); the last three provinces were created in 1984: Bellavista was formerly part of six districts of the Huallaga Province; Picota became a province bringing together 10 districts of San Martín; and Tocache that was created with several districts and small towns taken from the province of Mariscal Cáceres (1).

Forty districts belonging to those seven provinces, were created in different times. The oldest district is Saposoa, that existed as such since the Independence of Perú. The more recently created districts are Nuevo Progreso, Pólvora and Shunte in the Province of Picota (December 1984).

The category of PROVINCE is given to the territorial circumscription that represents a geoeconomic and administrative unit together with its districts and it is the basis of the immediate higher political unit, the DEPARTMENT. The category of

DISTRICT is given to the territorial unit that represents the cell of the political and administrative system and its extension comprises geographical, historical and cultural distinctive characteristics with a population capable of maintaining and demanding utilities, human resources and financial support, for its own administration. It is the basic territorial element in the Micro-Regional Development Program.

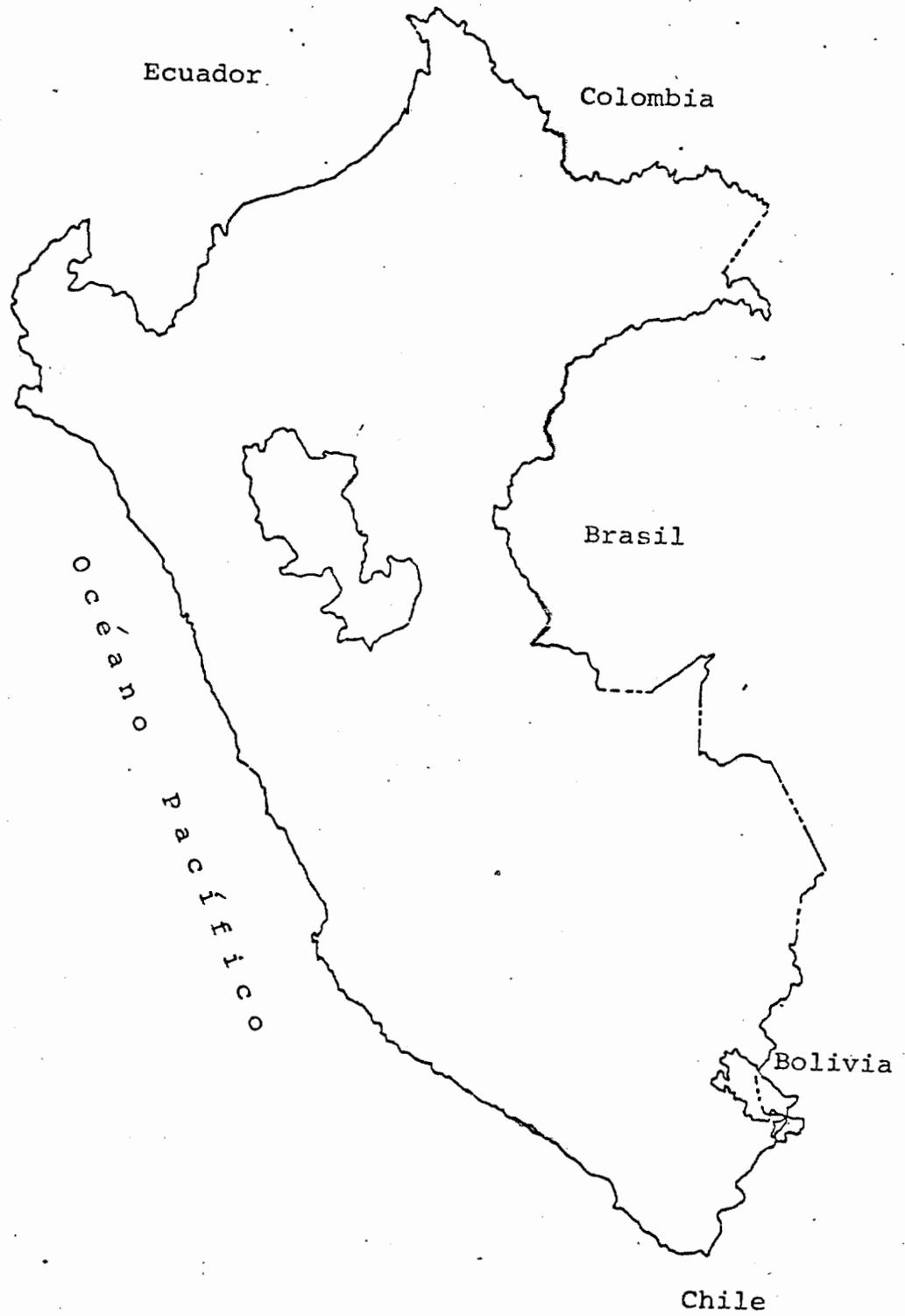
The provinces of the HV belong to three of the new political "Regiones" of Perú: San Martín (in process of becoming a "Region"), Andrés Avelino Cáceres and Ucayali.

Following are presented the Provinces of the HV and its more important cities, considered as such because of their rapidly increasing population.

**PROVINCES OF THE HUALLAGA VALLEY
AND ITS MOST IMPORTANT CITIES
(August 1991)**

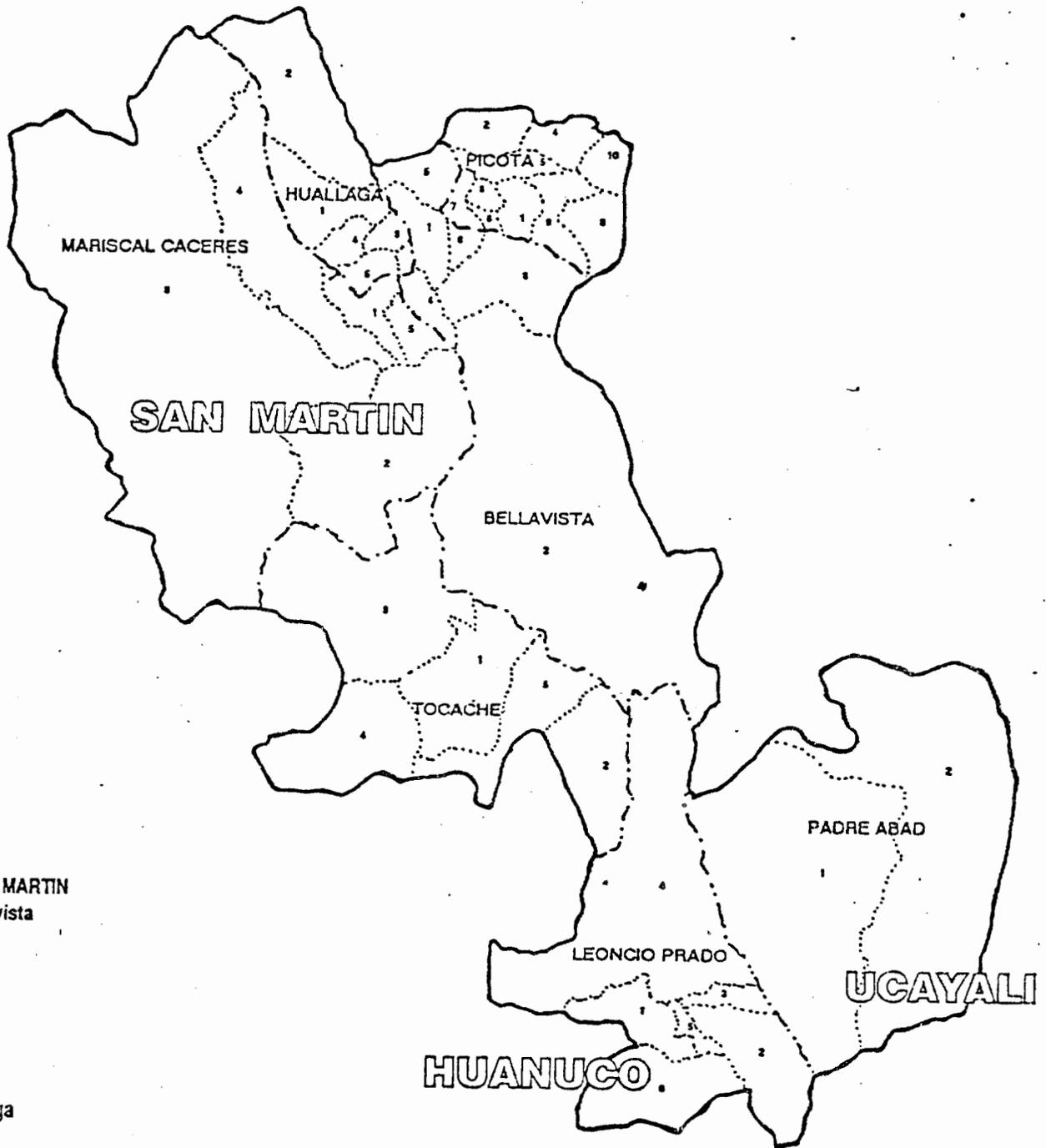
REGION	DEPARTMENT	PROVINCE	CITIES
San Martín	San Martín	Bellavista	Bellavista
		Huallaga	San Pablo
		M. Cáceres	Saposa
		Picota -	Juanjuí
		Tocache	Picota
A. A. Cáceres	Huánuco	Leoncio Prado	Tocache
		D.A. Robles	Uchiza
		J. Crespo y C.	Tingo María
		Luyando	Pumahuasi
		M.D. Beraun	Aucayacu
Ucayali	Ucayali	Padre Abad	Naranjillo
		Irazola	Las Palmas
			Aguaytía
			S.Alejandro

GRAPHIC 1
THE HUALLAGA VALLEY IN THE PERUVIAN MAP



GRAPHIC 2

THE SEVEN PROVINCES OF THE HUALLAGA VALLEY



Dpto. SAN MARTIN
Prov. Bellavista

- 1 BELLAVISTA
- 2 ALTO BIAVO
- 3 BAJO BIAVO
- 4 HUALLAGA
- 5 SAN PABLO
- 6 SAN RAFAEL

Prov. Huallaga

- 1 SAPOSOA
- 2 ALTO SAPOSOA
- 3 EL ESLABON
- 4 PISCOYACU
- 5 SACANCHE
- 6 TINGO DE SAPOSOA

Prov. Mariscal Cáceres

- 1 JUANJUI
- 2 CAMPANILLA
- 3 HUICUNGO
- 4 PACHIZA
- 5 PAJARILLO

Prov. Picota

- 1 PICOTA
- 2 BUENOS AIRES
- 3 CASPISAPA
- 4 PILLUANA
- 5 PUCACACA
- 6 SAN CRISTOBAL
- 7 SAN HILARION
- 8 SHAMBUYACU
- 9 TINGO DE PONAZA
- 10 TRES UNIDOS

Prov. Tocache

- 1 TOCACHE
- 2 NUEVO PROGRESO
- 3 POLVORA
- 4 SHUNTE
- 5 UCHIZA

Dpto. HUANUCO

Prov. Leoncio Prado

- 1 RUPA RUPA
- 2 DANIEL A. ROBLES
- 3 HERMILO VALDIZAN
- 4 J. CRESPO-CASTILLO
- 5 LUYANDO
- 6 M. DAMASO BERAUN

Dpto. UCAYALI

Prov. Padre Abad

- 1 PADRE ABAD
- 2 IRAZOLA

Graphic 1 shows the position of the HV in the Map of Perú and Graphic 2 illustrates the relative site of its provinces, cities and towns.

1.2 Extent of the Huallaga Valley

The total area of HV is approximately 46,743 Km², equivalent to 3.6% of the national territory (1'285,215.60 Km²). The most extended province is Mariscal Cáceres with 14,499 Km² and the smaller is Picota with scarcely more than 2,171 Km². The smallest district are Tingo de Saposoa (37.3 Km²) and San Cristóbal (30 Km²); and the district with the larger territory is Huicungo, created in May 1940, with 9,830 Km² (1).

The population density of the valley is 7 inhabitants for Km². The province of Padre Abad has approximately 2 inhabitants by Km², and Leoncio Prado 26. The population density at national level is 17 persons by Km².

Table No 1, shows provinces, districts, and district capitals, as well as their respective dates of creation, territorial area, population, altitude, and the population density estimated for 1991.

1.3 Altitude, Climate, and Geographical data of the Huallaga Valley

From the geographic point of view the HV presents three different levels: the Upper Huallaga Valley (UVH) (above 800 meters above sea level), the Medium Huallaga Valley (MHV) (400 to 800 m.a.s.l.), and the Lower Huallaga Valley (LHV) (under 400 m.a.s.l.) (2).

The altitude of these districts varies from the 212 m.a.s.l. (Irazola) to 1,500 m.a.s.l. (Shunte). 23 districts exist in the Lower Huallaga Valley; 13 districts in the Medium Huallaga Valley, and 4 districts in the Upper Huallaga Valley.

According to the last Geographic Peruvian Atlas (1989) edited by the National Geographic Institute, the Lower Huallaga Valley (LHV) is a woody prairie with thirty to fifty meters tall trees and natural open areas with old trees and clearings covered with brushwood, thicket, tropical weeds and colorful small trees. The Medium Huallaga Valley (MHV) is plenty of exuberant flora; it is characterized by a variety of forests with tall trees; the climate is humid, warm and rainy. The weather bureau of Tingo María records the highest annual precipitation compared with those of the other twenty four stations of the country, with more than 4,700 millimeters. The Upper Huallaga Valley (UHV) has a dry and a cold climate; the topography is rough and aggressive.

In the HV zone and particularly between the 500 and 1,500 m.a.s.l. in the southeast of the Andes Cordillera, exist natural advantages for agriculture because the soil is fertile, the climate is appropriate for tropical agriculture and the crops of plants rich in alcaloids such as the coca are very productive; this shrub is harvested at any time of the year and two months later it is ready to produce again without any attention. Most of the coca yield goes to the production of cocaine for illegal "exportation, but, at the same time, it is a scourge for the local population; the case is different in the highlands (Sierra) where indians use coca leaves for mastication "chacchar" since old times; it is traditional in the community of the mountains, supposed to give them strength and to tame their appetite. The pharmaceutical industry uses, legally, some quantity of the cocaine extracted from the shrub, for chemical and therapeutic purposes.

It must be mentioned that the territory of the provinces of Bellavista, Huallaga and part of Mariscal Cáceres (which is under our study) are usually identified as Huallaga Central, together with other provinces of the department of San Martín, such as Lamas and San Martín. In similar way, the territory of the provinces of Leoncio Prado, Tocache and part of Mariscal Cáceres are identified as Alto Huallaga.

The "Instituto de Geología, Minería y Metalurgia" (INGEMMET), states that there are 29 glaciers in the basin of the Huallaga River, with an extension of 12.49 Sq² averaging a thickness of 29.1m.

Between the provinces of Leoncio Prado and Padre Abad is the mountain pass named "Boquerón del Padre Abad", situated at 1,000 m.a.s.l. that lets the Main Highway to Pucallpa cross the Andes Western Cordillera. Another important mountain pass, the "Abra de Dos Cruces" at 4,350 m.a.s.l. exists in the district of Huicungo in the province of Mariscal Cáceres. And there is the "Abra Ventanas" at 4,200 m.a.s.l. in the province of Pataz.

National reserves exist in this valley, among them, the "Bosques Nacionales" whose exploitation is limited by the Government through public bids under very special conditions. One of those reserves in the province of Mariscal Cáceres has an extension of 137,000 hectares (Has).

