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AN ANALYSIS OF PLANNED AGRICULTURAL DEVELOPMENT IN THE PALCAZU VALLEY, PASCO, PERU: POWER RELATIONS, LAND TENURE AND RESOURCE UTILIZATION OF NATIVES, COLONISTS AND GOVERNMENT WORKERS

by

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Summary of Socio-Cultural and Economic Findings

The study of the social soundness of the Palcazu valley development project has been done at the initial phase of project identification and prior to the writing of the project paper. It was conducted based on 7 weeks of full-time work of Dr. Miller and 5 weeks full-time work of Dr. Martinez. The project team finds that there are numerous constraints to development in the region, due to problems of existing ethnic conflicts, land title disputes, social stratification, existence of poor institutional infrastructure in place, monopolistic economic activities, and forestry extraction concessions. In addition, current and future land use has possibly dangerous impacts on the ecosystem of the tropical forest. Keeping these constraints in mind, the team has undertaken a careful and thorough analysis of possible remedies which ought to be incorporated into the project design to avoid the risks of possible harmful social and ecological consequences, such as those which have arisen from previous projects of this type in Peru and in other countries. These remedies are listed in the concluding section of the report.

1. El Chaparral
   The most modern house in the valley which has all the typical urban comforts.

2. Medical Center of Iscozacin (under construction), which according to the natives "will only benefit the patrons".

1.

2.

J & 4 The Villa Rica
Pichanaz highway (under construction by the Peruvian army). in itself shows ecological consequences.

3.

4.

5. The Paleazu River.
A large rancher family using a motor boat to transport logs, that they have obtained from local resources.

6. Dr. Martinez with Alfredo Saldani, making the trip up the native Community of Laguna.

5.

6.

7. SASA's airport in San Ramón. The only air Transport company which serves the Palcazu.

8. SASA's meat storage facility in San Ramón. SASA is the principal buyer of Palcaza cattle.

7.

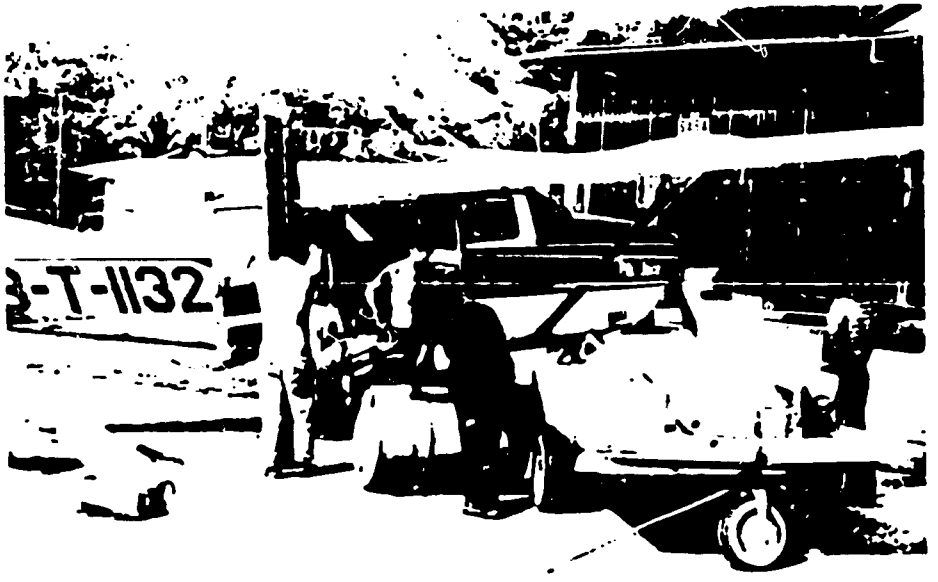
8.

9. The paved runway al San Ramón is different fron those in the Pacazu which are rocky, grassy and muddy.

10. The Cesna single engine 4- passenger planes used for carrying products, into the Pacazu after tripling their price.

9.

10.



11. The large ranchers use modern out board motors (25 HP) for their transportation.

12. The natives and small colonists use dug-out canoes, and in some cases "pequepeques", stationary motors with a long tail and propeller rigged onto them (9 to 16 HP).

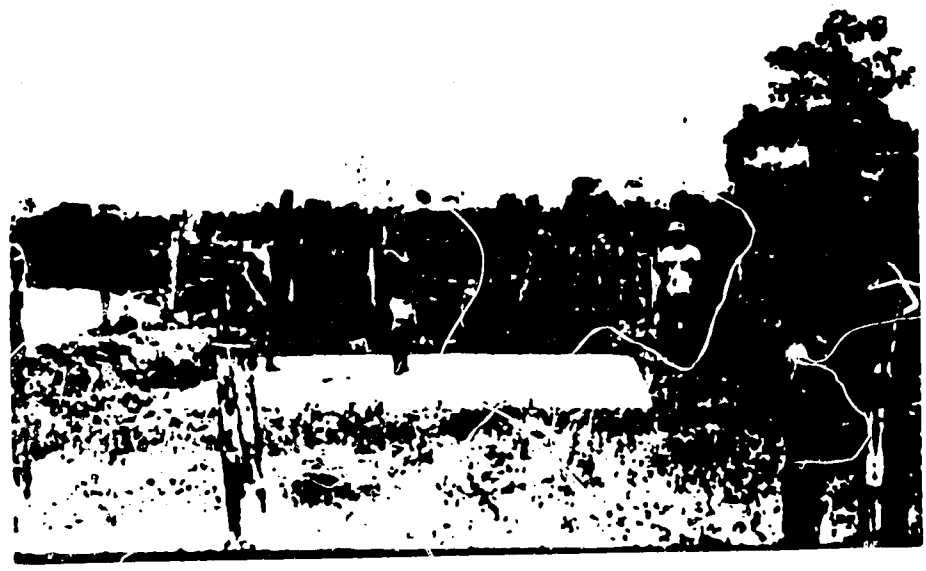
11

12

13. The rice drying floor in the native community of Shiringamaz.

14. The banana constitutes one of the principal dietory elements of all residents of the Palcazu valley.
(Photo taken in San Pedro de Pichanaz).

13



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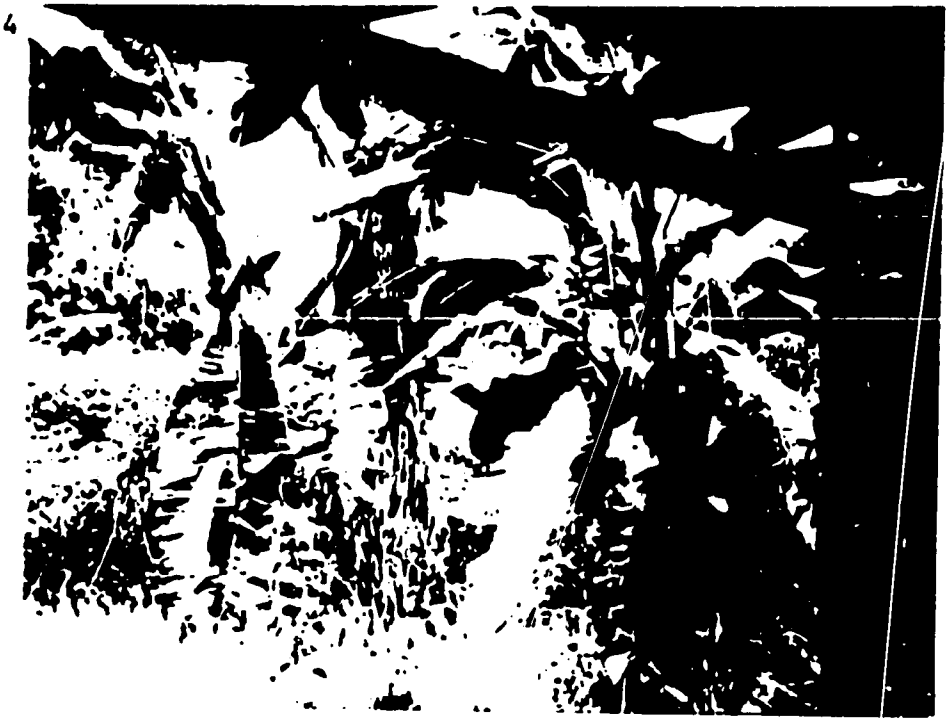


15. Yunulmazer on the highway past Cacazu, a tropical Amuesha house. Newer styles with tin roofs are replacing these styles due to the lack of palm trees as the forest is destroyed.

16. An Amuesha fisherman with his net (atarraya) In the native community of 7 de Junio , Río Maíz, fishing resources are rapidly being depleted in the area by the use of dynamite for fishing and the general population increase.

17. Living quarters at the agricultural research station of La Esperanza in the Pichis valley.

18. The Amuesha family normally is large as illustrated here by the family of the health promotor of the native community of Laguna. This is a factor in determining the land needs of native communities.

19. The unfinished school house built by the native community menbers of Villa America, 7 de Junio, with their own resources. Those buildings, as here illustrated, are frequently utilized for all types of meetings.

20. Some native communities like this one (Loma Linda), have airstrips, but due to unknown reasosns SASA does not use these strips.