There are also "Bosques de libre disponibilidad" in the districts of Tocache and Aucayacu (559,000 Has) and in Saposoa (534,000 Has); these forests can be exploited privately under especial authorization of the "Dirección General Forestal y Fauna (DGFF) that belongs to the Ministry of Agriculture.

The geographical and ecological characteristics of the Huallaga Valley represents a vast potential of incalculable value for the development of agriculture, cattle raising, fishing industry. Socio cultural capacity of the population, the traditional local handicraft industries and tourism represent also broad possibilities for the material progress of the HV. Notwithstanding, a prompt substitution of coca plantations is a must; the production of rice, maize, bananas, cotton, beans, tobacco, coffee, soy beans, cacao, citrics should be encouraged to replace the "cocales".

1.4. Huallaga River (2)

The Huallaga River is the largest and more important affluent of the Marañón River, and one of the important rivers that conform the hydrological system of the Amazon Basin. It flows from South to North and together with its own affluents makes a fair-sized and fertile valley. It is 1,138 kms long, begins in the Huascacocha Lake, department of Pasco, at 4,710 m.a.s.l.; at its origin takes the name of Yanahuanca River; then it is called Blanco River and Chanpihuanga, and from its confluence with the Huariaca River takes the name of Huallaga River. Then comes down to the "Eyebrow of the Jungle" (the fertile Amazon Jungle around 1,000 m.a.s.l.) and continues Northbound to disembogue in the huge Marañón River. From its very origin in the rough "Nudo de Pasco" and along all its basin, flows through mining territories, and high altitude (punas) community farms around of Yanahuanca (3,500 m.a.s.l.), highland valleys with long history and folklore (Ambo 2,050 m.a.s.l., and Huánuco 1,900 m.a.s.l.), old jungle colonies (Tingo María 650 m.a.s.l. with a National Park, famous for its landscapes and fauna) and more recent colonies (Tocache and Campanilla).

It is in Tingo María where the Huallaga River becomes wider and more fit for important socio-economical settings. Here the river begins to wander and forms capricious meanders that along the time evolve to form "cochas" and "tipishcas", small lakes of fluvial origin.

The river becomes fit for navigation in rafts and canoes with overboard motors from Tingo María to the "Pongo (rapid) de Aguirre"; small steamships navigate between this pongo and the Marañón River. Landing places, small harbors serve, along its course, to the towns of Tingo María, Aucayacu, Tocache, Nuevo Progreso, Juanjuí, Tingo de Saposoa and Bellavista. Obstacles to navigation, usually rapids named "Malos Pasos" represent inconveniences to transportation of products and merchandise; the more serious are the "Malos Pasos" of Aspuzana, Madre Mía and

TABLE 1
GENERAL INFORMATION ACCORDING TO PROVINCES AND DISTRICTS, CAPITAL
CITIES, FOUNDATION DATE, AREA, ALTITUDE AND DENSITY OF POPULATION HV
1991

PROVINCES OF DISTRICTS	Capital	FOUNDATION DATE	AREA Sq. Km.	ALTI- TUDE m.a.s.l	POPU- LATION 1991 *	DENSI- SITY 1991 *
HUALLAGA VALLEY			46,742.8		320,600	6.9
BELLAVISTA		01.05.84	8,050.9		37,150	4.6
Bellavista	Bellavista	15.10.25	287.1	249	13,100	45.6
Alto Biavo	Cuzco	05.01.45	6,117.1	480	4,200	0.7
Bajo Biavo	Nueva Lima	31.01.44	975.4	350	4,800	4.9
Huallaga	Ledoy	19.03.65	210.5	310	2,750	13.1
San Pablo	San Pablo	05.01.45	362.5	400	8,650	23.9
San Rafael	San Rafael	05.01.45	98.3	311	3,650	37.1
HUALLAGA			07.02.866	2,380.9	17,650	7.4
Saposa	Saposa	00.00.824	545.4	307	8,950	16.4
Alto Saposa	Pasarraya	13.09.63	1,347.3	820	1,350	1.0
El Eslabon	El Eslabon	10.10.63	122.8	286	1,450	11.8
Piscoyacu	Piscoyacu	14.06.40	184.9	301	2,150	11.6
Sacanche	Sacanche	20.05.36	143.2	272	2,800	19.6
Tingo de Sap	T.de Saposa	08.05.36	37.3	313	950	25.5
MCAL. CACERES			07.05.40	14,498.7	35,450	2.4
Juanjui	Juanjui	07.02.866	335.2	283	17,800	53.1
Campanilla	Campanilla	24.01.59	2,249.8	400	4,750	2.1
Huicungo	Huicungo	07.05.40	9,830.2	335	5,400	0.5
Pachiza	Pachiza	07.02.866	1,839.5	328	3,650	2.0
Pajarillo	Pajarillo	15.12.61	244.0	310	3,850	15.8
PICOTA			30.11.84	2,171.4	26,400	12.2
Picota	Picota	14.08.20	218.7	223	5,250	24.0
Buenos Aires	Buenos Aires	07.04.54	273.0	215	4,000	14.7
Caspisapa	Caspisapa	31.01.44	81.4	310	1,400	17.2
Pilluana	Pilluana	31.01.44	239.3	302	1,450	6.1
Pucacaca	Pucacaca	08.05.36	230.7	217	3,800	16.5
S. Cristobal	Puerto Rico	31.01.44	29.6	310	1,150	38.9
S. Hilarion	San Hilarion	28.08.859	96.6	311	2,100	21.7
Shambuyacu	Shambuyacu	29.01.65	415.6	600	1,800	4.3
T.de Ponaza	T.de Ponaza	22.11.60	340.0	400	3,350	9.9
Tres Unidos	Tres Unidos	19.02.65	246.5	500	2,100	8.5
TOCACHE			07.12.84	5,865.4	57,900	9.9
Tocache	Tocache	07.05.40	1,142.0	497	22,500	19.7
Nuevo Progr.	N. Progreso	07.12.84	861.0	490	11,200	13.0
Polvora	Polvora	07.12.84	2,174.5	450	6,100	2.8
Shunte	Tambo de Paja	07.12.84	964.2	1,500	2,000	2.1
Uchiza	Uchiza	21.10.12	723.7	544	16,100	22.2
LEONCIO PRADO			25.05.52	4,953.0	129,900	26.2
Rupa Rupa	Tingo Maria	09.04.46	428.6	649	58,550	136.6
D. A. Robles	D. A. Robles	27.05.52	710.9	1,000	7,850	11.0
H. Valdizan	H. Valdizan	27.05.52	117.2	1,250	5,700	48.6
J. Crespo	CastAucayacu	26.12.63	2,829.7	540	35,950	12.7
Luyando	Luyando	27.05.52	100.3	700	9,400	93.7
M.D. Beraun	Las Palmas	27.05.52	766.3	719	12,450	16.2
PADRE ABAD			01.06.82	8,822.5	16,150	1.8
Padre Abad	Aguaytia	13.11.61	4,663.7	287	11,050	2.4
Irazola	S. Alejandro	01.06.82	4,158.8	212	5,100	1.2

Source: INEI General Director for Census

Campanilla. The fluvial transportation has created typical characters, such as the "Bogas" or "Balseros", skilled pilots who know the secrets of every "Malos Pasos" in the Huallaga River and its affluents.

Important canyons or gorges exist along the Huallaga River such as the "Cajón del Sillón" which ends in the "Mal Paso de Cayubamba"; another hazardous canyons are the "Pongo de Aguirre" and "Pongo de Huamanhuasi". Beyond to "Pongo de Aguirre" the river is wide and extended and overflows large areas in the rainy season, fertilizing soils that are advantageously cultivated in the dry season using the capilarity farming system.

II DEMOGRAPHIC ASPECTS

For the best evaluation of population and its characteristics, it is necessary to go back to the past, to understand the present and to have a better insight of the future in the HV.

It is probable that the population origin of the Huallaga Valley is very ancient. It is well known that in Huánuco, at the shores of the Higuera River exist archeological ruins of the Kotosh Culture, possibly 3,800 years old. The tradition tells that the first settlers of Saposoa (the oldest district in the Valley of Huallaga) are descendents of Lamistas Indians and of the rebellious Chancas tribes; the Chancas under the command of famous Anko Huallo were a continuous menace to the Incan Empire; defeated by the Inca Wiracocha, these brave tribe had to flee to the jungle of the Huallaga Valle through the Mayo River.

2.1 Colonial Period and the Beginnings of the Republic (3)

The HV was inhabited long time before the arrival of Spanish Conquerors to Perú. Only in recent times the Catholics Missions discovered the existance of tribes that

inhabited the fertile basin of Huallaga River.

The Mountainous Andes population arrived to the Huallaga Valley not only through the Mayo River, but also crossing affluents rivers such as the Huallabamba (city of Juanjui), Tocache (town of Tocache Nuevo), Chontayacu (Uchiza, town whose foundation happen at the end of XVIII century), Monzón (Tingo María) and Saposoa (Tingo de Saposoa).

The Spaniards, convinced that Missions were the best effective way to conquer and to catechize the Amazonía and subdue the natives through catechization, gave strong support to the penetration of Catholic Congregations to the "mysterious jungle". The first pioneers were not only chaplains but, very often, adventurers or even "encomenderos". In 1545, Francisco de Orellana discovered the Amazonas River accompanied by the Dominican Frail P. Carbajal, who bestowed the world with the first Treatise on the Amazon Jungle Geography. The Spanish Captain Pedro de Ursúa founded the actual city of Saposoa.

According to the "Crónicas" (records) of the Franciscan Order explorers, the Monastery of Ocopa was established in 1580, from where the franciscans expanded their Missions to the Huallaga Basin looking for the Panatahuas, Teriganeses, Tullumayos, Motilones, Payausos, Cholones, Híbitos and various other tribes. Others expeditions such as the one of Pedro de Ursúa (1560) navigated down the Mayo and the Huallaga rivers; Father Felipe Luyando (1631) penetrated through the Chinchao River Valley all the way to the Tulumayo River, where he established Main Missions, and founded seven villages, Tomía and San Felipe among them, and opened important roads across the basin.

In 1641, Father Illeras pioneered courageously through the Perené, Ene, Tambo, Alto Ucayali valleys arriving to the Aguaytía River where he was murdered by the tribe of Shipibos.

With the 1742 rebellion of Juan Santos Atahualpa against the missions the spanish and mestizo population abandoned the area for many years.

In 1755, Father Alonso Abad departing from Tingo María and following the Tulumayo valley, intended to discover a direct pass between Chincheros and the "Pampas del Sacramento"; after failing, in 1757 he tried again following the Yuracyacu river, discovering successfully the famous "Boquerón" pass, and arrived to Aguaytía in June of the same year; this route has become to be the first penetratation road from Lima to Ucayali crossing the Oriental Cordillera. Today that pass is called "Boquerón del Padre Abad". In that year, 1757, the "Colegio de Propagación Católica FIDE", was created, precisely in the Convent of Ocopa becoming a gravitation center of jungle missions in the whole Amazon Jungle.

Between 1757 and 1821, the religious missions continued working exclusively in that zone. They discovered the best communication routes from Lima to different basins of the jungle. It was a very important accomplishment of Father Sobreviela in 1792 to have made an important map of the Huallaga and Ucayali Geographycal Zone, including the "Pampas del Sacramento". In 1794, Father Girbal draw another map showing a new discovered route from the Huallaga to the Ucayali basin passing through Santa Catalina. During all his visits, the Franciscan Missions found consolidated towns with absolute absence of seglars settlers.

Immediately after the independence, Bolívar transformed the "Colegio de Propaganda FIDE of Ocopa" into a Laical National College. Years later President Orbegozo revoked Bolívar's degree calling it "Colegio de Misiones de Ocopa".

In 1833, the Government interested in the colonization and the development of the Huallaga Basin, sent german and peruvian settlers who established themselves along the valley.

In 1852, in the districts of Tocache and Uchiza developed a pock epidemic which caused a large mortality. In 1859, the famous Italian Naturalist and Geographer Antonio Raimondi explored the Huallaga River all along its basin through its mouth in the Marañón.

In 1865, the steamship Putumayo navigated the Huallaga River for the first time. Since then until 1900 the valley was colonized by mestizos and quechuas who migrated mainly from Celendín, Huamachuco, Ancash and La Libertad.

From 1900 to 1914 the population increased rapidly, in part due to the extraction of wild indian rubber, which had a impressive national and international demand because of its importance in the development of transportation and industries.

The towns that were established in the rubber exploitation period, began as small settlements along the Huallaga River. The primitive exploitation of rubbers trees, consisted in the extraction of the sap sirup, which was smoked and stored as crude rubber in large balls to be shipped up the river to Tingo María. That was the way how towns developed becoming important cities such as Saposoa, Juanjuí, Aucayacu. When the rubber exploitation lost its economical importance in 1920, many of the people who staid in the zone with their families coming back to traditional farming labors.

Since then, the population of the valley has been concentrating in small towns, and group of houses close to the rivers and bridle roads. At the beginning, the new settlers made clearings and cultivated the fertile soils, later began felling trees without any selection; the land was impoverished and exploited just to feed the local demand.

In 1930, the valley population was 18,000 representing mainly nucleus of families (parents and sons) and also lone young migrants that sought jobs as "Shiringueros"

(wild rubber recolectors) and who brought their families later. After 1930, the zone of Huallaga received the Government attention, through colonization programmes for the promotion of agriculture and agroindustrial development. The production of the coca was at its beginning, primarily used for its traditional consumption in the Andean Highlands (Sierras).

2.2 POPULATION INCREASE

Year 1940 (4)

In 1940, the first National Census was taken with reliable and valuable results; at that time the estimated population of the seven provinces of the valley was appraised in 30,500 people, representing 0.4% of the national population.

The highest concentration of inhabitants was found to be in the provinces of Huallaga (8,700), Mariscal Cáceres (6,200), and Picota (6,300), making all together 70% of the total population in the valley; just two cities followed with more than 2,000 inhabitants: Juanjuí (2,118) and Saposoa (3,243).

The First Demographical Explosion 1940 - 1961 (5)

In the period between 1940 and 1961, the Huallaga Valley developed extraordinarily. Its population, according to the Census of 1961, reached 87,300 representing 0.9% of the population of Perú. The annual average population increase reached 5.2%, similar to the increase of Lima Metropolitana (5.2%) in the same period; and compared with the total of 2.2% increase for Perú.

The provinces of the valley that had significative annual increase rates are: Leoncio Prado (11%), Padre Abad (10.4%) and Bellavista (5.5%). Only a city of the Coast, Chimbote, has had a population increase at the strange rate of 13%, due to

the apogee of the fish meal industry.

In 1943, when the Central Road Lima - Huánuco - Tingo María Pucallpa was built, the access to the valleys from Lima and the Coast of Perú, was greatly facilitated. The new road intensified the immigration to the valley and to villages on the shores of the Huallaga. Hundreds of people moved into places such as Tingo María, Tocache Nuevo, Campanilla and Juanjuí.

Along the rivers, new areas were opened for commercial agriculture of tea, coffee, cacao, tobacco and other tropical products increasing the rural population. The temporal help brought to fill agriculture jobs stayed in the area, attracted by its fertil crops, and promptly their families were joining them to open new clearings and farms, for their own subsistence.

In 1961, growing and blooming cities developed with a promising future, such as Tingo María (5,000 inhabitants), Saposoa (4,500 inhabitants), Juanjuí (4,000), Picota and Bellavista (2,000 each one).