I METHODOLOGY

In order to insure the most representative plan for conducting field work, the social soundness team visited settlements representing all the social strata reported to be in the project area: including native communities with and without land title as well colonist communities with large and small holdings. we also visited areas which were relatively remote from vehicle, riverine and aircraft access. However, we spent the majority of our time in settlements directly along the proposed route of the Pichanaz-Puerto Mairo road, since the greatest impacts is expected to be in those areas. Observational protocols and informal interview schedules were used to assist the fieldworkers in obtaining parallel data from all sites visited. Permanent field notebooks were used to record data.

The first phase of fieldwork conducted by Charlotte Miller and Amador Zambrano was on inspection trip to Oxapampa, Huancavelica, Villa Rica, Campamento Venceremos (Km 54), Azulis, La Merced and San Ramón during the period February 1 - 8, 1981 to conduct interviews with administrative authorities and key informants concerning the social and economic relationships between these communities and the Palcazu Valley area. Amuesha - speaking native communities in the Cacazu area were visited to observe the influences of the existing stretch of the highway from Villa Rica northward.

A second phase of fieldwork conducted by Miller and Héctor Martínez consisted of visiting Puerto Bermúdez to talk with representatives of local government, employees of national government ministries and other persons in the area who had significant contact with native communities and issues of land tenure in the region.

The final phase of field work begun February 22 conducted by Miller ane Martínez consisted of a reconnaisance trip in and around the Palcazu valley and its major tributaries. The route followed was Iscozacin, El Porvenir, Puerto Laguna, Loma Linda, El Porvenir, Shiringamazú, El Chaparral, Iscozacín, Puerto Mairo, Pampa Hermosa, Mazuhuazo, Chuchurras, Villa América, Santa Rosa de Chuchurras, Buenos Aires, Alto Iscozacín and Iscozacín.

The rivers travelled included the Palcazu, the Mairo, the Lagarto, the Chuchurras, the Maíz and the Iscozacín. From February 19 to February 26, Deborah Schulze USAID/Lima accompanied the team. From February 24 to February 26, Mac Chapin USAID/LAC (Washington) also joined them.

II. Review of Literature

The literature which refers to colonization and jungle development projects is very broad. There are, for example, no fewer that 36 works with treat "directed" colonization projects which have taken place in Peru during the last 20 years including Pichari, Tingo-Maria-Torache-Campanilla, Jenaro Herrara, Caballococha and Saispampa (Martinez, 1980). There are many studies of similar projects in other Latin American countries, such as Brazil, Bolivia and Paraguay (FAO, 1976 ; Nelson, 1973).

In the Peruvian cases, there are some important considerations from these studies which ought to be treated in the design of a project for jungle development. The first is that the location of such projects has often been determined by political factors and by the existence in certain areas of government-owned land reserves, rather than by rational study and selection of the best possible sites. The broadening of the agricultural frontier, the possibility of channelling the Andean migratory exodus away from the coastal cities, and the belief that the jungle can be a breadbasket production area for the nation and the site for the settlement of the demographic overflow of the rest of the country have been factors which generally are used to justify such projects and figure largely in the decisions to implement them. These factors, however, have not generally been proven consequences of previous projects, although some projects have shown economic viability as investments.

A second conclusion which emerges from the studies of previous projects is that colonization projects generally focus activities around the construction of penetration roads. The understanding of the resource base, the quality and true potential of the soils, the prior planning of physical infrastructure and layout, the type of colonist to be settled and the side-effects of the degeneration of destruction of the ecosystem are aspects which have

previously been barely covered in project planning and usually only as a part of the justification requirements of financing institutions. These limiting factors often are determinants of the success or failure of important aspects of the projects.

A third conclusion which studies of these projects have reaches is that there is an over-emphasis on agricultural or livestock activities as the exclusive orientation of the project, using projections of crops and harvests which do not conform to an understanding of the ecological and topographic capacity of the area selected for the project. The notion of integrated, rational forestry management and exploitation has yet to be applied in a Peruvian project, either in the project design or in the practical implementation. Actually, the extr a ction of forest resources, especially wood for lumber and other industrial purposed, has been carried out privately, under general government regulation,and has not been considered part of the projects. Furthermore, the people responsible for this process seem to be motivated primarily by commercial interest, and there has been little observation and control exerted to force them to comply with existing environmental legislation and regulations.

The final and very central conclusion of previous studies is that the settlement of colonists is extremely precarious, marked by a high degree of abandonment. Furthermore, their levels of living in many, but not all have not achieved comparative improvement to those of their places of origin while patterns of internal stratification among colonists emerge. Marketing seems to be another critical limitation to the viability of colonists production especially for small holders. Analysts have observed the process of ecological destruction to a greater or lesser degree in most of the project areas. A further problem which has arisen is that commercially exploitable stands of timber, when they exist on the settlement parcels, do not often become sources of income for the colonists: first, because these stands are often destroyed by the slash-and-burn clearing method (which does provide some additional nutrients to the soil), or second, because the system of timber concessions does not necessarily or even usually assign the right to extract the wood to the land holder. Without a doubt, the lack of coordination among

entities of the national government is another important constraint to ideal project implementation and lasting positive results. Finally, in most prior projects, when native peoples were found to reside in the project area, the ultimate result of the colonization process was their marginalization and/or displacement.

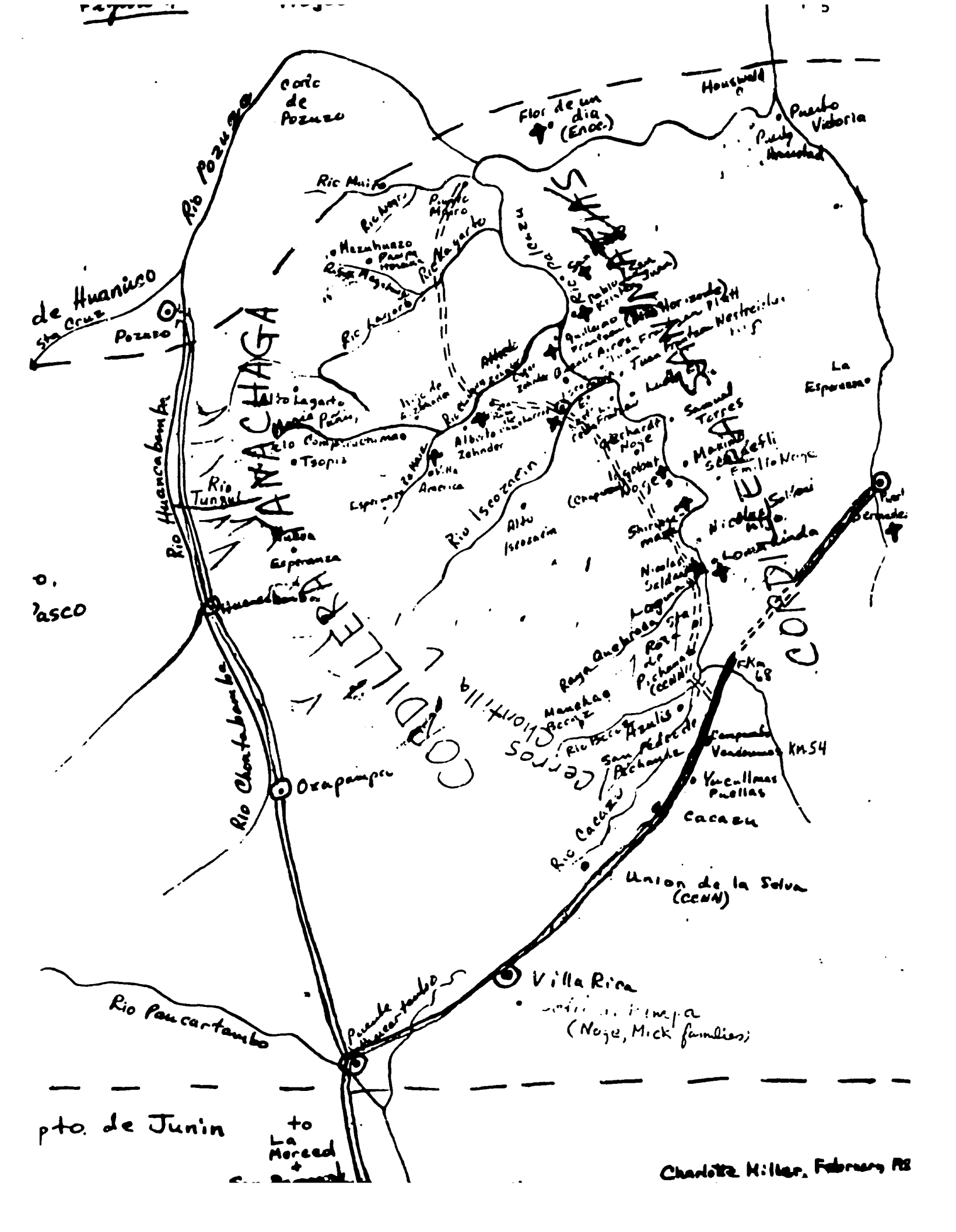
III. Project Setting

During the last thirteen years, Peru has increased its dependency on imported foods. This increased dependency can be attributed to a number of factors including commodity subsidies, price policies, decapitalization of productive enterprises, changes in ecological conditions for fish reproduction and agriculture, and increasing population. The food crisis in Peru has reached such proportion that is resolution has become a very high priority of the present government. The strategy adopted by the GOP has been to encourage the development of the jungle and high jungle areas of the country as potential agricultural areas, due to production problems which complicate increasing output on the coast and in the sierra. For instance, lack of rainfall and highfrost risks are tremendously limiting factors in the highlands, while the process of salinization as well as the conversion of agricultural lands to urbanization has influenced the coastal valleys. Also, the issue of overpopulation of the sierra and the high cost of irrigation projects for the coast are other factors which probably lead to this emphasis on jungle development.

IV. Social Profile of the Project Area

The Palcazu development projectunder study by the social soundness team has yet to be defined in this exact form at the time of this writing. However, it appears that the basic element which will define the limits of the project area will be the Pichinaz-Puerto Mairo penetration road and its surrounding influence area.

It should be kept in mind, however, that such a road will have a very wide impact on surrounding areas including the entire provinca of Oxampampa, the towns of Oxapampa, Huancabamba, Pozuzo, Villa Rica and Puerto Bermudez. (See Figure 1)


Coric de Pozuzo
Rio Pozuzo
Flor de un dia (Enoc.)
Puerto Victoria
Ric Muito
Mezuhuazo
Ric Negarto
de Huanuco
Pozuzo
Rio Huancabamba
Rio Tunbul
Alto Lagarto
Alto Compashuchimao
Tsopis
Alberto Zehnder
Esperanza
Rio Iscozacin
Alto Iscozacin
Nicolaus Schaefli
Emilio Noje
Nicolaus Soldani
Lomalinda
La Esperanza
Rio Chontabamba
Oxapampa
Rio Cacazu
Cacazu
Union de la Selva (CCNN)
Villa Rica
Rio Paucartambo
Puente Paucartambo
pto. de Junin
to La Merced
Charlotte Miller, February 78

The following sections define the socio-cultural context of the project area including the population profile of the region, the hierarchy of socio-economic relations among the diverse groups and their access to resources, land tenure and use, and diet and nutrition.

A. Population Profile

Unfortunately, the demographic information available on the project region is very limited. The authors estimate the total population of the Palcazu valley as approximately 15,000, of which approximately 3,000 are members of Amuesha native communities (CCNN) between the Upper Palcazu and Puerto Mairo. There are also a large number of mestizo and non-community member natives who live apart from the others in the headwaters of the major and minor tributaries of the Palcazu. The authors estimate that there may be as many natives living outside of communities as within them. (These estimates do not include natives living on the lower Palcazu, Pichis, Pachitea or in the Villa Rica or Oxapampa areas.) The non Amuesha population consists of a heregeneous group of Andean, coastal and jungle Peruvians, with a small but powerful elite of descendants (2nd and 3rd generation) of European colonists, predominately of German, Swiss and Austrian extraction.

B. Colonization of the Valley

The colonization of the Palcazu valley by Amuesha and other Peruvians and Europeans has been conducted in various waves. The Amuesha who since pre-columbian times lives in very dispersed isolated settlements throught the area, received additional waves of feeing native migrants from Chamchamayo and Oxapampa provinces which augmented their numbers in the valley during the last fifty years. The Peruvian and European migrants have also come in waves, these are associated with the boombust cycles of extractive activities, notably rubber in the early 20th certury, lumber in recent decades with the advance of logging trails into the periphery of the valley notably the Pichinaz and Maria Puñiz areas, as well as the Puerto Mairo area, and petroleum exploration activities. In addition, the studies made in the inter-war period for a stretch of railroad from Tambo del Sol, in the highlands near Cerro de Pasco, to Pucallpa, created high hopes for colonization in the area.

Figure 2

Periods of Boom Activities

1850 - 1912	Rubber Boom	Colonization of Chuchurras
1926 - 1955	Tambo del Sol Railroad Studies	Colonization of peripheral areas.
1956 - 1969	Cerro-Pet (Cerro de Pasco Corporation) petroleum exploration	Colonization of Iscozacin and other Palcazu tributaries
1973 - present	Lumber extraction (logging trails into upper Palcazu and Yanachaga range)	Colonization of Alto Lagarto, Maria Puñiz, Hacienda San Miguel (Bocaz) areas.

In the following figure, the rates of non-native migration are indicated from a partial census of the colonist residents of the upper Palcazu area (Loma Linda to Chuchurras) conducted by the Ministry of Agriculture in September of 1980.

Figure 3

Period of arrival of colonists to the Palcazu Valley

Periods	Number of head of families	Percentage
up to 1959	5	7
1960 - 1964	4	6
1965 - 1969	10	15
1970 - 1974	14	21
1975 - 1979	32	48
1980 - present	2	3
Totals	67	100%

Source: Ministry of Agriculture, Puerto Bermudez
Informe del Distrito Agropecuario de Iscozacin
Relación de empadronados, September 1980

As is evident from these statistics, the arrival of colonists has been greatly accelerated in the last decade with the hope of the arrival of a highway into the region.

C. Ethnicity and Interdependence

The various groups of residents of differing ethnic origin has dispersed throughout the valley, living side by side, interacting among themselves with mutual interdependence. Native communities with official government recognition are located primarily inthe upper Palcazu, mouth of the Chuchurras River, but dispersed native farms are found throughout the area, including around the Lagarto river and its major tributaries. The native communities have neighbors who are large ranchers and sometimes small colonists. The proximity of the large concentrations of indigenous peoples to the larger ranches is no coincidence. Since the times of the rubber trade, the Amuesha have lived in proximity to large colonists and traders for two basic reasons. The first is that the Amuesha constituted the labor force for the exploitation of rubber and subsquently for the opening of pastures and farmlands. The second reason is that the colonists and traders developed ties with the Amuesha in a patron-client relationship in which the trader-colonists served as agents of innovations(such as the introduction of steel tools), sources of Western medicines, commercial links to the outside world, godparents and "protectors" of their clients. Because of this relationship, the knowledge of many of their traditional subsistence technologies have been or are in the process of being lost among the Amuesha. They no longer know how to weave cotton cloth, make their basketry, find materials for and make their clay pots, chip or grind their stone axes, hunt with bows, arrows and spears, cure themselves with medicinal plants. They have adopted new ideas and have lost the attitudes toward their community and environment which allowed them to practice shifting cultivation without permanent damage to the tropical forest. As a result, the interdependence of the natives and the large ranchers is a salient fact of the geographic location and the socio-economic relations of the valley. New colonists arrive in search of lands and intersperced themselves among the existing claims.

The economic activities of the residents of the valley consists of a complex of subsistence agriculture, livestock raising, trading and

exploitation of the tropical forest. The Amuesha still practice slash-and burn horticulture, but they have become sedentary and are confined to their communal land grants or individual claims of land. They also are increasingly producing food for sale or trade within the valley's local economy, including rice, fish, game, poultry and cattle. A few of them own small store, but trading activities with a few exceptions are largely controlled by the large ranchers.

D. Social Stratification

The existence of three socio-economic strata has been determined by factors associated with certain ethnic identification and also by differential access to the existing resources.

1. The Large Ranchers

The majority of the large ranchers are descendants of the German and Tyrolian colonists who arrived to the Pozuzo region in the midle of last century, extending themselves to Huancabamba, Oxapampa, Villa Rica and Palcazu. A few Germans and Swiss emigrated via Iquitos. To a large extent this is a group that practices endogamy, (that is, they tend to marry among themselves).

2. The Native Amuesha

Most of the Amuesha-speaking residents are in the process of forming communities that are "newly" established, in that they have nothing in common with traditional native social organization. In essence, these entities are the result of Decree Law 20653 (June 24, 1974) authorizing their institutionalization for the purpose of owning land.

In the project area, there are 11 communities, most of which have title, to communal land. While many residents were born in the zone, it must be noted that some members of these communities are migrants from other areas, and the rest are outsiders (mestizos and Campas) who have been granted community membership by mutual consent.

3. The Colonists

Like the Amuesha, members of this group are called "paisanos" by the large ranchers. The colonists come from other regions of the country, and gradually have taken possession of free areas not disputed by the other two groups. This is an extremely heterogeneous stratum due to its origin. They come from regions such as the high lands, the coast and tropical and sub-tropical lands.

Another stratum consists of livestock dealers and timber entrepreneurs who deal in extraction, buying and selling of standing and cut timber. In terms of numbers, this group constitutes a minor and fluctuating stratum. However, its ecological and economic impact is disproportionately great.

E. Inter-Connections Among Groups

The above-mentioned socio-economic strata are hierarchically related in a pyramidal system, except for the merchants and timber dealers, who to some extent are identified with the interest and aspirations of the large ranchers.

The large ranchers control economic and social activities concerning the zone at national and regional level, due to their earlier access to the area, their appropriation of the best lands for their own use, their development of relatively significant livestock enterprises, their identification with other similar groups, and their better access to other parts of the country.

To illustrate their economic power, for example, from a census of 139 cattle breeders who owned 12,500 head, (Ministry of Agriculture Sep. 1980) 55% was owned by 36 members of this stratum. As stockholders of SASA (Servicios Aereos Sociedad Anonima) they have priority for marketing their livestock: to use the only air transportation means which exists in the valley. With respect to the sale of basic foodstuffs such as sugar, salt and other, and manufactured goods such as cloth, small tools, etc., they own the most diversified general stores.