Between 1961 and 1972 (6)

According to the 1972 Census the population for the zone was 146,480 representing 1.1% of the population of Perú. In the period 1961/72, the population of the whole country was growing at 2.9% annual average; the immigration was the cause of the rate of population increase of the eleven more important cities (4.7%) (Table 3).

In this period, the province of Tocache increased its population 2.5 times and Leoncio Prado 2.3. The province of Huallaga, that was the more populated in the 1940s loses importance, getting just 14,047 people with a less than 1% annual increase.

In 1972, there are seven cities with more than 2,000 inhabitants: Bellavista (2,660), Saposa (5,340), Juanjuí (6,470), Picota (2,260), Tocache (3,480), Tingo María (13,470) and Aucayacu (3,910). Among these, two of them duplicate their population in nine years: Tingo María (from 5,200 to 13,470) and Tocache (from 1,607 to 3,480). (Table 6).

The first stage of the construction of the Marginal Road (1964 -1966) joining Tingo María with Aucayacu and Tocache, encouraged the immigration. Most of the workers came from other provinces of Huánuco and later from the Jungle and the Coast; farmers also arrived from the highlands, particularly those who wanted to relocate themselves after the earthquake of 1970 (8).

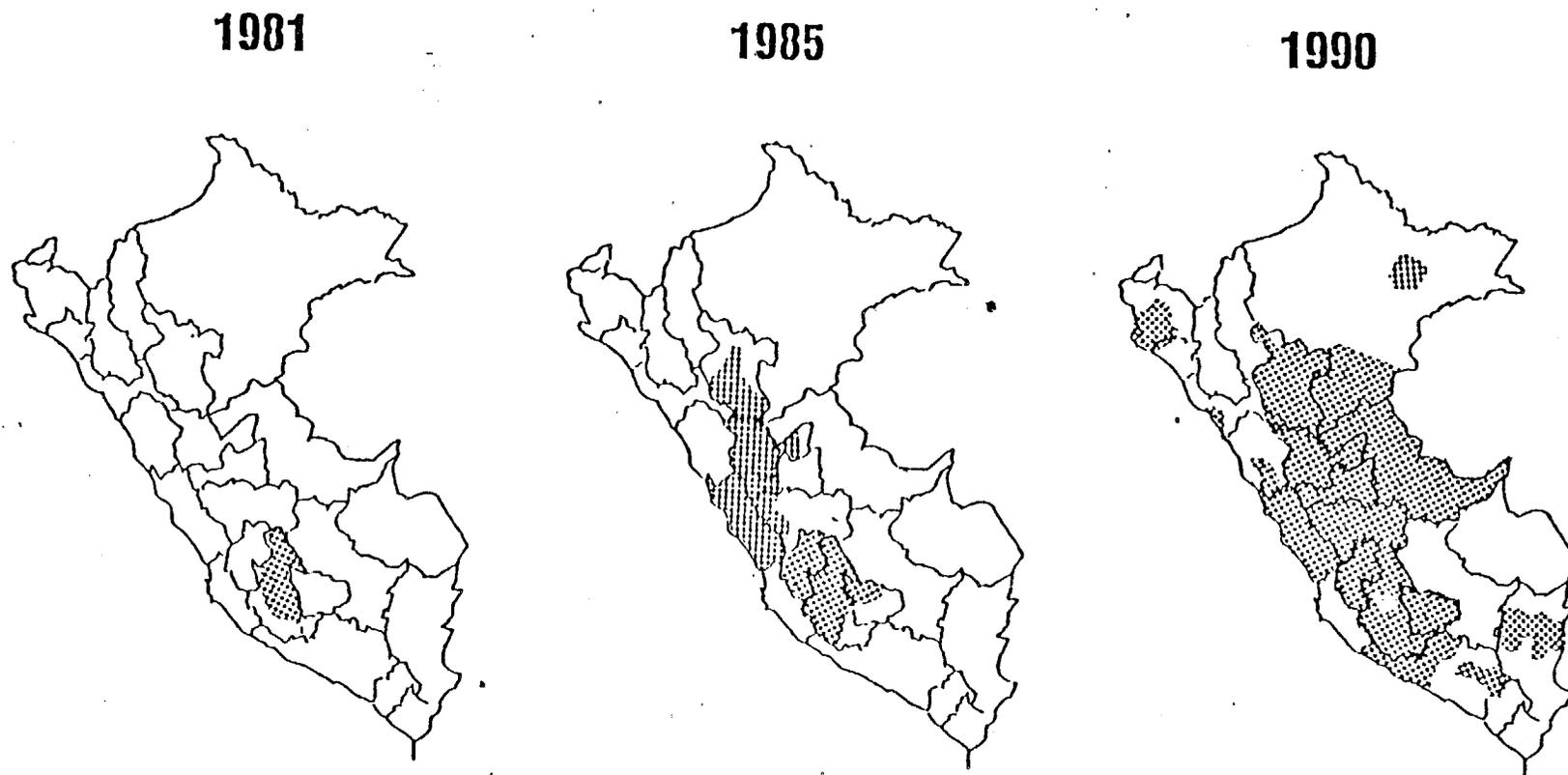
In the period 1961 - 1972, when the best farmland were used for different tropical crops, began a new trend: the "mejoreros", late arriving people without ownership of land, leased some land in order to improve, and cultivated the soil during three or five years collecting the gross profits; returning the "improved" land to the owner at the end of the lease.

From 1972 to 1981 (7)

The 1981 Census registers for the HV a population of 200,000. The rate of increase since the last census (1972) is 3.5%, less than the 4.7% rate of previous ten years. In the same period (1972-1981) the rate of population increase in Metropolitan Lima was 3.9% and in other urban zones, about 4.0%, owing to the significant rural to urban migration or the migratory trend from the small towns to the big cities.

In 1981, the province of Leoncio Prado, continued to be most populated with more than 80,000 with a 4.2% rate of increase; in second place was Tocache with 6.8% and a population of 29,600. The less populated provinces were: Padre Abad (11,503), and Huallaga (15,361); the last one suffering a critical period because of

GRAPHIC 3
PERUVIAN ZONES IN EMERGENCY STATE IN 1981, 1985 AND 1990



Fuente: LA VITALICIA, Cía de Seguros

strong emigration to other places; its rate is just 1% annual. (Tables 2 and 3)

The farming of coca increased extensively in the seventies and eighties, and the crops were exclusively used for the production of cocaine basic paste. We must not forget that the Andean farmers of Perú had the old habit of "chacchar" (masticate and chew) coca leaves, but their demand is too small compared with the present marketing of the narcotic produce. That is why the farming task labor increased enormously, considering the high salaries and economical benefits. The population continued increasing, notwithstanding that the government Colonization Programs ended in 1975-1976, had represented a significant aid to the farmers. The spread of terrorism begins in the eighties, when the terrorist groups established their main basis in the HV. **Graphic 3** shows an impressive increase of the areas under emergency, that in 1990, covers the whole Huallaga Valley.

Population in 1991

The reviewed INEI estimate of the 1990 population is 288,093; the INEI has not published population estimates at district level for 1991. The National Council for Population considers 282,952 (21), as the population of the HV, taking in account the December 1990 projections of INEI.

The not so convincing explanation given by INEI for the large difference respect to its previous estimates, is "because the new survey have shown that the fertility has diminished more than expected, the mortality index is under projected margins, and there is an increasing process of international emigration from the area". The new population projection at national level, reduced the previous estimates in 782,000 inhabitants. The ciphers at provincial level were taken adjusting the population totals estimated for Departamentos, using the "Square Table Methodology" (INEI) and taking care of "smoothing the distribution" For the

TABLE 2
 HUALLAGA VALLEY
 POPULATION BY PROVINCES AND DISTRICTS
 National Census 1940/1961 and Estimations 1990/1991

PROVINCES AND DISTRICTS	NATIONAL CENSUS				ESTIMATIONS			RATES	
	1940	1961	1972	1981	1990 INEI	1991 INEI	1991 CUANTO	1981/91 INEI	1981/91 CUANTO
TOTAL	30500	87983	146480	199790	288093	282952	320600	3.5	4.8
BELLAVISTA	3023	9221	14889	18851	24653	24408	37150	2.6	7.0
Bellavista	3023	3728	4822	6451	8929	8840	13100	3.2	7.3
Alto Biavo	n.d.	1221	2341	2585	2840	2812	4200	0.8	5.0
Bajo Biavo	n.d.	1466	2169	2544	3217	3185	4800	2.3	6.6
Huallaga	n.d.	n.e.	1933	2349	1897	1878	2750	-2.2	1.6
San Pablo	n.d.	1353	1898	2856	5458	5404	8650	6.6	11.7
San Rafael	n.d.	1453	1726	2066	2312	2289	3650	1.0	5.9
HUALLAGA	8745	14118	14056	15361	15583	15427	17650	0.0	1.4
Saposa	5855	8187	7789	8314	7682	7605	8950	-0.9	0.7
Alto Saposa	n.d.	n.d.	1227	1243	1312	1299	1350	0.4	0.8
El Eslabon	n.d.	n.d.	1295	1298	1372	1358	1450	0.5	1.1
Piscoyacu	n.e.	1251	1369	1647	1857	1838	2150	1.1	2.7
Sacanche	1459	2314	1487	1968	2419	2395	2800	2.0	3.6
T.deSaposa	1431	2366	889	891	941	932	950	0.5	0.6
MCL CACERES	6205	14223	20190	24625	33618	33283	35450	3.1	3.7
Juanjui	4062	8436	9333	12007	17892	17714	17800	4.0	4.0
Campanilla	n.d.	1605	3861	4204	4371	4327	4750	0.3	1.2
Huicunqo	814	2260	2983	3722	4455	4411	5400	1.7	3.8
Pachiza	1329	1922	2148	2607	3372	3338	3650	2.5	3.4
Pajarillo	n.d.	n.d.	1865	2085	3528	3493	3850	5.3	6.3
PICOTA	6272	12796	16198	19475	24399	24157	26400	2.2	3.1
Picota	4137	3162	3995	4409	5347	5294	5250	1.8	1.8
Buenos Aire	n.d.	1629	1963	2739	3879	3840	4000	3.4	3.9
Caspisapa	n.d.	999	1073	1114	1315	1302	1400	1.6	2.3
Pilluana	n.d.	1885	1050	1103	1329	1316	1450	1.8	2.8
Pucacaca	2135	1945	2498	2891	3457	3423	3800	1.7	2.8
S.Cristobal	n.d.	717	822	905	1072	1061	1150	1.6	2.4
S.Hilarion	n.d.	574	803	1277	1817	1799	2100	3.5	5.1
Shambuyacu	n.d.	n.d.	1204	1350	1712	1695	1800	2.3	2.9
T.dePonaza	n.d.	1885	1728	2283	2736	2709	3350	1.7	3.9
Tres Unidos	n.d.	n.d.	1062	1404	1735	1718	2100	2.0	4.1
TOCACHE	2677	6489	16415	29591	50908	50400	57900	5.5	6.9
Tocache	1305	3842	9276	15725	19781	19584	22500		
N.Progreso	n.d.	n.d.	n.d.	n.d.	9826	9728	11200		
Polvora	n.d.	n.d.	n.d.	n.d.	5369	5315	6100		
Shunte	n.d.	n.d.	n.d.	n.d.	1760	1742	2000		
Uchiza	1372	2647	7139	13866	14172	14031	16100		
L.PRADO	2740	24475	55632	80384	124988	121550	129900	4.2	4.9
Rupa Rupa	n.d.	7630	n.d.	33293	61823	60123	58550	6.1	5.8
D. A.Robles	n.d.	3118	n.d.	4763	6495	6316	7850	2.9	5.1
H.Valdizan	n.d.	1828	n.d.	2831	3855	3749	5700	2.8	7.2
J.Crespo-Ca	n.d.	n.	n.d.	23110	33003	32095	35950	3.3	4.5
Luyando	n.d.	8607	n.d.	7631	8593	8357	9400	0.9	2.1
M.D. Beraun	n.d.	3292	n.d.	8756	11219	10910	12450	2.2	3.6
PADRE ABAD	838	6661	9100	11503	13944	13727	16150	1.8	3.5
TOCACHE	2677	6489	16415	29591	50908	50400	57900	5.5	6.9
Tocache	1305	3842	9276	15725	19781	19584	22500		
N.Progreso	n.d.	n.d.	n.d.	n.d.	9826	9728	11200		
Polvora	n.d.	n.d.	n.d.	n.d.	5369	5315	6100		
Shunte	n.d.	n.d.	n.d.	n.d.	1760	1742	2000		
Uchiza	1372	2647	7139	13866	14172	14031	16100		

Source: INEI National Census

estimates at district level, INEI said that "its information should be taken only as reference" (10).

CUANTO estimates for 1991 a population of 320,600 for the whole HV, that represents 1.5% of the total for Perú (22,006,000). The average rate of annual increase would be of the order of 4.8% the last decennial. The rate at national level is estimated as 2.2%. According to the CNP, the rate of annual increase in the last ten years is only 3.5% , similar to the one observed in the intercensus period 1972 - 1981.

In **Table 2**, the total population of HV is presented by provinces and districts, according to the population national census taken since 1940 until 1981. In the last column are the estimates for 1991, according to the evaluations made by INEI and CUANTO. The demographic grow in this area, in the last fifty years has been spectacular. Since 1940, the population has increased eleven times.

Influence factors in the population increase 1981/1991

Various events happened in the last decennial, which have had a great deal of influence in the HV; the more important being the increase of migration particularly of the farming population. Diverse enterprises and national and international organizations have promoted the development and economic progress of this area. Some of the factors undoubtedly have catalized the increase of population are the following:

- Agricultural support for the substitution of ~~coca~~ farming. Promoted by the "Fondo de las Naciones Unidas para el Control del Abuso de la Droga (UNFDAC)", it began with a Cooperative setup, the Naranjillo (district of Luyando), for expanding cacao plantations and establish a processing plant;

besides additional technical cooperation. 3,316 people were the beneficiaries (8).

- A project to install a pilot electrical power station in the Uchiza Cooperative. (UNFDAC) (8).
- Special projects for the general development of the Amazon Jungle (1979) described later in detail (11).
- Enlargement of Air Terminals (as the Pona Airport in Saposoá), and the beginning of air transportation services and commercial interchange.
- Birth of private organizations and foundations (ONGS) to preserve the Ecology.
- Improvement of construction techniques (use of the improved "quincha", for instance) for housing, schools, sanitary post, drinking water plants, and electrical networks.
- Setup of three satellite communication stations in Juanjuí, Saposoá and Tocache, in 1983, integrating the Satellite Communication System, which is a part of the Project of Rural Communications network. (13)
- Setup up of an agroindustrial plant, close to the Saposoá - Piscoyacu road, planned to improve the exploitation and marketing of tropical fruits produced in the area; this project was financed with loans of the Dutch Stichting Foundation in 1984 (13).
- Oil explorations fieldworks made by ONG-SEDIAL, subcontractors of the Mobil Oil Corporation.

- Setup of a Mobile Unit of Rural Patrol (UMOPAR), under the Ministry of Interior.
- Inauguration of the Sisa River Canal, in San José de Sisa, near the San Pablo district, that contributed to the rapid development of populated centers such as Consuelo, Huimboyacu, Fausa La Vista, and Dos de Mayo. The San Pablo district is the one whose population increased faster in the province of Bellavista. Here, local evaluations for some villages gave the following results: Cuzco (418), Santa Elena (350), Chimbote (275), and San Ramón (254); in all these places the index of masculinity are higher than 130% that is more than 130 men for each 100 women (13).