The large ranchers effectively have a monopoly on cattle trading and marketing as well as the marketing of rice and other major commercial products. Their privile ged access to air transportation services is facilitated because they are private owners of the existing 6 to 8 air strips. Official and commercial relations outside the region are used primarily to obtain special benefits for themselves and their friends and relatives.

Native people, despite their relative independence by living in their reservations and electing their own authorities, remain in a subordinate position and are marginalized from scarce government services. In their livestock activities they use type of cattle share-cropping called "sistema de aparcería" with some large ranchers. They lend the natives cows for breeding and reproduction sharing the newborn animals equally, generally after a long weaning period. The Amuesha are often forced to sell their own animals to the large ranchers before the animals reach full maturity. Access to government agencies and services in minimal. The Amuesha communities are not able to obtain credit. Furthermore, their applications for forestry extraction permits are usually not even processed; therefore, the Amuesha face serious difficulties. Members of other groups consider them "lazy", and say "they don't work the land", "they have too much land", "what they get they spend on liquour", and so forth . The basic differences between the Amuesha and the small colonists is the newly formed native community organizations and the Amuesha identity as a part of a larger group: the Amuesha Congress which meets annually to review the problems of all Amuesha-speaking peoples and to consider possible solutions.

The small colonists find themselves in a similar situation to the natives, in the development of their livestock activities and the marketing of their agricultural products, including rice. Their precarious position as owners of plots of varying sizes, their lack of organization and their lack of means of expression of ethnic identification allows them to be marginalized by the large ranchers.

F. Access to Services in the Palcazu

Government activities are extremely limited in the valley, apart from the secondary school (in Iscozacin), the bilingual or coed primary schools in the native communities, and sanitary posts in some communities and other settlements. In some cases, the services and delivereis are of poor quality because of insensitive management, equipment and minimally trained personnel. The personnel of the health posts especially need better training. Often, people trained in short courses have to assume the responsibilities of a doctor, and in addition to lack medicine to treat the cases which come to their attention.

The administrative functions of government are represented by "teniente governadores", justices of the peace, and representatives of the municipality, positions which in general are filled by members of the large ranchers group and Amuesha community members. Activities carried out under these functions are not very significant.

The most organized and formal entity is the Iscozacin Agricultural District of the Ministry of Agriculture which is staffed by three agricultural technicians who are in charge of the collection of statistical data and periodic or sporadic hoof and mouth disease, carbunclo fever and rabies vaccinations. These tasks and the possible technical assistance from these agents are limited to their own training and ability and the lack of a reliable means of transportation, such as a boat. On the other hand, the little they do is usually destined for the benefit of the large ranchers group.

G. Economic Activities

From a system of absolute subordination of the native population in the past, in which labor was mostly paid in kind and, a minimal part, in cash, permiting the removal of the tropical forest for cultivated pastures and maintenance of the existing large livestock enterprises, this system has guadually been transformed into a system with truly capitalist features in which salaries and contracts are dominant.

In effect, due to a series of factors in the last fifteen years, the system of interaction of traditional production as used by indigenous peoples of the tropical forest, has entered the crisis stage. Among these factors one should note the following:

1. The creation of the native communities, permitting the creation of permanent, sedentary settlements of their members due to the possesion of a fixed territory, allowing the permanent allotment of parcels of land without the risk of expulsion.

2. The establishment of small cattle operations by native families, based on the share-cropping system described above which obviously demands intense labor efforts to establish pastures.

3. The formation of small communal cattle enterprises in five of the communities under the system of a revolving cattle"fund" by the Swiss Technical Assistance Program (COTESU), permitting the establishment of relatively large pastures. Furthermore, one should note that the members of the enterprises have donated some of their own cattle to the communal ventures.

4. The integration of the natives into the economic model of the other two socio-economic groups, through emulation, increasing their tendencies to become livestock operators to the point that some of them already have considerable herds.

5. The knowledge that the community members are acquiring about their rights as well as usual salary levels and working conditions.

These factors have resulted in an effective labor shortage for the large ranchers, who now have difficulty enlarging or maintaining their pastures, barely surviving the advance of secondary growth and over-grazing in some cases.

On the other hand, the acceleration of the destruction of the tropical forest by the natives themselves has been encouraged by these processes. At the same time, these conditions have resulted in the improvement of salaries offered by the large ranchers or the more frequent use of contracts with natives for the slash-and-burn process, the sowing of pastures, and the maintenance of open fields.

H. Land Tenure and Use

1. Types of Tenure

There are two basic types of land tenure found in the project area: individual and communal ownership. Large ranchers and small colonist hold their homesteads as individual properties while the Amuesha communities claim or have title to lands as a group. However, within the communities, except for the five cases of communal enterprises mentioned above, members use land as individual families, according to the needs and capabilities of each family. The individual type of tenure is characterized by the de facto possession of land or the formal claim of a homestead through the Ministry of Agriculture; size of holding is variable, although it is notable that the large ranchers have acquired a large proportion of cleared land, compared with the amount acquired by small colonists.

Figure 4 illustrates the nature of the size of claims for land grants or lands being already worked: There is an average of 140 hectares per claim, representing a total of more than 20,000 hectares by a total of 169 claimants, not taking into account the areas not already censused nor the numerous colonist already squatting near the proposed access routes and existing trails into the Palcazu area from Oxapampa and in the headwaters of the important tributaries of the Palcazu, who are little by little increasingly making use of the land for small livestock operations.

It is impossible to make an exact determination of the amount of land now being claimed through use and/or official documentation, as well as the amount of land actually being used for livestock or agricultural purposes. This lack of data is due to the lack of any type or rural cadaster. However, through field visits and observations it it quite evident that the Palcazu valley is very much more occupied and populated than some would have us believe. Therefore, valley residents are very anxious to get land title

FIGURE 4 : Extensión of Land claims
CUADRO 4 : Extensión de áreas solicitadas
(Total 20,607 hectáreas)

SIZE OF CLAIM EXTENSION Has.	TOTAL	
	No.	%
Hasta 50	6	7
51 - 100	29	32
101 - 150	12	13
151 - 200	14	15
201 - 250	2	2
251 - 300	12	13
301 - 350	4	4
351 - 400	4	4
401 - 450	5	6
451 - 500	3	3
501 -	1	1
TOTAL	92	100

Source/Fuente: Ministerio Agricultura, Puerto Bermúdez.

* 2,000 hectáreas.

for homesteads and claims. Many residents, including native communities, large ranchers and small colonists, have made written formal claims, but the process is extremely slow and appears to be paralyzed by the various administrative reorganizations of the Ministry of Agriculture in the last fifteen yeras.

The percentage of those who have obtained property deeds is so small that it is insignificant, except for the native communities of which the majority have title for at least their initial claims.

One of the phenomena which impedes the process of land titling, or at least, the physical marking of claimed or possessed land, is the superimposition of claims and the ease of invasion and occupation of lands. These factors constitute permanent sources of tension and conflict, which, after a long and complicated procedure, can be resolved by some branch of the Ministry of Agriculture, or by the intervention of law-enforcement and judicial authorities in the valley.

As for the native communities which lack land title, they have to pursue equally long and burdensome procedures before local,regional and national entities, in addition to feeling the same types of anxieties and preoccupations as their colonist neighbors. Furthermore, the lands of the native communities are being continually invaded by new colonists, who have come to the Palcazu, hoping to take advantage of the rapid increase in value of all types of property due to the rumors of highway building.

2. Land Use

The three major socio-economic groups use their lands differently. The large ranchers, for the most part, have done away with the tropical forest to establish pastures for intensive livestock rearing. These enterprises are based on extremely heterogeneous stock, with components of various breeds including Gyr, Santa Gertrudis, Criollos, Nelove and others.

The technology used is extremely simple in terms of management and veterinary control of the animals; for example, the classification of animals by classes and the use of fenced pastures for rotation practically unknown. Free pasturage and weekly examination of the state of the animals in precariously constructed corrals is a typical feature of Palcazu Livestock operations.

The use of the lands of the tropical forest for establishing pastures, using a native grass torurco and/or Kudzu, is widely found. The tropical forest which should be protected as a national resource is used to make pastures causing serious and progressive soil erosion which could eventually degrade and destroy the original ecosystem as happened in the cases of Chanchamayo, Oxapampa and Villa Rica valley. Over-grazing of the land aggravates the ecological destructive process.

Both the colonists and natives use the land for livestock purposes in a similar way. However, the natives' use is less intensive due to their lack of capacity to develop larger livestock rearing operations. This limitation is based on the fact that they have only one or two animals obtained under the "share-cropping" system, or through donation of animals from COTESU, as in the case of five communities, in order to establish large communal enterprises whose principal function is intended to be coalesce community interests. The management technology, the quality of the stock and the veterinary treatment of the animals do not significantly differ from that of the large ranchers.

Communal land is used by natives and other community members for subsistence agricultural purposes, with the exception of the rice crop which represent an income source. These agricultural activities are of the shifting type, planting bananas, manioc, taro, beans, corn, pineapple, citrus fruits, and sugar cane. Successful harvests depend on the type of land used, botton lands called "bajeal" or highlands called "alturas". Use of the land tends to be permanent. The traditional crop rotation is followed by pasture activities including the "share-cropping" system. As the family grows, the more land is cleared.