Special projects (11)

The increase of population have had a great deal of influence in the design and operation of three special projects in the HV. Their purpose is to promote the development and the integration of this zone to the National Economy; besides to improve the quality of life of the rural population, with better social services for education, health and sanitary conditions; to stimulate planning for occupation of land along the Marginal Road (Carretera Marginal de la Selva); to increase the productivity of the soil improving systems for farming, cattle rising and more reliable credit programs; the setup of ensilage and stowage centers; irrigation infrastructures; availability of agricultural machinery spare parts; development of systems for the rational exploitation and conservation of natural resources. The following projects already in progress since 1979 have contributed to the development and integration of the HV:

The special project "Huallaga Central y Bajo Mayo" began in 1979 in the provinces of Bellavista, Huallaga and Mariscal Cáceres of the Huallaga Valley besides other provinces of the department of San Martín. It includes the Hidroelectric plant of

Gera with 5,600 Kw. to cover the energy needs of the provinces of Moyobamba and Rioja; this project is promoting also the Sisa Valley irrigation that comprehend 17,000 Has. of land with promising fertile possibilities.

The special project of "Alto Huallaga" (1982), which covers the whole area of the provinces of Leoncio Prado, Tocache and part of the province of Mariscal Cáceres.

Since 1983, the Special Project for Rehabilitation and Development of the rivers Ucayali, Chontayacu y Purús basins, as well as the province of Tocache and some other areas of the departments of Ucayali and Loreto. Its purpose is to improve the maintenance and operation of public utilities affected by heavy rain and floods.

Other interesting project in the Tocache area in charge of a private concern is that one of "Palma de Espino" which has large plantations of "Palma aceitera" (rich oil producing palm trees); it employs qualified farmers who received housing accommodations, recreations and educational facilities. (13)

Population Increase Rates

The average annual increase rate of population in the HV in the whole period of this study shows particularly different characteristics compared with others places of the country.

At national level, the annual increase rate of population in the 1940/1961 period was 2.2% reaching to a maximum of 2.9% in the 1961/1972 decade; in the next decennial it was reduced to 2.6%, and according to projections of the INEI it is estimated that in the last ten years the annual rate will be 2.2% (Table 3).

According to CUANTO, the annual population increase rate of the HV in the last

decennial was 4.8%, higher than the observed in the previous decade (3.5%). The official estimates also consider a 3.5% increase.

The increase of urban and rural population at national level shows different behaviors with some variations in the urban areas, but always decline in the rural area. The urban and rural sectors present different increase dynamics as well as social and economical characteristics relative to education, standards of consumerism, participation of the workforce, levels of employment and wages, availability of housing and public services.

Table 3

**ANNUAL INCREASE RATES BY PERIODS OF
THE POPULATION OF THE HUALLAGA VALLEY,
IN SOME AREAS**

	1940 1961	1961 1972	1972 1981	1981/91 Official	1981/91 CUANTO
Perú	2.2	2.9	2.6	2.2	-
Urban Area	4.2	5.7	4.0	3.0	-
Rural Area	1.3	1.2	1.1	0.8	-
Lima Metropolitana	5.2	5.5	3.9	3.4	-
<u>HUALLAGA</u>	<u>5.2</u>	<u>4.7</u>	<u>3.5</u>	<u>3.5</u>	<u>4.8</u>
Bellavista	5.5	4.5	2.7	2.6	7.0
Huallaga	2.3	-0.5	1.0	0.0	1.4
M. Cáceres	4.0	3.2	2.2	3.1	3.7
Picota	3.5	2.2	2.1	2.2	3.1
Tocache	4.3	8.8	6.8	5.5	6.9
Leoncio Prado	11.0	7.8	4.2	4.2	4.9
Padre Abad	10.4	2.9	2.6	1.8	3.5

In **Table 3** is shown the increase of provinces population, since 1961 to 1991, emphasizing important increments in the provinces of Bellavista, Mariscal Cáceres, Tocache and Leoncio Prado.

Population Importance at Provincial Level

The special importance of the population at provincial level along the four census periods and until 1991 is heterogeneous. In fact, in 1940, the highest population was represented in Huallaga (28.7%), followed by Picota (20.6%) and then Mariscal Cáceres (20.3%); the other four provinces had less importance.

Since the seventies, Leoncio Prado was the most populated province with 28% of the total population in 1961, reaching 40.5% in 1991. It is followed by Tocache (18.1%), Bellavista (11.6%), Mariscal Cáceres (11%) (**Graphic 4 and Table 4**).

Table 4

PERCENT PARTICIPATION OF PROVINCES

ACCORDING TO THE 1940 TO 1981 CENSUS AND THE ESTIMATES OF 1991

Provinces	1940	1961	1972	1981	1991
Total	100.0	100.0	100.0	100.0	100.0
Bellavista	9.9	10.5	10.2	9.4	11.6
Huallaga	28.7	16.0	9.6	7.7	5.5
Mariscal Cáceres	20.3	16.2	13.8	12.3	11.0
Picota	20.6	14.5	11.1	9.7	8.2
Tocache	8.8	7.4	11.2	14.8	18.1
Leoncio Prado	9.0	27.8	38.0	40.3	40.5
Padre Abad	2.7	7.6	6.1	5.8	5.0

2.3 Urban and Rural Population

At national level, the exodus from the rural areas to towns and cities represent a normal trend of migration in the whole country. But the Huallaga Valley has been a significant exception to this rule; in fact, the HV offers wide open opportunities to get jobs in primary activities, such as agriculture, forestry, cattle rising, fishing, hunting and others that gravitate in the rural zone.

The arrival of colonists and settlers to the valley along the last half century has been an important factor for the rural development of the HV. In 1940, the residents of the rural area represented 62% of the total population; It is estimated that in 1991 its participation only reaches to 49%. At national level, half a century ago, the rural area residents represented 65% of the population. It is estimated, in contrast, that in 1991, the rural population only reaches to 29.7%

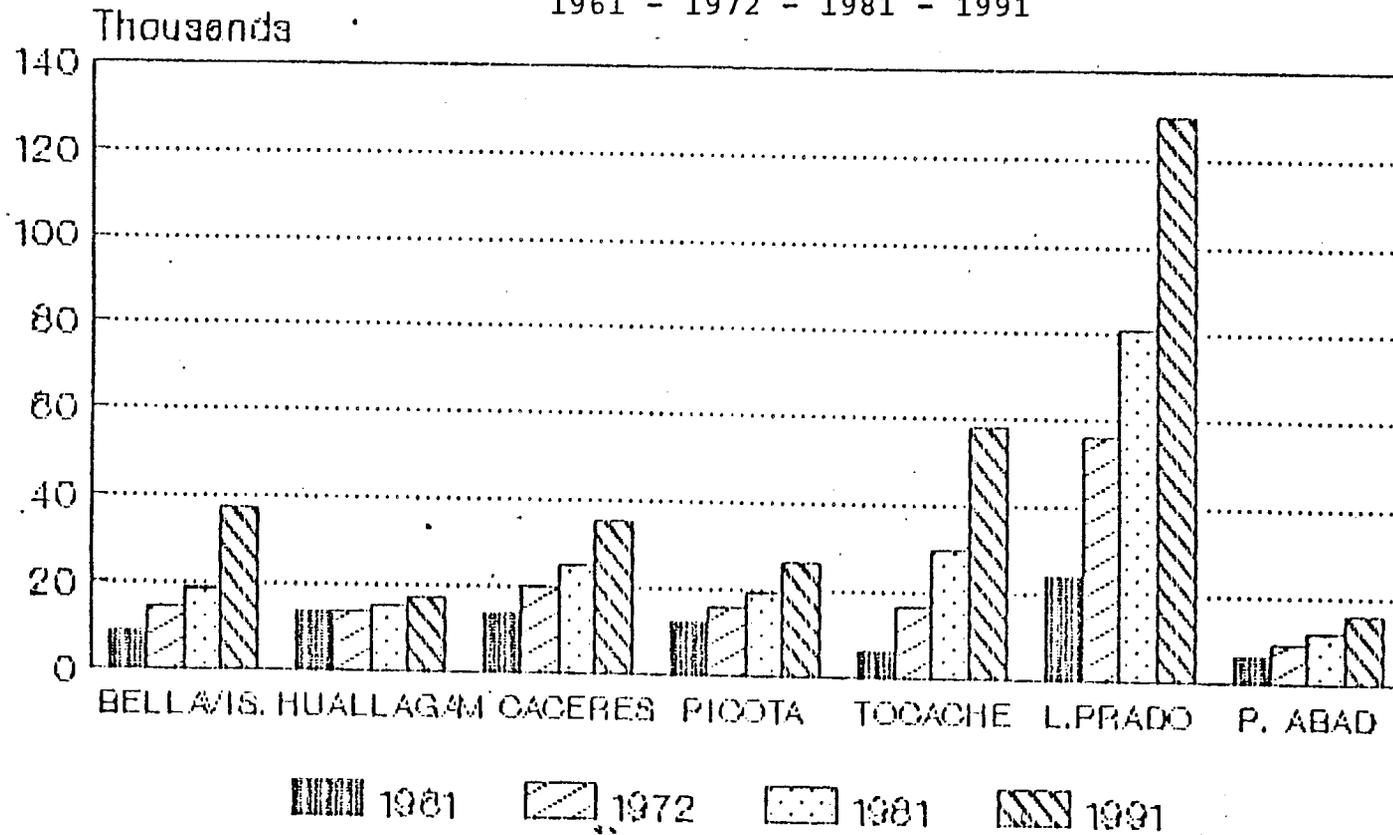
A complete view of the urban concentration could be given by cities with more than 2,000 people; this criterium is not taken in the peruvian census where all the capitals of districts, villages and settlements with more than 100 houses are considered urban. In our analysis we refer firstly to this category (Table 5) considering later mayor cities (Table 6).

In 1940, the urban population represented 38.4% of the HV total. The provinces of Bellavista and Huallaga had more than 50%, but the other five had a mostly rural population. Twenty one years later the provinces of Bellavista (31%) and Huallaga (49%) have reduced the participation of its urban population, but Mariscal Cáceres had above 59%. The other four provinces had a different rural percentages: Picota 45%; Tocache 40%; Leoncio Prado 24% and Padre Abad 25%.

GRAPHIC 4

HUALLAGA VALLEY PROVINCES POPULATION

1961 - 1972 - 1981 - 1991



GRAPHIC 5
HUALLAGA VALLEY POPULATION % IMPORTANCE FOR HUALLAGA AND L. PRADO

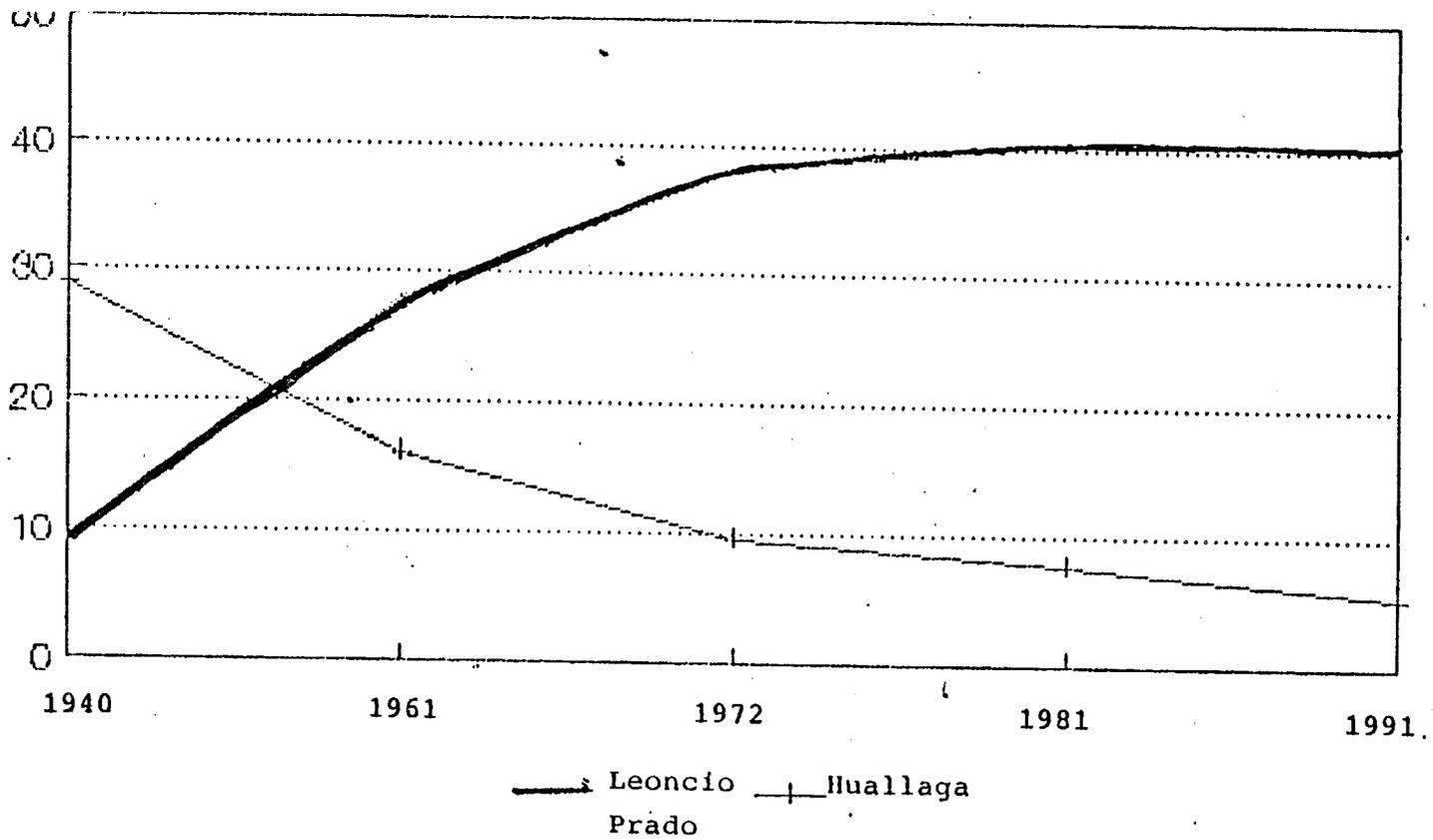


TABLE 8
HUALLAGA VALLEY
TOTAL AND URBAN POPULATION
BETWEEN 1940 AND 1981 AND ESTIMATIONS FOR 1991

Provinces	1940	1961	1972	1981	1991
TOTAL	30500	87983	146480	199790	320600
Urban	11722	34233	65336	85146	162827
% U/T.	38.4	38.4	44.6	42.6	51.0
Bellavista	3023	9221	14889	18851	37150
Urban	1650	2859	7248	6406	16717
% U/T.	54.6	31.0	48.7	34.0	45.0
Huallaga	8745	14118	14055	15361	17650
Urban	4591	6929	7206	9453	9707
% U/T.	52.5	49.1	51.3	61.5	55.0
M. Cáceres	6205	14223	20190	24625	35450
Urban	2860	8498	8655	13475	19498
% U/T.	46.1	59.7	42.9	54.7	55.0
Picota	6272	12796	16198	19475	26400
Urban	1322	5747	11270	9752	15840
% U/T.	21.1	44.9	69.6	50.1	60.0
Tocache	2677	6489	16415	29591	57900
Urban	607	2613	7042	8700	23160
% U/T.	22.7	40.3	42.9	29.4	40.0
L.Prado	2740	24475	55632	80384	129900
Urban	513	5934	18804	33794	71445
% U/T.	18.7	24.2	33.8	42.0	55.0
P.Abad	838	6661	9101	11503	16150
Urban	179	1657	5110	3566	6460
% U/T.	21.4	24.9	56.2	31.0	40.0
Perú					
%Pob.Urb.	35.4	47.4	59.5	64.9	70.3

Source: National Census between 1940 and 1981

CUANTO Estimates 1991.

Between 1961 and 1972 an spectacular increase of the urban population happened in Leoncio Prado province, whose population tripled from 6,000 to more than 18,000. The province of Padre Abad also showed an important increase; but in the valley as a total the urban population continued representing less than 45% until 1981. It is estimated 51%, for 1981 with the same trend in all the provinces of the HV (Table 5).

Cities with more than 2,000 people

Another characteristics of the urban development in the valley is the population increase of cities with more than 2,000 inhabitants (Table 6).

TABLE 6
HV CITIES WITH MORE THAN 2,000 INHABITANTS

Cities	1940	1961	1972	1981	1991*
Bellavista	---	2010	2660	2800	6500
San Pablo	---	---	---	---	4100
Saposoá	3243	4456	5340	7610	7750
Juanjuí	2118	3965	6470	8200	12200
Picota	---	2014	2260	2500	4100
Tocache	---	---	3480	6822	13900
Uchiza	---	---	---	2000	6800
Tingo María	---	5208	13470	15528	46800
Aucayacu	---	---	3910	7744	12800
Aguaytía	---	---	---	---	4200
San Alejandro	---	---	---	---	2100

Cities with 2,000 or more inhabitants compared with urban population

Percentage:	45.7	51.6	57.5	62.5	74.5
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Cities with 2,000 or more inhabitants compared with total population

Percentage:	17.6	20.1	25.7	26.6	37.8
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* CUANTO estimates for 1991

In 1940, only two small towns existed with more than 2,000 people: Saposo (3,243) and Juanjuí (2,118). In 1961 there were already five with Tingo María (5,208), Picota (2,014), and Bellavista (2,010). In 1972, according to the census, seven called medium size cities existed (2,000 to 9,999 residents), besides Tingo María that with more than 13,000, is considered a large city. It is estimated that in 1991, there are four large cities: Tingo María (46,800), Tocache (13,900), Aucayacu (12,800), and Juanjuí (12,200), besides there are other seven medium cities. All together these cities represent the 75% of the urban population and the 38% of the total population (Table 6).

2.4 Economically Active Population

In 1981, 33.7% of the total population of HV were economically active (PEA). This participation is higher in Tocache (38%), Leoncio Prado (36.5%) and Padre Abad (34.8%). In the urban areas the PEA participation (33.3%) is slightly less than in the rural areas (33.9%) (Table 7).

By gender, more than 65% of men are active workers, compared with only 15% of women. In the HV, as well as in other areas of Perú, in 1981 five to fourteen years old children are employed as active workers; as a reference 3.5% of the children population works in Picota and Leoncio Prado; and more than 4% in Mariscal Cáceres and Tocache (7) (Table 7A).

Considering the economic activity in 1981, more than 60% of HV population labors in agriculture, forestry fishing and hunting; 14% are involved in community services; 9% are dedicated mostly to informal retailing and marketing; a 7% are manufacture and construction workers, and close to 3% are involved to transportation, storing, communication and other activities.

TABLE 7

**PERCENT PARTICIPATION IN THE P E A,
BY PROVINCIAL URBAN AND RURAL AREAS. NATIONAL CENSUS, 1981**

PROVINCES	PERCENTAGE PARTICIPATION IN THE P E A		
	TOTAL	URBAN	RURAL
TOTAL HUALLAGA VALLEY	33.7	33.3	33.9
BELLAVISTA	28.1	29.5	27.3
HUALLAGA	30.1	30.5	29.3
M.CACERES	29.6	29.5	29.7
PICOTA	28.1	27.7	28.6
TOCACHE	38.0	39.8	37.3
LEONCIO PRADO	36.5	36.4	36.6
PADRE ABAD	34.8	32.8	35.7

TABLE 7A

**ECONOMICALLY ACTIVE POPULATION BY AGE GROUPS
RELATIVE FIGURES National Census 1981 (7)**

PROVINCES	GROUPS BY AGE			Total
	6 to 14	15 to 64	65 and more	
Huallaga-Bellavista	3.8	92.0	4.2	100.0
M.Cáceres-Tocache	4.3	93.1	2.6	100.0
Picota	3.5	92.2	4.3	100.0
L.Prado	3.5	94.1	2.4	100.0

TABLE 7B

**ECONOMICALLY ACTIVE POPULATION BY ECONOMIC ACTIVITIES
RELATIVE FIGURES National census 1981 (7)**

Provinces	Local	Marketing	Manufac/Utilities	Others	
	Industries	Building	Building		
TOTAL	60.7	8.7	7.4	14.4	8.8
Huallaga-Bellavista	72.7	4.5	7.8	9.8	5.2
M.Cáceres-Tocache	65.1	7.5	8.2	10.9	8.3
Picota	50.3	10.1	8.6	21.1	9.9
Leoncio Prado	54.7	12.7	7.6	15.7	9.3

It is estimated that in 1991, timber exploitation is an other important factor of PEA. Hardwood and other valuable kinds of wood are extracted, such as the "Tomillo", "Pashaco", "Ishpingo", "Cedro Huasca", "Machinga", that are processed in sawmills along the whole year, producing fine wood and plywood highly appreciated by its usage in furniture and constructions in general. Stock farms are widely exploited such as cattle, dairy and pig farms, chicken farms, fisheries, goatish farms and many others (18).

Agro industrial exploitation is very active, given the variety of jungle species, such as cocoa, tobacco, coffee and other tropical products. Even salt (sodium chloride) mines are exploited; in Cachiyacu, Puchcana, Sacanche and Shima considering that salt is scarce in the rest of the Amazon plateau). This year (1991) the Government of Japon has given a financial support to use modern technology for the establishment of paper mills, including a pilot plant (14).

According to local representatives, they are not receiving enough credits from the "Banco Agrario"; that is the reason, they say, why they are unable to substitute the coca exploitation with other crop cultivations (18). The more important crop come from farming: coca, rice, maize (corn), bananas, coffee, yuca, palm (for oil extraction) and tea. Then there are the beans, potatoes, papaya, platano inguri (a nutrition kind of banana) and different citrus plants easily cultivated in the area. It is along the last ten years when the traditional farming has been rapidly substituted by coca plantations, because its prompt and high returns the "narco" activity give to the farmers. In the eighties, the coca cultivated area was estimated in 45,000 hectares. According to Jim Laitty (36) in 1988 existed some 88,000 hectares. An extreme number is given when they say that in 1990 there are more than 300,000 hectares (20).

The economical importance of the coca in the PBI of Perú is estimated to be more than two thousand million dollars per year (21). In section 3.4 of this report, an estimate of the people involved in legal and illegal farming jobs is given.

2.8 Migrant Population: 1961-1972-1981

The migration flow has had a decisive influence in the continuous increase of the valley population. Migration began in 1940 and intensified in the period 1950 to 1960, with the construction of the "Carretera Marginal". Since 1980, the immigration again becomes more important.

A 1981 research of the Foundation for the National Development has shown that in the rural areas of the valley, the percentage of immigrants is so critical, that at least one immigrant lived in nine out of each ten households.

Statistics of Migration 1961 - 1972 - 1981

Available information about immigration in the provinces of the HV are available for the years 1961, 1972 and 1981. At level of provinces the analysis of internal migration trends permits to determine the "attraction" centers, and the "deflection centers".

The results of the 1972 and 1981 National Census show the numerical interchange of people between provinces in the five previous year: were 1'155,000 between 1961 and 1972; 1'424,000 between 1976 and 1981; that is, 8 persons of each one hundred were interprovince migrants in the first period, and 9 in the second one.

A study of AMIDEP and the "Universidad del Pacífico", illustrates the rate of, immigration, the actual number of migrants, and the rates of migration among the provinces of the HV, considering the birth places.

In the Table 8 is a resume of those rates, showing the relative figures for periods between the above mentioned census (17).

The provinces that show a significant positive migration are: Leoncio Prado, Padre Abad, M. Cáceres and Tocache. In 1981, all the provinces have neat positive rates, which clearly shows that the HV is an important attraction center for immigration.

TABLE 8

HUALLAGA VALLEY

RATES OF EMIGRATION AND IMMIGRATION PER PROVINCE

1961 - 1972 - 1981

PROVINCES	1961			1972			1981		
	Emig. Rate	Immig. Rate	Net Rate	Emig. Rate	Immi. Rate	Net Rate	Emig. Rate	Immi Rate	Net Rate
Bellavista/ Huallaga	24.2	15.3	-8.9	47.3	17.6	-29.7	18.9	24.3	5.4
M.Cáceres/ Tocache	10.7	32.9	22.2	20.6	39.8	19.2	15.2	43.6	28.4
Picota *	29.3	9.2	-20.1	26.5	14.6	-11.9	19.1	24.1	5.0
L. Prado	20.6	72.8	52.2	14.3	62.5	48.2	25.2	55.6	30.4
P.Abad**	9.0	44.5	35.5	11.5	36.0	24.5	18.3	23.9	5.6

* The observed percentage refers to the province of San Martín, formerly part of Picota (1981).

** The observed percentage corresponds to the province of Coronel Portillo (1981).

Emigration Rate (T.E.): Portion of those people who were born in the province under Census and they are living in another provinces.

Immigration Rate (T.I.): Portion of those people who were born in another provinces, and actually live in the province under Census.

Source: (17)

The INEI made an analysis of the internal migration among provinces, considering as migratory transfers the relocation of residence from one province to other, that happened in the last lustrum 1976-81 (only five years respect to the permanent residence). Under this criterium, the average annual rates of migration by gender, provinces and age groups, show interesting conclusions. (Table 9).

Firstly, the male immigrants were more numerous than the women, so the male population index is by large, higher than in the national migration level (120 men for each 100 women). The highest migration rates are for 15 to 34 years old people. The reason for the significant proportion of immigrants younger than 5 years old is that the immigrants are mostly young families with small children. Finally, it is interesting to observe that the immigration of people above 55 years old is negative, which could be because the older people prefers to return to their provinces of origin.

TABLE 9

AVERAGE ANNUAL RATES OF MIGRATION IN SOME PROVINCES, BY AGE, IN THE PERIOD 1976 - 1981 (16)

Groups by Age	Bellavis/Huallaga		M. Cáceres/Tocache		L. Prado	
	Emig.	Immig.	Emig.	Immig.	Emig.	Immig.
TOTAL	21.0	31.8	18.0	50.8	33.6	66.4
0 - 4	32.4	68.5	31.9	85.4	73.3	94.7
5 - 14	10.3	15.4	9.4	24.7	19.9	32.8
15 - 25	37.3	30.1	24.3	62.0	29.3	77.4
25 - 34	22.1	55.3	17.0	68.8	30.8	78.7
35 - 44	12.5	24.4	13.4	42.9	25.1	47.7
45 - 54	11.8	18.1	10.2	31.2	20.3	41.7
55 - 64	12.4	11.9	12.5	27.3	22.5	37.9
65 and	12.5	11.7	8.3	22.1	25.3	37.8
Index of Masculinity	95	139	109	159	113	153

2.6. Population of the Valley and the Poverty Map of Perú

References exist to measure the poverty in a country or a geographical area. The Planning National Institute (INP) uses four variables to define Poverty: the wage earning of a working individual, the rate of illiteracy, the availability of drinking water; and the rate of infant mortality. According to these variables, the provinces of the country in 1981 are arranged in five levels, beginning with the poorest. Among the first three categories are one hundred provinces considered the more impoverished of the country, among a total of 153 provinces (2).

The present provinces of Bellavista, Huallaga, Tocache and Mariscal Cáceres are among those one hundred poorest provinces. The income per working person taken a relative index of 100, shows 44 for Bellavista and Huallaga, and an index of 61 for Tocache and Mariscal Cáceres. The rate of illiteracy for the first two provinces is 14%, and for Tocache and Mariscal Cáceres is 13%. The reason why those percentages of illiteracy are under the national average (19.2%) is that the residents of the HV are migrants that arrived with a low level of education (barely under 2 years of elementary school). In 1981 the percentage of homes with drinking water was 26% in Bellavista and Huallaga, and 39% in Tocache and Mariscal Cáceres. The infant mortality was about 120 per thousand (2).

In the provinces of Picota, Leoncio Prado and Padre Abad the level of poverty is 4, close to the average of country.

It is probable that the present poverty indicators could show better levels of prosperity for the population as a whole. Notwithstanding, there is an unfair distribution of wealth in the rich producing coca farming areas, and the exploitations of workers maintains an visible level of poverty. A strong feeling of protest exist against the lack of governmental interest for improving the quality of life of the farming population. It is neccesary to find out reliable programs for the

substitution of coca plantations with a profitable agriculture and to eliminate the illicit marketing of narcotics.

III Results of the Demographic Survey (August - September 1991)

A group of CUANTO demographic surveyors sent from Lima, together with residents of the area, conducted a demographic search in the Huallaga Valley, from August 13 to September 6, taking sample information from resident families in the urban and suburban areas of Bellavista and San Pablo cities (provinces of Bellavista), Saposoa (Huallaga), Juanjuí (Mariscal Cáceres), Picota (Picota), Tocache and Uchiza (Tocache), Tingo María, D.A. Robles, Aucayacu, Naranjillo and Las Palmas (Leoncio Prado) and in San Alejandro (Irazola - Padre Abad).

INEI charts and maps of the cities were used to make a statistical selection of the blocks. In each one, homes were visited for taking information, covering an average sample above 1.5% of residents in each city. In Tocache, Uchiza and some other cities, the maps of INEI were obsolete; instead maps of municipal or other official local sources were used.

In the cities of the HV, 415 homes were surveyed, representing 2160 persons, that is an average of more than 5 person per each home. The larger number of surveyed homes were taken in Tingo María, because this city is the more representative of the valley population; 123 homes with 645 residents were visited in Tingo María. The smallest sample was taken in Irazola, where only 17 homes with 82 people were surveyed. It was not possible to survey Aguaytía, because a serious and continuous confrontation between the residents of this locality and groups of terrorists, which made impossible any surveying, even with local personnel.

In the Annex 3 is the Form used by CUANTO for the demographic survey.

In order to comment the results, the collected information is presented in some cases joining together some cities; for instance Las Palmas, M.D. Beraun and Naranjillo (Luyando) appear together with other cities of Leoncio Prado; Bellavista is presented with San Pablo, and Saposoa with Picota.

In the table 10 the total of households and population (to be used later for analysing) is presented.