FIGURE 5 : RELATIONSHIP BETWEEN LAND AND PEOPLE
CUADRO 5 : RELACION BRUTA TIERRA/FAMILIA

NATIVE COMMUNITIES COMUNIDADES	WITH TITLE CON TITULO	SIZE OF HOLDING HECTARES EXTENSION HECTAREAS	NUMBER OF FAMILIES NUMERO DE FAMILIAS	RELATIONSHIP OF HECTARES PER FAMILY RELACION BRUTA HECTAREAS/FAMILIA
1. LAGUNA	-	4,828 *	24	55 **
2. LOMA LINDA	-		64	
3. SHIRINGAMAZU	X	2,851	44	65
4. 7 DE JUNIO	X	8,782	116	76
5. BUENOS AIRES	X	3,258	42	78
6. NUEVA ESPERANZA	X	7,000 ***	37	189
7. SANTA ROSA DE CHUCHURAS	X	2,048	22	93
8. ALTO ISCOZACIN	X	2,580	26	92
9. ALTO LAGARTO	X	3,120	20	156
T O T A L		34,467	395	87

* Incluye a LOMA LINDA
Including LOMA LINDA

** Considera a las familias de LOMA LINDA
Considering LOMA LINDA families

*** Comunidad en formación; la extension señalada es referencial
Community in organization process; the indicated territory size is aproximated.

Both agricultural and livestock activities involve not only the destruction of tropical lands by too intensive land use, but also the destruction of timber stands when the fields are located away from the streams, making it impossible to take timber out. Thus, the falling and burning of trees is complete causing total destruction and those trees which are not totally burned end up completely rotten.

3. Land/Family Relationship

The general idea that the natives own too much land is not correct when comparing the figures shown in Figures 5 and 6 . First it can be seen that 85% of the families of the community (excluding those of Nueva Esperanza and alto Lagarto) own an average of over 71 hectares; second, as shown in the above mentioned tables, the general average per family in native communities is in the order of 87 hectares compared with 234 hectares amont the colonists and large ranchers.

In addition, it must be stated that the lands owned by the large ranchers are better located and have a better quality both because of the less steep terrain and the type of soil due to the vicinity of the river banks, while much of the lands of the natives are located on the slopes and foothills of the San Matías and Yanachaga mountains.

Another factor is the rapid growth of the native population and the large number of young people who soon will form their own family and will remain attached to the area.

Among the natives, the large family unit (7 to 8 members) tends to prevail. (See Figure 5). This is due to the rapid decline of prior rates of infant mortality and increased life expectancy, both of which are caused by the easier access to medicine and modern health care. It should be pointed out that several of the communities have health posts run by health promoters who are from the community. The demographic changes resulting from better health is a serious factor in evaluating the future needs for lands in the communities. It is obvious that the great number of adolescents in the communities will soon be forming families of their own. (See figure 6).

FIGURE 6 : Size of domestic groups by community.

CUADRO 6 : Tamaño de los grupos domesticos por comunidades.

NUMBER OF MEMBERS NUMERO DE MIEMBROS	LAGUNA	LOMA LINDA	SHIRINGAMAZU	TOTAL	
				No.	%
1 - 2	2	11	5	18	14
2 - 4	4	14	13	31	23
5 - 6	5	18	6	29	22
7 - 8	8	15	12	35	26
9 - 10	4	6	4	14	11
11 - +	1	-	4	5	4
Total familias Total families	(24)	(64)	(44)	(132)	(100)

Fuente: Padrones de comunidades
Source: Community census records.

FIGURE 7 : AGE GROUPS BY COMMUNITY

CUADRO 7 : GRUPOS DE EDAD POR COMUNIDADES

AGE GRUPS GRUPOS DE EDAD	LAGUNA	LOMA LINDA	SHIRINGAMAZU	VILLA AMERICA *	SANTA ROSA CHUCHURAZ	BUENOS AIRES	N. TOTAL	%
0	5	13	-	13	2	-	33	2
1 - 4	25	56	47	40	14	43	225	16
5 - 9	29	59	47	49	15	41	240	17
10 - 14	30	54	34	42	14	42	216	16
15 - 19	22	39	32	32	16	28	169	12
20 - 24	8	20	18	19	5	13	83	6
25 - 29	10	26	13	20	6	14	89	7
30 - 34	5	14	9	11	2	15	56	4
35 - 39	7	26	19	12	1	16	81	6
40 - 44	8	15	12	9	2	5	51	4
45 - 49	5	10	9	8	-	7	39	3
50 - 54	2	3	3	1	1	5	15	1
55 - 59	-	1	4	2	1	3	11	1
60 - +	1	1	5	14	6	7	34	2
ND	-	-	-	7	28	2	37	3
TOTAL	1 7	337	252	279	113	241	1,379	
FAMILIES FAMILIAS	24	64	44	56	12	42	252	100

Source: Community maintained census records
Fuente: Padrones comunales

* Uno de los tres sectores de 7 de Junio
* One of the 3 sectors of 7 de Junio.

Note: Community census records often exclude non-participating natives who have homesteads on lands outside community territory

Nota: Padrones comunales frecuentemente no incluyen nativos que tienen asentamientos fuera de los linderos de la comunidad.

In contradiction with the general idea that natives do not work appropriately the land they have received, according to (Fig.8) we can see that the number of animals they individually own is significant. Pastural areas exceed the requirements of their livestock, however over grazing of the land is not their practice as it is in the case of large ranchers. The 1,161 animals of the 6 communities (Fig.8) represent 10% of the total 12,500 animals that are estimated in Palcazu. However the quality of the native's animals is excellent considering the conditions in which they get them (share - cropping system is one of them) and the lack of all type of assistance from the government. If the appropriate mechanisms were established, the potentiality of increased production could be observed. For example, through the COTESU revolving fund, small livestock enterprises have been established in five communities.

FIGURE 8 : COMPARISON BY COMMUNITY OF SIZE OF FAMILY CATTLE HEADS
CUADRO 8 : COMPARACION POR COMUNIDADES DE TAMAÑO DE REBAÑO DE VACUNOS POR FAMILIA

CATTLE HERD SIZE	LAGUNA	ROMA LINDA	SHIRINGAMAZU	VILLA AMERICA	SANTA ROSA DE CHUCHURAS	BUENOS AIRES	TOTAL
0	13	27	7	20	6	4	77
1 - 5	4		21	25	8	6	64
6 - 10	3		7	6	5	8	29
11 - 15	3		6	1	2	1	13
16 - 20	-	-	2	-	-	2	4
21 - 25	1		-	1	-	-	2
26 - 30	-		1	1	1	1	4
31 - 35	-		-	-	-	2	2
36 - 40	-		-	1	-	-	1
41 - +	-		-	1	-	-	1
MD	-	37	-	-	-	-	37
TOTAL	24	64	44	56	22	24*	278
TOTAL ANIMALES TOTAL No. OF ANIMALS	(60)	(178)	(294)	(288)	(109)	(232)	(1,161)

* No incluye a toda la comunidad

Does not include the entire community

I. DIET AND NUTRITION

1. Local Food Sources

The Palcazu valley is now almost self-sufficient in food production. Most of the food consumed in the valley is produced there. The major food producers are the natives communities and the small colonist who trade their surpluses for cash or manufactures goods. The local foods resources come from slash and burn agriculture, animal keeping hunting and fishing. The most important foods of the region are manioc, bananas, plantains and taro, with rice becoming increasingly important. The Chiclayo bean (in its red and yellow varieties) is a common component of the diet of natives, while animals protein is partly obtained through hunting the small animals available in the tropical forest such as several species of rodents known as sajino, majaz and añuje, as well as tapir and wild boar. Deer, monkey and those fowl considered most desirable are, according to native hunters, becoming increasingly difficult to find, but still are occasionally present. during the summer months (the non-rainly season), fishing is better, in that the waters are low in the rivers and streams, there is less mud in the water allowing better visibility and the beaches are broad, making the casting of nets easier. In addition to hunting and fishing, the natives and colonists alike keep animals: primarily chickens and swine for their own consumption and partly for sale. It is typical of the natives to take some game, fish or other produce to the homes of the large ranchers, to see what they can get for it. In one case observed by the authors, a native was offered a pack of cigarets and a couple of drinks for a string of ten fish.

2. Food Imports from Outside the Region

The large ranchers with access to airports tend to import food items from the outside such as candy, crackers, canned fish, beer, salt, spices, liquor, coffee, sugar, canned milk, cheese, fresh vegetables, potatoes and tomatoes. At one of the ranchers visited by the team, all food except bananas beef and pork products were imported by plane. One of the reasons for this is that it is difficult to convince the airline SASA to come into the region when there is cargo or passangers only going one way. The large ranchers import foods and other goods for their stores and barter operations because that is one way to insure that the airline will come in to pick up and take out the meat of the cattle they want to market. Food imports, then, are being encouraged by air transport services, of a monopoly type. In recent years, with the increase in the colonist and native population, more foods are being imported into the region. The natives are also increasingly using foods brought in from outside the region, especially candy, cheap liquours, salt, sugar, noodles, crackers, canned fish, and beer, but the scale of market dependency is less.

3. Adequacy of Diet

The diet of the natives and the small colonists is apparently not very adequate, which is revealed in the records of all the health post visited by the team. The most significant cause of death were diseases related to malnutrition. Many cases examined by the promotors were cases of anemia, parasites, rickets, tuberculosis and gastroenteritis. It is probable that anemia is on the increase due to the reduction in the quantity of game and animal protein due to increasing demand for these foods from the growing class of large ranchers, who also have numerous broods of offspring, many of whom aspire to own large ranches of their own.

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4. Conclusions about Diet and Nutrition

The zone of the Palcazu seems to becomming more dependent for food resources on the outside, especially or Chanchamayo, Tarma and Lima. The large ranches which use the scarce, bottom lands for pastures instead of food production are not producing sufficient food for their residents. The opening of pastures on native lands is having the same consequences. Furthermore, the livestock activities of the natives and small colonists is not adding to their own nutritional state, since the production is fundamentally destined for sale rather than consumption.

J. ROLE OF WOMEN

The native women have an important role in the onerous tasks of cooking and food processing, as well as producing and caring for children. They no longer are involved in cultivation to the extent that they were in the past. The elderly women continue to know how to veave cloth and baskets but the younger women are more interested in manufactured clothes and containers.

Some women contribute in the rice polishing process using the mortar and pestle process. In Shiringamazu, this process is now carried out by a motorized polisher donated by CARE and operated by men. The men often say that the women don't do anything. Unlike the Andean regions, girls are not discriminated against in the schooling process. However, women are reticent to use health posts for obstetric and gynecological services because they are embarassed by being treated and examined by the promoters (who are exclusively male).

Native women have given birth to children of European descent, although n o cases of marriage between native and the Germanic class were discovered in fieldwork. In isolated cases, women have become involved in commercial activities including the establishment of tiny stores.

Another factor in the lives of young Amuesha girls is the search for domestic servants by the housewives of the large ranchers for themselves their relatives in Oxapampa, Villa Rica, San Ramón, Lima and even in Costa Rica.

This is one of the mechanisms by which the native women are assimilated into Western life, including the possibly dangerous influences of foreign norms and elements, such as changes in sexual behavior, resulting in the introduction of gonorrhea, according to one health promoter, brought in by girls who have worked as servants.

The women of the large ranches complain or the lack or adequate obstetric services. As a result they often go to hospitals in neighboring cities as La Merced, Tarma or even as far as to Lima to give birth.

The life of women on the ranches is devoted to child care, education, sewing and food preparation. They are hard-working and busy people.

CONCLUSIONS

Summary of Constraints and Remedies

The findings of the social soundness analysis is that the Palcazu valley development project may be socially feasible and beneficial to the target groups only if appropriate measures are taken to protect the relatively fragile ecological systems of the area and to institute special activities for aiding and developing the native communities. Furthermore, it is essential to avoid the other negative consequences which have been observed in other projects of this type.

Therefore, the following constraints have been identified for the project, and they are presented here with suggestions for remedies in project design and on-going evaluation to avoid negative impacts.

1. The lack of a rural cadaster

Remedy: A very complete, rapid and fair measuring of lands already claimed and settled by natives and colonists alike is an essential and absolutely necessary first step before any further work on road building is undertaken.

2. The lands of the Palcazu seem to be largely occupied and the potential for additional colonization is limited. Remedy: The project should de-emphasize the colonization component and emphasize development projects and activities for the current residents.

3. There is a great lack of information about the appropriate recommendations in how to use the lands already settled. Remedy: Additional studies are necessary at the farm level of soils. A deep study is needed of

the correct recommendations for reforestation and for the management of forestry-pasture farms.

4. There is an accute danger of timber explotation by unauthorized persons and by government concessionaries in areas that are unsuited for these types of lumbering operations which will cause irreversable damage to Perú's national patrimony: soils, flora and fauna.

Remedy: All current forestry concessions in the area should be annulled and illicit lumbaring activities should be better policed and controlled. Further studies must be undertaken to assess forestry problems as indicated in item 3.

5. There is a lack of sufficiently trained forest rangers, agricultural and livestock specialists, health, nutrition and community development advisors to aid native and colonist residents.

Remedy: A component of the project should be training programs for better quality and more dedicated forestry police and/or rangers, promoters of agriculture, livestock, health, nutrition, and community development, giving priority to persons selected by their respective communities, and especially, to women in the area of health and nutrition.

6. There exists and extremely exploitative and hierarchical social structure in the area which allows most benefits to accrue only to local and outside elites.

Remedy: The project need to have a strong AID evaluation component, with sufficient controls and checks to insure the fair distribution of resources and the equitable treatment of all citizens. (See below: Summary of Recommendations for Evaluation).

7. The valley lacks alternatives in marketing its production, resulting in monopoly benefits accruing to a few, as well as raising costs of production (farm-to-consumer) beyond viability.

Remedy: The project needs to sponsor infrastructure which is equally available to all residents, including truck and feeder roads.

8. The native communities and the small colonist farmers are ignorant and relatively powerless in enforcing their existing rights.

Remedy: The project should finance a special program of directed technical assistance for natives and for small colonists, which could include training components in legal issues, accounting, leadership as well as technical subjects, dealing with production.

9. The natives and small colonists lack access to credit, although on paper, it is available to them.

Remedy: The project should provide for a rotating cattle fund or other special program suited to the needs and capacity for capital absortion of smaller farmers and communal organizations.

10. The members of lower strata are often discouraged by the arduous nature of documentation procedures when dealing with financial, governmental

and other institutional bureaucracies, which causes them to spend great sums of money and quantities of time traveling to check up on any request or application for aid.

Remedy: In order for the project to avoid negative effects on the members of lower strata in the Palcazu, some manner of simplification of bureaucratic procedures, including the shortening of forms and requirements for paperwork is needed. Furthermore, government employees in the areas of health, agriculture and credit must be give greater incentives to get out into the field with their intended clients, rather than being continually rewarded for desk work. Perhaps an award system, initiated by communities could be instituted.

11. There is a great deal of ignorance, even among well trained people, concerning the types of recommendations appropriate for agricultural and livestock production in the area. The study indicates that there are many harmful side-effects now occuring from the system of land use now practiced.

Remedy: The project needs to initiate immediate programs of agricultural, forestry and livestock research, possibly through the establishment of a simple, appropriate technology-oriented center in the valley, with funds for fellowships , equipment and other necessities.

12. The natives are extremely anxious and concerned that the government plans to take away their recognition, take away their land titles, refuse to grant land titles to communities without them, relocated untitled native communities on the lands of those with title and allow timber extraction

concessions on native lands.

Remedy: The project design should include explicit protection of native groups from all these feared incursions (which the GOP assures us are not part of their plans for the area). Furthermore, the project should give native communities help in reenforcing their identity as Amuesha through such programs as bilingual education aid to the existing Casa Cultural, a center of ethnic activities, coordination with and support to the Amuesha Congress, support to existing organizations such as Agro-Yanesha and the encouragement of other similar projects at strategic points in the valley, bearing in mind that these programs should be very small in scale to avoid the possible negative impacts of a "development project boom economy" in native communities. Furthermore, the project should encourage the incorporation and participation of existing concerned, private groups who already have the respect and confidence of the Amuesha.

13. The native communities should be given strong consideration for grants of communal reserves, as protectd forests, in order to avoid potential conflicts with colonist neighbors.

14. There are resources in the area which should be taken into account during road construction.

Remedy: The road construction studies should look into existing roads, now over-grown which were constructed in the 1960's by the Cerro de Pasco Corporation.

15. There is a lack of baseline information for project evaluation.

Remedy: A diagnostic study including census, dietary studies, and medical and health examinations, should be financed in order to determine the effectiveness of implementation of various programs and their real impact on the quality of life in the valley.

SUMMARY RECOMENDATIONS FOR EVALUATION

Taking into account he experience gained in prior projects, the following evaluation procedures are indicated for this project.

a. An annual evaluation with bothe fieldwork and office studies, based on the quantitative and qualitative goals estatished and baseline information. In some areas, baseline information which is more precise is needed as soon as possible.

b. Field inspection trips to see all physical results of project activities, especially public works.

c. Good studies of immediate impacts (consisting of no less than two weeks fieldwork) with interviews and short questionaires administered to target beneficiaries in the areas of technical assistance, credit and the establishment of services of the reported quality.

d. Annual visits to protected forestry reserves to observe the nature and extent of compliance with environmental regulations concerning timber extraction, reforestation, and land use, among other factors.

e. Annual recommendation for project redesign based on possible unforseen negative ecological and social consequences, including impacts on nutrition and health.

f. Evaluations must be carried out by specialists in the appropriate fields of activity, giving, priority to individuals who participate in project design, as long as they are not associated directly with the project execution.

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ANNEX I

A Short Commentary on Amuesha History and Migration

February, 1981 - Lima, Perú

The Amuesha - speaking peoples of the Pruvian high jungle are a distintive linguistic group which in pre-Columbian times practiced a hunting, fishing, collecting, and shifting cultivation subsistence pattern. This economic base had been changing at a slow rate during the years in which they were in sporadic contact with colonial peoples, including Catholic missionaries and Spanish colonists.