TABLE 10
RESULTS OF SURVEYS MADE
IN THE CITIES OF HUALLAGA VALLEY

Provinces	Cities	Estimated Population 1991	Surveyed Homes	Surveyed Population (abs.) (rel.)	
Bellavista	Bellavista	6500	18	102	1.57
	San Pablo	4100	10	61	1.49
Total			28	163	1.53
Huallaga	Saposoa	7750	16	86	1.11
	Picota	4100	11	69	1.68
Total			27	155	1.31
M.Cáceres	Juanjuí	12200	37	188	1.54
Tocache	Tocache	13900	43	202	1.45
	Uchiza	6800	29	117	1.72
L.Prado	Tingo Ma.	46800	123	645	1.38
	Aucayacu	12800	65	337	2.63
Other cities			46	271	
Padre Abad	S.Alejandro	2100	17	82	2.64
Total Sample			415	2160	

In **GRAPHIC 6** and **GRAPHIC 6A** transportation diagrams are shown for the departments of San Martín and Huánuco. In various opportunities, the personnel of CUANTO were exacted to pay "CUPOS" (illegal taxes).

3.1. General Characteristics of the Population

Two important demographic characteristics to consider are population per age and gender. In fact, the evolution of the volumen of population of any place depends, to a great extend, on the balance between genders and age of people. In a biologically normal population, both sexes are equally represented in numbers. But, in small developments this balance could become altered due to selective migration.

In all the cities of the HV, the younger than 1 year represent the 2.6% of the total population, and more boys than girls are born, given an index of masculinity of 115 men per each 100 women. The population of 1 to 4 years old children comes to be 8.2%; in this and olders groups that masculinity index changes slightly, due to immigration of new families arriving with children (Table 11).

Population under 5 years old represents the highest level of mortality and morbidity. Its magnitute demands the need to implement nutritional programs and improving the health of mothers and children.

The children population between 5 and 14 years old, who are required to receive compulsory school education according to the Peruvian Constitution, represents 25.5% of the total. Younger than 4 years old children makes more than third of the total (36.3%), which shows that the valley has a "young population". At national level this index is slightly higher (37.3%).

The workforce (15 to 64 years old) has a high representation in the cities of the

valley (61.2%). At national level it is lower (59%). The HV "third age" population, makes 2.5%; at national level they represent 3.8%.

The masculinity index for the population as a whole is 96 men for each 100 women, because, residents explained to the surveyors, the family heads and their sons are gone "to the fields to work in agricultural jobs". The Table 11 presents the population distribution by age and gender in the valley.

TABLE 11
HUALLAGA VALLEY CITIES *
POPULATION BY GROUPS OF AGE
RELATIVE CIPHERS

GROUPS BY AGE						
Cities	-1	1-4	5-14	15-64	65 and +	Total
TOTAL	2.6	8.2	25.5	61.2	2.5	100
Men	2.8	7.8	26.7	59.9	2.8	100
Women	2.4	8.6	24.2	62.6	2.2	100
Cities						
Bellavista/ San Pablo Saposoia/	2.5	9.2	20.9	62.0	5.5	100
Picota	6.5	9.0	21.3	61.3	1.9	100
Juanjuí	3.2	9.0	20.2	66.0	1.6	100
Tocache	3.5	11.4	23.3	59.4	2.5	100
Uchiza	3.4	9.4	16.2	69.2	1.7	100
Tingo María	1.7	7.1	29.1	58.8	3.3	100
Aucayacu	3.0	10.4	30.0	54.5	2.1	100
L.Prado	1.1	5.9	30.3	61.6	1.1	100
S.Alejandro	1.2	0.0	9.8	86.6	2.4	100

(*) Survey made by CUANTO S.A. (August - September 1991)

Family Relationships

Heads of family in the valley homes are also women. In fact, in 12 of each 100 homes, the family heads are women.

Nuclear homes (father, mother and children living together) are predominant in the HV: 82.6%.

Extended homes (nuclear plus relatives) represent the 15.2% and the so called "agregated homes" 2.2%.

The scarcity of nuclear homes in many cities is notorious because the shortage of housing and families are accommodated with relatives, or lodged temporarily.

School attendance and educational levels

39 out of each 100 persons older than 5 years, receive regular school education. There is some fluctuation, from a low 27% (Juanjui) up to 48% (Tingo María) (Table 12).

The level of education of residents in the valley cities is above the national average. 46% received Elementary School education, and the illiteracy rate (5%) is one of the lowest in the country (11%).

In Metropolitan Lima the illiteracy rate is 2%, similar to the percentage observed in Uchiza (2%), Tingo María (3.2%), Aucayacu (3.1%) and Juanjui (3%) (Table 12)

TABLE 12

**HUALLAGA VALLEY CITIES (*)
SCHOOL ATTENDANCE OF 8 YEARS AND OLDER POPULATION**

SCHOOL ATTENDANCE

Cities	Attendance	Absence	TOTAL
TOTAL	39	61	100
Bellavista/ San Pablo	30	70	100
Saposoa/ Picota	34	66	100
Juanjuí	27	73	100
Tocache	35	65	100
Uchiza	24	76	100
Tingo María	45	55	100
Aucayacu	43	57	100
Otras L.Prado	44	56	100
San Alejandro	28	72	100

(*) Survey made by CUANTO S.A. (August - September 1991).

TABLE 13

**SCHOOL ATTENDANCE OF POPULATION OLDER THAN FIVE YEARS
BY EDUCATIONAL LEVELS**

Cities	Un educated	Prim. School	Sec. School	Univ.	Illiter.	TOTAL
TOTAL	1.4	45.5	38.2	9.8	5.1	100
Bellavista/ San Pablo	0.7	40.3	45.1	7.0	6.9	100
Saposoa/ Picota	0.8	61.8	22.9	9.9	4.6	100
Juanjuí	0.6	31.5	52.1	12.7	3.0	100
Tocache	0.0	47.1	35.5	11.6	5.8	100
Uchiza	0.0	38.2	48.0	11.8	2.0	100
Tingo María	2.0	42.2	38.4	14.1	3.2	100
Aucayacu	1.4	51.4	36.6	7.5	3.1	100
Otras L.Prado	1.2	54.0	32.1	2.0	10.7	100
San Alejandro	6.2	38.3	39.5	3.7	12.3	100

(*) Survey made by CUANTO S.A. (August - September 1991)

3.2 Migrant population

Forms used for the demographic survey considers the place of birth. It was interesting to find out that at least one migrant person lived in every house hold of cities such as Tingo María, Dámaso Beraún and San Alejandro. Nearly the same fact happens in other cities, such as Aucayacu (95%), Picota (98%) and Uchiza (88%). All together, an average 90% of homes have at least one migrant guest (Table 14). These figures are indicators of the migration intensity.

An important indicator of the influence of migration is given by the surveyed people classified as natives or as migrants. As a whole, 60% are natives and 40% are migrants. The more important centers for migration are: Uchiza, where 7 of each 10 persons are immigrants, 55% of them arrived between 1986 and 1991; Aucayacu, where 53% are migrants, most of them arrived during the last 5 years; in Tocache 47% are migrants and near 40% of them arrived in the last years. In the particular case of Bellavista and San Pablo, only 25% are migrants, because most of the migration is in transit to rural zones (Table 14A).

It is notorius the large flow of migrants toward the cities of Aucayacu (11%), Tocache (16%), Saposoá and Picota (19%), Uchiza (22%), and Bellavista - San Pablo (24%). These figures about immigration to urban areas, implies a parallel significative migration toward the rural area.

The places of birth are presented in Table 14A classified by geographical regions: Coast, Highlands, Jungle.

Most of the inmigrants come from jungle provinces (such as those of Ucayali and Amazon Basin) (64%); but in Uchiza (43%) proceed from the highlands (43%) and in Tocache (39%) proceed from the Coast (Table 14A).

TABLE 14

CHARACTERISTICS OF IMIGRANTS TO THE HV CITIES

(August - September 1991) *

CHARACTERISTICS OF MIGRANTS

CITIES	HOMES	HOUSE HOLDS (1)	POPULATION		PERIODS OF ARRIVAL		
			MIGRANTS	NATIVE	LESS THAN 1 YEAR	1to5	MORE THAN 5
TOTAL	415	90.2	39.7	60.3	11.1	14.9	74.0
Bellavista/S.Pablo	28	67.8	24.6	75.5	23.8	20.3	55.9
Saposoia and Picota	27	90.8	21.6	78.4	19.0	23.8	57.2
Juanjui	37	61.1	36.2	63.8	8.6	15.7	75.7
Tocache	43	89.7	47.0	53.0	16.1	24.7	59.2
Uchiza	29	88.2	70.1	29.9	22.0	32.9	45.1
Tingo Maria	123	100.0	39.2	60.8	7.9	10.3	81.8
Aucayacu	65	92.9	52.8	47.2	11.2	10.6	78.2
Others L. Prado	46	97.5	45.3	54.8	3.5	0.8	95.7
San Alejandro	17	100.0	28.0	72.0	0.0	21.7	78.3

REASONS FOR MIGRATION

CITIES	JOBS	LOOKING FOR LAND	FAMILY REASON	OTHER REASONS	TOTAL
Bellavista/San Pablo	47.9	4.2	48.0	0.0	100.0
Saposoia and Picota	21.1	3.9	75.1	0.0	100.0
Juanjui	52.9	0.0	32.8	14.3	100.0
Tocache	48.4	0.0	40.9	10.7	100.0
Uchiza	69.5	0.0	30.5	0.0	100.0
Tingo Maria	44.3	1.2	53.7	0.8	100.0
Aucayacu	42.5	2.8	54.2	0.5	100.0
Otras Leoncio Prado	31.5	22.5	43.6	2.4	100.0
San Alejandro	34.8	8.7	56.5	0.0	100.0

* Survey made by CUANTO S.A.

(1) Percentage of households where at least lives one migrant.

TABLE 14A

IMMIGRANTS. CHARACTERISTICS IN THE HV CITIES

(August - September 1991) *

P E R C E N T A G E

BY REGIONS OF ORIGEN

CITIES	COAST	HIGHLAND	JUNGLE	TOTAL
TOTAL CITIES	20.1	16.0	63.9	100.0
Bellavista/San Pablo	27.5	16.7	55.8	100.0
Saposoia and Picota	12.5	21.5	66.0	100.0
Juanjui	14.7	1.5	83.8	100.0
Tocache	38.9	18.9	42.2	100.0
Uchiza	26.8	42.7	30.5	100.0
Tingo Maria	20.6	12.3	67.1	100.0
Aucayacu	14.0	18.5	67.5	100.0
Otras Leoncio Prado	16.1	19.3	64.6	100.0
San Alejandro	4.3	0.0	95.7	100.0

AGES OF MIGRANTS

	-15 years	15-19 years	20-29 years	30-39 years	More than 40 years
TOTAL CITIES	32.6	13.4	24.7	15.1	14.2
Bellavista/San Pablo	36.7	7.5	36.7	10.0	9.1
Saposoia and Picota	54.1	10.1	17.6	10.1	8.1
Juanjui	27.9	10.3	27.9	13.2	20.7
Tocache	26.3	25.3	23.2	12.6	12.6
Uchiza	38.3	21.0	28.4	7.4	4.9
Tingo Maria	27.2	11.8	23.2	17.3	20.5
Aucayacu	43.3	10.7	20.8	13.5	11.7
Otras Leoncio Prado	14.2	14.0	33.1	25.7	13.0
San Alejandro	34.8	17.4	17.4	26.1	4.3

* Survey made by CUANTO S.A.

About age, it is seen that in the HV for each three persons, one is younger than 15 years (33%) and the larger percentage is of people between 15 to 39 years old (53%). The fact that in Aucayacu, Saposoa and Picota more than 43% of the population are younger than 15 years old, could be explained by the significant number of them (younger than 15 years) arriving by their own, without their parents or relatives. (Table 14A).

3.3 Economically Active Population (PEA)

The PEA of HV represents a significant percentage (41%) of the population. In fact, service activities and small industries are family businesses particularly retailing, restaurants and bars. Uchiza shows the higher PEA with a 62% because most of the population are committed in the workforce, where seven of each ten persons are 15 to 64 years old. In the other end Tingo María and Aucayacu, with a PEA of 36% are close to the National Average (37%) (Table 15).

Considering the kind of economic activity, the PEA is mostly involved in the Service Sector (40.4%), including the large proportions of people which works in Public Offices, Private Education, Restaurants, Bars, among others. In Saposoa, Picota, Luyando and Dámaso Beraún, the main participation is in agriculture, animal raising and fishing. (Table 15).

3.4. Households and Utilities

Number of persons per household

Households were classified according to residents numbers; it was found that considering the cities as a whole, the larger household representativity was for families with 4 to 6 members (61%).

TABLE 15

IMMIGRANTS CHARACTERISTICS IN THE HV CITIES
(August - September 1991) *

PEA PERCENT DISTRIBUTION

CITIES	TOTAL POPULATION	P E A	NOT PEA	TOTAL
TOTAL	2160	40.6	59.4	100.0
Bellavista/S.Pablo	163	42.9	57.1	100.0
Saposoá y Picota	155	39.3	60.7	100.0
Juanjui	188	38.3	61.7	100.0
Tocache	202	44.6	55.4	100.0
Uchiza	117	61.5	38.5	100.0
Tingo Maria	645	36.0	64.0	100.0
Aucayacu	337	36.0	64.0	100.0
Otras L.PRADO	271	39.5	60.5	100.0
San Alejandro	82	63.4	36.6	100.0

F I E L D S O F P E A

CITIES	AGRI- CULTURE	LOGGING	MAR- KETING	MANUFAC- TURE	UTI- LITIES	JOBLESS	TOTAL
TOTAL	28.5	1.3	27.3	1.3	40.5	1.3	100.0
Bellavista/S.Pablo	42.9	0.0	20.0	0.0	37.1	0.0	100.0
Saposoá y Picota	62.3	0.0	4.9	3.3	29.5	0.0	100.0
Juanjui	29.2	1.4	30.6	0.0	38.9	0.0	100.0
Tocache	23.3	0.0	33.3	2.2	41.1	0.0	100.0
Uchiza	15.3	0.0	27.8	5.6	51.4	0.0	100.0
Tingo Maria	11.6	0.9	36.6	1.3	49.6	0.0	100.0
Aucayacu	22.3	0.0	37.2	0.0	38.8	1.7	100.0
Otras L.PRADO	57.0	0.9	15.0	0.0	26.2	0.9	100.0
San Alejandro	26.9	13.5	7.7	0.0	36.5	15.4	100.0

* CUANTO Survey

HOUSEHOLDS ACCORDING TO NUMBER OF ITS MEMBERS

CITIES	1 to 3 members	4 to 6 members	7 to 9 members	10 or more members
TOTAL	19.5	61.4	12.3	5.3
Bellavista/ S. Pablo	21.4	42.9	21.4	14.3
Saposoa/Picota	18.5	44.4	29.6	7.5
Juanjuí	32.4	48.6	10.8	8.2
Tocache	25.6	72.1	2.3	0
Uchiza	31.0	69.0	0	0
Tingo María	16.3	65.9	13.8	4.1
Aucayacu	21.5	57.0	13.8	7.7
Other L.P.	6.5	73.9	13.0	6.6

HOUSEHOLDS UTILITIES

Most of family homes has residence in their own private households (71.5%); but in Uchiza and Tocache, ownership is 48% and 54% only (**Table 16**).

Not all the HV population have available drinking water, sewerage and electric power commodities. Public drinking water utilities are available to only 32.8% of households. Juanjuí, Saposoa, Picota, Tingo María, Bellavista and San Pablo population are better served than cities like Tocache, Uchiza, Aucayacu and San Alejandro, where people have to take water from wells or from rivers. 77% of population have electricity mostly for electric lighting, but in the smaller cities this percentage is lower; such is the case of Tocache (63%), Saposoa and Picota (67%), Luyando and Dámaso Beraún (41.3%) and San Alejandro (17.6%).