From the time of the first contact with Spanish Franciscans (1630) until the late nineteenth century, the Amuesha occupied the valley botton lands along the Chanchamayo, Paucartambo,Chorobamba, Huancabamba, Pozuzo, and upper Palcazu Rivers, as well as the higher side valley in the area known as Salt Mountain (Cerro de la Sal)near modern day Villa Rica. By 1940, the Spanish had settled large areas of this territory, especially in Chanchamayo and Huancabamba, forcing the Amuesha to seek refuge in one of the eight mission posts established by the Franciscan Missionaries. The regimented life-style and authoritarian rule imposed by the priests and enforced by their black slaves, plus the forced work in the Missions sugar cane fields, led to constant discontent and rebellion by the native residents. A 1942 rebellion which coalesced around the messianic figure of Juan Santos Atahualpa, a descendent of the last Inca ruler, was successful in uniting members of a half dozen ethnic groups to expell the Spanish presence from the entire central jungle.

Successive governments of the Republic (after 1924) tried to assert control over the central jungle, especially the areas of the Amuesha homeland. Finally by the 1880's military expeditions sent by the Lima government successfully broke the Amuesha's resistance. This was done with the aid of Franciscan missionaries who established three mission posts in Amuesha territory at this time: San Luis de Shuaro and Sogormo in the Paucartambo valley, and Quillazu in the Chorobamba valley. Europen, Chinese, and mestizo colonists moved into these river valleys to establish coffee, coca, fruit, and sugar cane plantations. By the 1930's all the valley-botton agricultural lands had been taken over form the original Amuesha inhabitants

and were under control of the new settlers. This, together with the ravaging effects of disease, produced profound demographic and social changes within the Amuesha society and economy. The dwindling population field both to higher elevations berween the river valleys and to the East, over the Yanachaga mountain range into the Palcazu Basin. The groups which remained behind formed small islands in a sea of colonists; slowly they were incorporated into the surrounding market economy as low-paid workers on the surrounding plantations.

Settlement and Land Tenure Patterns in the Palcazu Basin

The Palcazu Basin itself was never settled by the Spanish and remained virtually unexplored by outsiders until the late nineteenth century, when rubber gathering companies coming up-river from Iquitos moved into the area. By the turn of the century, several rubber companies operated in the area with rubber and land concessions granted by the Peruvian government: Casa Kitts with 13,000 hectares in the area of Rio Lagarto; Sociedad Explotadora de Gomales del Pozuzo Ltda. with 1000 hectares in Mairo, which was later expanded to 25,000 hectares under the control of the Cuculiza family of Huanuco; Sociedad Maguera y Pisculish with 111,000 hectares in the area of Chuchurras and Iscozacin. In addition, several families of European descent moved into the Palcazu Basin at this time to collect and sell rubber as well as to establish haciendas.

These families, to a greater degree than the rubber companies, depended on native labor for their rubber collection and agricultural activities. One turn-of-the-centure source tells us that one German colonist "exerts great dominion over the savages who serve him with pleasure. Right now, he counts on a hundred of them for this activities, but year after year their numbers decrease because of diseases from the outside. Smallpox and measles (rubeola) notably reduce the number of workers available for rubber extraction. A number of the decendents of this colonist still live in the Palcazu basin.

With the end of the rubber boom, larger companies abandoned their work in the Palcazu, as they did throughout the Amazon region. However, the persons

who controled these companies and their descendents maintained their claim to the lands of the rubber concessions throughout this century and actively prevented spontaneous settlement of their lands. For this reason, for example, the area of Mairo and the Codo of Pozuzo remained practically unsettled until 1970, when the concession held by the Cuculiza family was finally anulled. The large Amuesha population which lived within the Porvenir de Chamairo concession (Sociedad Maquela y Pisculich) were continually harrassed by the Pisculich family which lived in Oxapampa in an effort to force the Amuesha off the concession lands.

However, the emigrant families remained in the area, and intermarried amongst themselves and with the German immigrants of Pozuzo and Oxapampa. These families established small feudal estates based on their control of the Amuesha labor force and maintained a virtual monopoly on all aspects of life in the Palcazu valley until the 1960's. The Amuesha population was concentrated around the midele Palcazu and the tributaries of Chuchurras and Iscozacin, often in the vicinity of one of the immigrant families on whose "lands" they were allowed to plant subsistence gardens.

In the 1960's, a subsidiary of the Cerro de Pasco Corporation conducted oil explorations in the central Palcazu. The promise of access roads into the valley and future petroleum development produced a new wave of land claims and speculations. By this time, virtually all available lands in the Palcazu valley had been claimed, including all the areas occupied by the Amuesha. * However, when the Cerro de Pasco Corp. closed its activities in Peru, interest in the lands died and with few exceptions most of the concessionaires who actually settled on their land claims abandoned the area.

By 1958, then, all the accessible lands in the Palcazu Basin had been claimed either by outsiders or by the few immigrant farmers who lived there.

*Source: Map dated 1958, Ministro of showing the entire area parcelled and named.

The vast majority of the population, the Amuesha, lived within these lands claimed by others. Only one Amuesha group, an adventist group which fled from the Perne valley to Loma Linda in the upper Palcazu, had filed a claim. It had been filed in 1948 for 2000 hectares.

Three things happened to change this situation drastically after 1969. First, the govenment revoked the large land concessions. Second, new colonists, some of whom were from the Andes, but mostly people from the already saturated areas of chanchamayo, Oxapampa, and Pozuzo, moved into the Palcazu and occupied the areas of the former concessions. Third, due to community development programs initiated by the Summer Institute of Linguistics, (SIL) the U.S. Peace Corps, and social workers from the Belaunde Agrarian Reform Program (Ley 15037), the Amuesha of the Palcazu laid claim to the lands which they occupied despite the lack of any specific legislation which backed their petitions.

Encourage by the SIL, several communities petitioned the Belaunde government in 1966 for tracts of land (about 1000 hectares each) for those families which had gathered around the SIL bilingual schools (Villa America, Villa Esperanza, Tsopis, Shiringamazu, Azulis, Puerto Amistad). The SIL director told the author in 1967 that the reason they encouraged the teachers to do so was to atract more Amuesha to the schools, thus facilitating their religious conversion. In spite of these plans, only the Puerto Amistad petition was ultimately recognized.

Between 1967 and 1972, U.S. Peace Corps volunteers in conjunction with workers of the Agrarian Reform program encouraged the Amuesha to petition the government for recognition of their land rights as communities rather than as individuals. In 1969, 24 Amuesha communities joined together to form the Congress of Amuesha Communities, which continues to press for land and other rights for the native communities. During those years, 25 Amuesha settlements have petitioned the government for guarantees to their lands and for official recognition as communities (13 in the OxapampaVilla Rica

area and 12 in the Palcazu Basin). Of these, 11 were recognized as "Reserve Cumunales" by Ministerial Decree, comprising a total of 21,644 hectares (4 in the Oxapampa - Villa Rica area with 430 hectares, and 7 in the Palcazu area with 21,214 hectares). Obviously, there is a very serious land shortage problem for the Amuesha in the Oxapampa-Villa Rica area communities.

Between 1972 and present, and especially after the appearance in 1974 of Decreto Ley 20653 (later modified in 1978 and D.L. 21175) Ley de Comunidades Nativas y Desarrollo Agropecuario de la Selva, the new Amuesha communities continued to demand recognition of their land rights. Between 1972 and 1976, government workers were active in the Palcazu basin identifying communities, gathering information, and accelerating the legal process of community recognition and land titling. All Muesha communities which currently have legal recognition and land title received them before 1978. Since that year, no other Amuesha communities nor any other communities in the jungle have received either legal recognition nor land title under LD 21175.)Chart # 1 summarizes statistical information about the 19 Amuesha communities located in the area). In the Oxapampa-Villa Rica area, 10 communities have been recognized and titled; these communities include approximately 250 families with a combined extension of about 3500 hectares, or roughly 14 hectares per family.

Socio-Economic Factors of the present Process of Community Formation

Traditional economy: The traditional Amuesha economy is a sophisticated and complex adaptation to the tropical forest environment characterized by a series of complimentary activities: slash-and-burn horticulture, hunting, fishing, and gathering. These activities, which many Muesha still pursue, supplie each family with virtually all of tis basic needs for food, clothing, and housing. Each family prepares its own garden according to its needs. Household members plantup to 3 separate gardens each year: (1) the smallest, often less than 1/4 hectare, is planted with beans; (2) on the more fertile la[illegible] maize, bananas, peanuts, taro, climbint beans, sachapapa, sugar cane,

squash are planted; (3) in the higher parts, 1 or 2 hectares of manioc and/ or rice are cultivated. The Amuesha have developed their own varieties of these cultivated plants, many of which are now desappearing. The author has found in Amuesha communities more than 40 varieties of manios, 15 varieties of Taro, 11 varieties of sachapapa, 5 varieties of corn, 3 varieties of peanuts, and 9 varieties of beans.

The Amuesha divide foods into two categories: "Masculine" contributions from hunting and fishing, and "feminine" contributions from garden produce. They correctly believe that the diet should be a balance between these two classes of foods. Hunting and fishing provide almost all the high quality protein in the Amuesha diet, since domestic animals such as chickens and ducks are rarely eaten by the family; they are either saved for important visits or sold or traded for manufactured goods.