TABLE 16
HOUSEHOLDS AND AVAILABLE UTILITIES IN THE HV.

CITIES	OWNERSHIP			UTILITIES		
	Owned	Rented	Other	Drinking Water	Seve Rage	Electric Light
TOTAL	71.5	23.7	4.8	32.8	45.3	76.6
Bellavista/ S. Pablo	71.4	25.0	3.6	60.7	39.3	89.3
Saposoa/ Picota	81.5	11.1	7.4	70.4	29.6	66.7
Juanjuí	78.4	18.9	2.7	94.6	78.4	27.3
Tocache	53.5	37.2	9.3	*	30.2	62.8
Uchiza	48.3	51.7	0.0	*	75.9	89.7
Tingo María	79.7	13.8	6.5	66.7	67.5	97.6
Aucayacu	58.5	32.3	9.2	*	27.7	90.8
Otr.L.Prado	91.3	8.7	0.0	15.2	19.6	41.3
S.Alejandro	94.1	5.9	0.0	*	35.3	17.6

* Most of homes use well or river water. In others, water is sold (3 gallons per S/.1.00)

Source: CUANTO Survey

The main reason for the poor health standards in the HV is the unavailability of basic sanitary utilities.

IV FIRST HAND TESTIMONIES RECEIVED BY CUANTO SURVEYORS

The narrative as expressed by the protagonists of this survey is presented in an Annex to this report. In this section, a resume of anecdotes and happenings experienced by CUANTO surveying personnel in this convulsed region of Perú is presented.

Confidences from residents were received while traveling either by plane or cars,

both from natives and immigrants in the HV. Testimonies were also received in the surveyed households of the cities. More than once they asked not to be identified.

An interesting fact is the difference of attitude between the people of Bellavista, Huallaga, Picota and Mariscal Cáceres and those of Tocache, Leoncio Prado and Padre Abad. The former accept with calm and resignation the convulsed situation, while in the last three provinces, a climate of tension and discomfort is notorious, the people unwillingly accept the situation, with a "what can we do" protest and "they feel fear to react even in defense of honest people"

People close to the legal agriculture (non-coca) expressed repetitively that they were suffering critically. Even "cocaleros", (coca farmers) complained that the business has been reduced sharply after the main international center for processing and marketing the drug, the "Cartel of Medellín", was dismantled and "of course" also after the "Army repression of narcoterrorism". "Now it is different" they say "compared with the goodtimes when the economy was very dynamic".

The following were other commentaries:

- a) About the neglect the farmers are suffering from Governmental Agencies; such is the case of ECASA, the Governmental Marketing Agency, which does not reimburse the rice delivered to this Agency, or the similar ENCI case about corn. The delay for paying the delivered rice, corn or tobacco without considering the huge inflation cripples their economy. They also complained against the same Ecasa, that authoratively fixed amounts and dates for receiving tobacco bales, without collecting them accordingly, while the unsheltered bundles were damaged by the weather, waiting long periods before the agency condescended to collect the products.
- b) Because the incompetence of Governmental Agencies, credits and materials are not available in time in detriment and damage of the agriculture.

- c) An unfair policy for fixing prices under the real cost of production, in detriment of farmers economy; consequently they are not able to pay in time to the Agrarian Bank and everybody loses: The "Agrarian Bank" can not recuperate heavy loans; the farmers lose credit and the legal agriculture is seriously constrained.
- d) The bad or null maintenance of roads restrains the access to markets particularly in rainy seasons;
- e) The continuous raise of freight rates as well as fuels and spare parts affect the economy and consequently the development of the area.

Those and other factors damage the competitiveness of HV producers (not the "cocaleros"); the prices of their products become too expensive to compete in Lima and other markets.

Notwithstanding those many inconveniences, farmers continue stoically farming the same products, but only for self consumption, and because they want to be in legal business and compensate their losses carrying out other activities such as commerce and transportation with the hope that things will get better in agriculture.

It is frequent to observe that younger family members save to buy three wheel motorcicles for public transportation wich procure them some additional earnings more rentable than formal agriculture. People with more means, buy motor cars, station wagons or trucks, for passengers or cargo transportation, connecting towns and cities.

Municipal elections

The last elections (August 1991) developed normally in most of the localities for electing local authorities, with a notorious people acceptance for electing their own authorities.

Difficulties for the sample survey

From Lima, Mr. Julio Céspedes Asencio was commissioned as supervisor of the visiting and surveying operations of the cities of Bellavista, Huallaga, Mariscal Cáceres and Picota, in August 1991. Mr. Gunther Garay Vásquez, resident of the area was the second in charge.

Rosalvina Florez Artola and Pilar Tello Rosas were in charge of the provinces of Tocache, Leoncio Prado and Padre Abad survey. Also cooperated with them Isabel Retis, Víctor Hidalgo, Otilia Calvo, Dr. María Ormachea, Luis Bogarín and Pedro Arévalo.

From the beginning, it was realized that the narcoterrorism and the social convulsion represented not only a source of difficult problems, but real dangers to the surveying personnel. It is fair to give recognition to those persons who willingly cooperated with our teams (see annexes) facilitating the traveling and making possible the completion of their job, overcoming problems in Tocache, Uchiza and Aucayacu. It must be mentioned that in all moments surveyors were under some apprehension and anxiety developed by the permanent climate of insecurity and risk.

The shortage of lodging (not hotels) in some cities like San Pablo and Picota made necessary various trips to survey them. Bellavista on the other hand, had good lodging and transportation facilities, and above all, security.

Some goods and services prices

Even if the main purpose of the survey was not to collect information about local prices; CUANTO teams had no difficulty in finding out prices of goods and services, following CUANTO general procedures for statistical surveying. In the

next table information about the family basket in two provinces are presented, only as a sample:

GOODS AND SERVICES PRICES
(Second August fortnight averages)

	Bellavista	Tocache
	S/.	S/.
Menu price	2.00	
Propane (gas)		15.00 - 17.00
Soft drinks middle size	0.50	0.50
Beer 1 liter	2.00	1.80
Urban Transportation	0.50	
Chicken Kg.	2.99	3.00
Eggs dozen	1.00	1.00
Carrots Kg.	0.80	
Tomato Kg.	0.80	
Rice Kg.	0.50	
Fish Kg.	2.50	
Sweet potatoes Kg.	0.15	
Potatoes Kg.	0.35	
Meat Kg.	3.00	
Milk Bottle	0.80	
Jeans pants Unit	25.00	
Sneakers Adult	50.00	
Dolar exchange	0.78	0.70
	0.79	0.73

Other prices are presented in the Annexes.

V Population estimate for 1991

In 1983, INE estimated the population at national level for 1990 considering departments, provinces and districts. For the Huallaga Valley evaluated a population of 288,093 with an annual increase rate of 4.1%.

In November 1990, INEI made a new estimate, only at national level, with 80,000 inhabitants less, without any detail at provincial and district levels.

Taking as reference the new total for 1990, the "Consejo Nacional de Población" (CNP) made a projection for 1991 at department level; which was used by CUANTO as an initial estimate for province and district population, arriving to 282,952 inhabitants, with a 3.5% of annual increase rate.

Independently to the previous estimates and considering necessary to make a revision of those figures, CUANTO used other practical and reliable approaches, taken in consideration important sources such as recently updated maps and charts of the HV, as well as reliable data existing in administrative sources. With a methodology explained later, CUANTO estimates that the H.V. population is 320,000. Distribution at district level is presented in (Table 2).

CUANTO used data from reliable administrative sources such as School Registers (Ministry of Education), Registers of less than one year old children and the real number of vaccinated children (Ministry of Health). Birth and death records considered unreliable by the municipal authorities, were not used (because registration omissions were above 40%, due to the lack of education and responsibility of parents, the distances from rural households to the cities, and the inefficiency of bureaucrats).

Observing the notorious modifications of the urban areas shown in available and

reliable updated maps and charts, CUANTO used them as important references for making the estimates.

The methodology followed by CUANTO was as follows:

- a) Considering the number of registered students in 1989 for all the provinces, initially assumed that the school population is 27% of the total; and then that it could come to a high as 32% of total population. The average of the calculated results of both assumptions gave 330,588 for 1989. With this figure, the mean rate of annual increase was found for the period 1981/1989, giving a projection for 1991. Adding the results at provincial level, a 1991 population of 376,087 was evaluated for the HV (Table 17).
- b) The available information of the 1991 elections also was used, considering that the electors, older than 18 years old represents 39% to 48% of the population in the area. Under this two extreme suppositions, the provinces population was estimated, given a mean value of 339,650 (Table 17).
- c) Using the data of the Ministry of Health about children with less than 1 year and considering the two extreme suppositions that they represent either 3.2% or 3.8% of the total population, and taking the average of the resulting calculations, the HV population at provincial level was calculated to be 319,320 (Table 17).
- d) Because the average 345,000 of those results (a,b and c) was different to the number given by local authorities in about 11%, CUANTO decided for a new loaded average, with a double coefficient for the local estimates; this way, and always working at provincial level,

TABLE 17
POPULATION ESTIMATED USING ADMINISTRATIVE DATA

I.- SCHOOL REGISTRATION 1989

PROVINCES	POPULATION	SCHOOL		ATTENDANCE		ANNUAL	ALTERNATI
	1981 CENSUS	TOTAL 1989 (1)	27%	32%	AVERAGE	RATE 1981/89	ESTIMATE 1 1991
TOTAL	199790	96823	358604	302572	330588	6.49	376087
BELLAVISTA	18851	11620	43037	36313	39675	9.75	47787
HUALLAGA	15361	5120	18963	16060	17481	1.63	18056
M. CACERES	24625	12740	47185	39813	43499	7.37	50148
PICOTA	19475	9682	35859	30256	33058	6.84	37733
TOCACHE	29591	16060	59481	50188	54834	8.02	63978
L. PRADO	80384	36200	134074	113125	123600	5.53	137635
PADRE ABAD	11503	5401	20004	16878	18441	6.08	20750

II.- ELECTORATE REGISTER

PROVINCES	ALTERNATIVES			ALTERNATIVE
	REGISTERED	39%	48%	ESTIMATE 2 1991
TOTAL	146166	374785	304513	339649
BELLAVISTA	16324	41856	34008	37932
HUALLAGA	9928	25455	20682	23069
M. CACERES	19349	49612	40310	44961
PICOTA	13561	34772	28253	31513
TOCACHE	25734	65984	53612	59798
L. PRADO	53403	136929	111255	124092
PADRE ABAD	7869	20176	16393	18285

III.- VACCINATION REGISTER (CHILDREN < 1 YEAR OLD)

PROVINCES	HEALTH			POPULAT. TO	ESTIMATED
	MINIST. 1991	3.2%	3.8%	ALTERN. 3 AVERAGE 1991	POPULATIO 1991
TOTAL	11381	355656	299500	319321	308364
BELLAVISTA	1100	34375	28947	31661	36149
HUALLAGA	419	13094	11026	12060	17586
M. CACERES	1269	39656	33398	36525	31247
PICOTA *	960	30000	25253	25263	23806
TOCACHE *	2387	74594	62806	62816	55740
L. PRADO	4650	145313	122367	133840	128958
PADRE ABAD	596	18625	15604	17155	14878

* The minimum rate instead the average was considered

CUANTO arrived to an estimated population of 320,000 with 4.8% annual rate of increase for the last ten years (Table 17).

- e) At district level also two approaches were taken: first, given priority to the available information of the area; second, keeping the relative percentage of pregnant women in each district compared to the similar provincial figure. This relation was compared with analogous relation of the total population taken from the 1981 Census finding a similar correlation (Table 17).

To estimate the population of the Leoncio Prado province districts, the percent distribution estimated by the local Agrarian Statistic Office was taken in account, because it was consistent with a recent survey (18).

The figures of this analysis are presented in the Table 2, together with other official estimates for the years 1940 - 1961 - 1972 - 1981 - 1990 and 1991.

8.1 Assessment of persons occupied in agricultural jobs in the HV

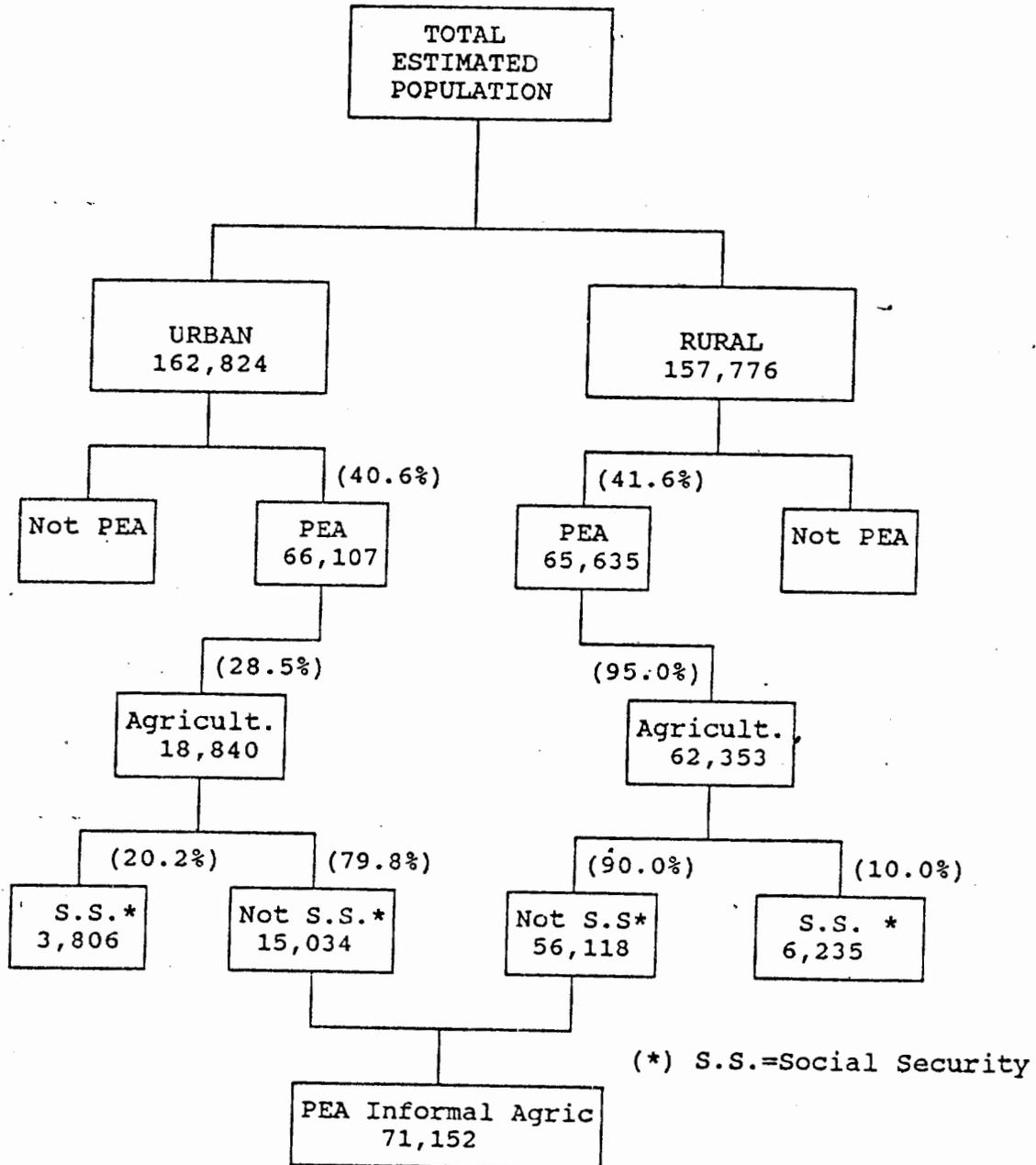
In practical terms, demographic and occupancy information available for recent years does not exist. CUANTO survey has made possible to make an estimate of the current population of the HV. Only at urban level some characteristics were surveyed such as gender, age, educational standing, employment, households situation and public utilities.

To evaluate the population dedicated to coca farming, it was necessary to make various considerations:

A 1988 study of HV (36) states that "the quest for eradicating the coca leaf so far has been unsuccessful and looks likely to be in further expansion", and estimates

GRAPHIC 7

ESTIMATION OF INFORMAL AGRICULTURAL PEA
1991



that 33,300 persons are dedicated to coca farming, representing 67% of the HV PEA (economically active population of the valley), considering that the PEA rate is growing at a 13.5% annual rate in the 1981 - 1988 period.

CUANTO considers that the number of people committed to the legal or illegal farming of coca is much larger. The above mentioned research assume that the PEA per family is 1.35% considering that wives are totally engaged in "agricultural jobs". CUANTO disagrees, because wives are mostly devoted to her domestic duties.

The point of the view of CUANTO is that the illegal PEA agriculture is mostly conformed by workers without Social Security, representing 90% of the total population compared with 80% for urban population (without Social Security).

The 40% of the HV urban population are PEA (66,107 persons). CUANTO assumes 41.6% (65,635) for the rural participation. This percentage, slightly higher, has been estimated considering the 1981 Census figures.

The results of the demographic survey of urban areas also show that 20% of the PEA involved in agroindustry do not have Social Security; in the rural areas the situation is worse, possibly 90% are not covered by the Social Security system, therefore they represent a potencial population prone to be engaged in illegal agriculture (say coca).

Considering this analysis, scarcely more than 71,000 persons of the PEA in agriculture are committed to illegal farming in the HV.

5.2 Coca cultivated area in reference to the agriculture informal PEA

According to the studies of Figueroa, A. and Matuk, F (36), the hypothesis of

Bedoya and Verdera that "coca farming require 125 days wages per hectarea", is accepted.

Using its own evaluation of the HV informal agricultural PEA (71,000 farmers) and the Bedoya and Verdera hypothesis, it is possible to find that the probable coca farming area could be between 1,000 and 113,600 hectares as explained in the following two alternatives:

In a calendar year, a farmer labors an average of 250 days (discounting 115 saturdays, sundays and holidays from 365).

The alternative A considers that 20% of those 250 days are dedicated to formal farming jobs, and the 80% are bind to informal agriculture (coca). The 20% is justified because farmers need to produce edibles and victuals for home consumption and also because such an exertion justifies, if only in appearance that they are eandeavored in formal agriculture.

The real number of days involved in farming could become 200, and in accordance with the above mentioned hypothesis (that 125 days per year are needed to cultivation of one hectare) one farmer can cultivate 1.6 hectares of coca per year ($200/125=1.6$). Hence the work force of 71,000 farmers should be working some 113,600 hectares.

The alternative B considers that each farmer dedicates only 50% of his labor days to work in the coca plantations. Applying similar reasoning, the total of coca plantations should covers 71,000 hectares.

Under the extreme assumption that the farmer could dedicate his whole working time to coca plantation (which it is not the case), the extension of coca fields, on the basis of the same hypothesis, should cover a theoretic maximum of 142,000

hectares in the HV.

8.3. Districts of Cholón and Monzón

Some characteristics of Cholón and Monzón districts are given; in fact, by geographic considerations most of the area of the Monzón district as well as part of the district of Cholón (La Morada) belong to the LHV jungle.

District of Cholón

In 1991, Cholón is one of the three districts that belongs to the Marañón Province, situated in the Chavin Region. Its creation dates to October 21, 1912; its capital is San Pedro de Chonta, situated at 2,750 m.a.s.l.; it has an area of 4.010.33 sq.km.; one part of its territory belongs to the Andean highlands and the other (La Morada) to the LHV jungle.

In the last census of 1981 its population was found to be 4,961, even if only 175 lived in urban area. Cholón presented a high index of masculinity, close to 122 men per each 100 women. The 30% of its population was illiterate. The total PEA is close to 35% of the population, and in the rural area the working population is 1,700 from a total of 4,786. More than 80% of its economic active population is dedicated to agriculture.

At June 30, 1991 the estimated population was 5,100 (21). Considering the same proportion of the 1981 PEA to the present year 1,800 people should represent the PEA of Cholón.

District of Monzón

The district of Monzón is situated in the Huamalies Province, that belongs to the

Andrés Avelino Cáceres Region. Created on January 2nd, 1857, it has an area of 1,521.39 sq.km.; its capital is the village of Monzón, situated at 1,800 m.a.s.l. in the Andean Sierra.

According to the last census (1981), Monzón had a population of 10,725, and 1,986 of them living in urban areas. The index of masculinity was high with 131 men per each 100 women. The 30% of its population was illiterate; its PEA was close to 38.5% of total and in the rural area were 3,374 farmers, that is 39% of total. More than 77% of its economic active population was dedicated to agriculture.

In June 30, 1991 Monzón district counts with an estimated population of 12,300 and its PEA would be close to 4,800.

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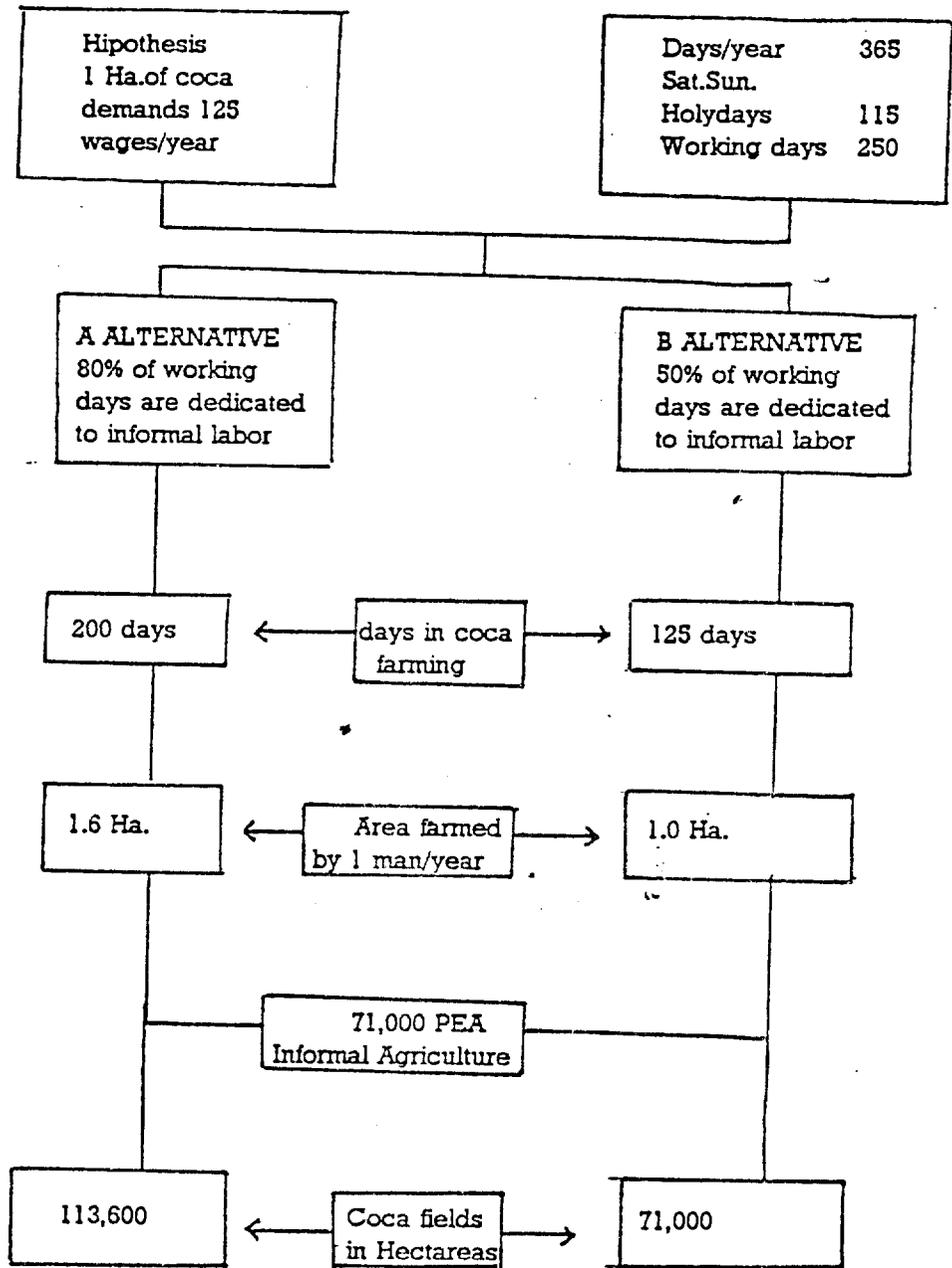
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ANNEXES

GRAPHIC 8

COCA CULTIVATED HECTARES ESTIMATED
ON THE BASIS OF THE INFORMAL AGRICULTURE, PEA
(CUANTO ESTIMATE, 1991)





Presidencia del Consejo de Ministros

Consejo Nacional de Población

OFICIO Nº 229-91-CNP/P.-

Lima, 02 de agosto de 1991

Señor Doctor
RICHARD WEBB
Secretario General
del Consejo Directivo
CUANTO S.A.
Presenta.-

Estimado Dr. Webb:

Me es muy grato dar respuesta a su carta del 30 de julio, por la cual solicita el auspicio del Consejo Nacional de Población para la Encuesta Demográfica en el Valle del Huallaga. Conocedores de la alta calidad técnica de CUANTO S.A. y el de sus equipos de investigación, y dada la importancia del estudio, - otorgamos nuestro auspicio a dicha actividad. Le agradecemos asimismo su ofrecimiento de entregar al Consejo Nacional de Población los resultados de dicha investigación, para un análisis posterior.

Sin otro particular y deseándole éxito en su investigación, le saluda.

Atentamente,



Carlos B. Aramburu
Dr. Carlos B. Aramburu I. de R.
Presidente del Consejo Nacional de Población

PERSONAL REPORT ON THE DEMOGRAPHIC SURVEY
OF THE PROVINCES OF BELLAVISTA, HUALLAGA
MARISCAL CACERES AND PICOTA
(AUGUST 4-23-1991)

Julio Céspedes

The following are personal impressions gathered in the process of carrying out the survey:

1.- The population of the rural areas is having a difficult time because agricultural conditions are bad. State agencies rarely follow their commitments. For example, the agency ECASA has yet to pay the already collected corn. The same is true for tobacco growers. These conditions invite farmers to look for a more profitable alternatives.

2.- Also, the Agrarian Bank has a decline in its lending capacity to farmers. This is due not only to the shortage of funds at the bank, but also to the poor profitability of corn.

3.- In conversations with inhabitants of cities like Bellavista and Picota, many agreed that the economic level of coca farmers had declined seriously in the last two years, which coincides with the dismantling of the Medellin Cartel. This has resulted in fewer available "narcodollars" than before.

4.- It should be noted that the population explosion in Bellavista in the last ten years is partly due to the existing development projects. With the right kind of government support, this kind of growth could be maintained.

EXCERPTS FROM THE PERSONAL ACCOUNTS OF ROSALVINA FLORES AND PILAR TELLO

ROSALVINA FLORES

Carrying out the study in Alto Huallaga was a positive but difficult experience. One thing is narrating the events, another living with them.

We arrived in Tocache on August 13, 1991. It felt like going back in time. Our first evening in town was spend watching television in the lounge of the hotel; there a man asked us what we were doing in Tocache. We were scared. He wanted to know what we were selling. We told him that we were conducting a survey, but he said we were lying. He told us that his friends of the Police would visit us later on to interrogate us to find out the real motives of our stay in Tocache.

Next day, after breakfast, when everything else in Tocache was very expensive, we went to the hospital to make stadistics; there we were well attended. However we were told, upon questions to conduct the survey, to be careful knowing that the locals are mistrusful of outsiders, because in the past they had caused too many troubles.

We got to know a few people, who later waved and greeted us in town. But when we conducted interviews, people become suspicious, asking us all kinds of questions: why were we doing this, if we were associated with the Police, etc.

Many people responded simply that they cultivate coca because it is more profitable than bananas or cacao. However, these products are cultivated for self consumption.

One woman showed us how to hide coca in the seam of a pair of jeans, explaining that transporting the drug to Lima was a most profitable business.

Most inhabitants of Tocache are immigrants. Prices were quite expensive; in general we recorded the following ones in the market:

Gas(14 gallons)	17.00
Enci Milk	0.80
Semolina(Kg)	1.00
Quaker(Kg)	1.30
Chicken(Kg)	3.00
Orange(each)	0.05
Eggs(11)	1.00
Rice	0.50
Beef	3.50
Quinoa	1.50
Beer (bottle)	1.80

The exchange rate in Tocache was S/.0.40 less than in Lima. Because of the effect of large drug shipments, residents of Tocache know in advance how the exchange rate will fluctuate. The dollars are used in Tocache as if they were the official currency.

On August 17, we went to Tingo Maria, where we found the people to be generally poorer (economically) than Tocache. In the rural part of the Tingo Maria, coca was also grown.

A section of town called "Little Chicago" is very dirty, with drug addicts all over the place.

In Las Palmas and Naranjillo, we hired a local school teacher to conduct interviews because these areas were 'red zones' i.e. supposedly terrorist controlled areas.

In Aucayacu, we divided our selves in two groups, each one accompanied by a hired local interviewer. We found the local people to be distrustful of us, unwilling to answer our most simple questions or requests for addresses. One woman claimed her neighbor's son had been recently kidnapped and killed.

On August 31, we returned to Tocache where at night we got used hearing gunfire. It seems like it was not worth to stay there. People collaborated with fear.

We were unable to conduct interviews in Aguaytia, because of confrontations between the Military terrorists and civilians.

PILAR TELLO

There had recently been a confrontation between subversives and the Army; many people now were considering to leave the town permanently. I also was told that some "cambistas" (money-changers) operating there, to protect themselves from fluctuations in the dollar rate, buy and sell cocaine, collecting a steady flow of dollars directly from colombians.

Also I was told that many people formally employed in services (shops, restaurants) prefer working in the coca fields during their vacations, instead of taking vacations, because the pay is better. Students

also labor in coca fields during their vacations or teachers strikes.

Summary of experiences in some areas:

Tingo Maria:

We did not have difficulties or dangerous encounters except in the so called "Little Chicago"; even there, we were eventually well received and able to conduct the interviews.

Provincial Area of Leoncio Prado:

We found evident distrust and have to hire local people to conduct the interviews.

Aucayacu:

My colleagues felt we should not attempt to go there. The Tullumayu bridge had been recently blown after several attempts. I waited for a few days to see if things calmed down, then decided to go anyway to Aucayacu. There we hired students from the Tingo Maria University to help in the interviews. This procedure worked well because those students were well accepted and trusted by the local people.

Aguaytia:

No interviews were taken here because of too much reported violence in the area, among the military and the subversives and narcotics traffickers.

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