Traditional economic relations within the community, which are changing in the face of increasing market dependency and monetization, and the exchange of highly valued products such as salt, dried fish, coca and ammunition are based on the principle of reciprocal redistribution. Each individual gives away his surplus production such as extra manioc, corn or meat. Thus creating obligations on the part of his kin who received the gifts to eventually do the same in return, in this manner insuring community and kin solidarity. As the productive forces of the Amuesha are reoriented toward s the market individuals assimilate the market system ideology and learn to accumulate the excess production in order to invest it to increase productive capacity. As a result, a process of economic and social differentiation*has begun within each settlement.

The Amuesha living in the project area can be divided into two groups: those living along the upper Palcazu from the community of Loma Linda into the narrow valleys of the Cacazu and Bocaz Rivers (CCNN Laguna, Loma Linda, Sta. Rosa Pichinaz, San Pedro Pichanaz, Machca Bocaz, Yuncullmas), and those living in the midele and lower course of the Palcazu (all the other communities). While the subsistence pattern of both groups is roughly the same, their contact and relations with the colonists and market economy is very different.

Those Amuesha living in the upper Palcazu have been able to maintain a more traditional way of life. This is because of their isolation from colonist settlemtns and market centers and because of the relative undesirability* of the lands which they occupy for colonist settlement. Of course, the new Villa Rica-Puerto Bermudez road is fast changing this situation along the road, Andean colonist speculators have been settling on and clearing all types of lands, regardless of optimum land use potential. Most of the male Amuesha population from the upper Palcazu area leaves the community for a few months (March_June) every year to pick coffee on the plantations around Villa Rica. They then buy clothes, school supplies, ammunition and pots in Villa Rica and return to their families in time to clear and burn a new garden, and continue their traditional subsistence pattern until the following year. In this way, they have managed to satisfy their minimum needs for manufactured goods while maintaining a certain degree of economic and cultural independence.

The situation in the middle and lower Palcazu is very different. Here the Amuesha have been in contact with the market economy since the late 19th century. However, this contact was always mediated by one of the "Patrons" of the area who manipulated his knowledge of the market system and his access to manufactured goods to keep the Amuesha in continual debt, and thus dependent on him. In this way, the patron was guaranteed a constant supply of cheap labor. The Amuesha ususally lived in the vicinity of their patron and were thus guaranteed by the patron a piece of land on which to practice subsistence agriculture.

This debt-peonage system is dependent on the fact that little or no money circulates in the region; the patron controls most of the cash. Furthermore, the patron controls most market contacts and consequentially the flow of marketable goods in and out of the region. For this reason, manufactured items are avialable only from the patron and only in exchange for work or marketable produce. Many Amuesha are still illeterate and have little notion of the value of either their labor and goods, and the patron sets exchange rates, prices, and salaries as well as keeping the accounts.

Under this system, the patron encourages the Amuesha to accept manufactured goods and thus fall into his debt. He then manipulates the wages, the accounts and the flow of manufactured goods to keep the Amuesha in continual debt. Besides maintaining a constant supply of cheap labor, this system insures the patron large profits from his commercial activities. The principal patrons of the Palcazu are the decendents of German, Austrian and Swiss immigrants who settled separately from the famous Pozuzo colonization.

The author estimates that in the late 1960's (when he first knew the area), 90% of the adult male Amuesha population was in debt to a patron and spent most of their productive time and energy working off their debts, usually by clearing cattle pastures. One example of this system is the case of Alberto Zehnder of Comparachmas. Hundreds of Amuesha from the communities of 7 of Junio, Santa Rosa de Chuchurras, Buenos Aires, and Alto Iscozacin are still in debt to him. By monopolizing access to the airfield and radio used by SASA airlines, which is the main link to the outside, he controls virtually all commercial activities in the Chuchurras region. Zehnder, is a stockholder of SASA (as are most the patrons in the area); his son is a pilot for SASA; he has a SASA transmitter-receiver in his house; and, while the landing strip is within the community of Santa Rosa de Chuchurras, Zehnder controls it through both the slaughter house and the warehouse he maintains there. Furthermore, the store on his ranch is the only source of manufactured goods in the area. Prices range from 2 to 5 times outside retail prices. In exchange for manufactured goods he pays laborers less than half the minimum daily wage), buys cattle for about half the going price for meat and considerably less than SASA pays and occasionally buys agricultural produce for a quarter to a thrid the going price. He pays slightly higher wages and prices to those who have loyally maintained a debt with him. Through his commercial monopoly and the cheap labor at his disposal, he has ammassed a considerable fortune which he has invested in his cattle operation.

He presently owns over 2000 head of cattle.

Very little of commercial value has been produced on Amuesha-occupied lands, for the following reasons: (1) land tenure insecurity which the Amuesha suffered; and (2) the exploitative system of debt peonage which channeled Amuesha labor to the patron's ranch. However, as the land base became more secure in the late 1960's and early 1970's and as the Amuesha received more encouragement from the government and from private sources, they began to plant commercial crops and to open cattle pastures on their own lands. During these years, many Amuesha went further into debt with the patrons in order to acquire one or two cows with which to initiate their own herds. No state or bank loans were available to them. Alberto Zehnder for example, took advantage of the situation by loaning out his own cows in a kind of share-cropping arrangement called "al partir". In this system, the Amuesha raise the patron's cows in their own pastures running all the risks and paying the costs of raising cattle. When the patron deciees, he retrieves the original cows (or equivalents) and half of the offspring. In 1976, Zehnder had more than 800 head of cattle "al partir" distributed to individual Amuesha in 4 communities. While this system apparently works primarily to benefit the patron, it has allowed albeit at a high cost, many Amuesha to initiate their own small herd and to begin to build an independent economic base. In 1976, there were over 2700 head of cattle scattered throughout the Amuesha communities, including over 1800 of their own and 900 "al partir". Today, the AgroYanesha committed estimates the Amuesha cattle population at over 3000 head.

In 1977 the Amuesha Congress created the AgroYanesha committed in an attempt to combat growing hostility of the patrons and local government officials by promoting agricultural and cattle production in the communities. This project (AgroYanesha) employs three Amuesha full time plus the services of a foreign volunteer agronomist. During the past two years, AgroYanesha has organized trainin- courses for young Amuesha to serve as community extension agents (promotores de ganadería). These agents have been working mainly in improving such commercial crops as rice, cacao and Achiote. AgroYanesha is now experimenting with communal systems for marketing meat

in San Ramon as well as other produce in Pucallpa to the North. Under the guidance of AgroYanesha, several communities have initiated community-owned cattle enterprises. This effort has been followed up and supported by a Swiss-funded cattle propagation and improvement project being implemented by Walter Bistolfe, who lives near Cacazu and is the administrator of the Swiss projects.

Palcazu River Communal Enterprises

Community Name	Hectares of Pastures	Heads of cattle Swiss-donated	Community-don
Loma Linda	50	13	6
Puerto Laguna	55	16	32
Shiringamasu	50	17	5
Villa America (7 de junio)	40	14	10
Centro Esperanza (7 de junio)	16	0	6
Alto Iscozacin	30	0	26

Source: David Tolliday, personal communication
resident agronomist, AgroYanesha

In response to the formation of land-secure state-recognized communities and to the strengthening of an independent economic base within the communities, the patrons have tried a number of measures to reassert their traditional demination over the Amuesha. They have done this by tightening their traditional monopolies. At the same time, however, they have begun to adapt to the changed situation by cutting credit and restricting access to manufactured goods for those Amuesha most actively trying to gain independence. They insist on the repayment of back debt immediately, forcing them to turn over their commercial crops or sell cattle at low prices in order to cancel an outstanding obligation.

Because the patrons are both stock-holders (and therefore preferential customers and clients) of SASA airlines, and owners or users of entrusted

landing strips, warehouses, and radios for communicating with the SASA headquarters at San Ramon, they can and do make difficulties for Amuesha who want to travel independently, sell products in outside markets, or receive shipments of manufactured goods.

On the other hand, the patrons either individually or through SASA have taken advantage of community cattle production by monopolizing the marketing of meat. For example, Zehnder uses the debt-obligation he created with many Amuesha to force them to sell their meat solely through him. He then uses his preferential access to SASA (obtained through stockholdership, kinship with personnel, and greater capital and productive capacity) to convince the Amuesha to sell their meat through him at ridiculously low prices. One of the only ways an Amuesha who lives in the Chuchurras 7 de junio area, has to market cattle is by taking it to Zehnder. The offer he receives depends on whether the Amuesha has been a debtor or worker of Zehnder, in which case he receives a slightly higher price. Zehnder himself classifies the animals into first, second, and third class categories. According to Amuesha who have worked with him, no Amuesha animal has ever been considered first class and only rarely second class -- although their parentage is equal to ehnder's own stock. At the Comparachimas airstrip there is no scale, so that animal weight is calculated by sight, a procedure which has lead to proven "errors" of up to 40 kilos in Zehnder's favor. Finally, Zehnder, like SASA, pays only for the butchered meat, while the head, feet, entrails, and hide are considered the buyer's profit margin. For the first bull marketed by AgroYanesha, another patron in the region offered S/. 28,000 under the above conditions. AgroYanesha then took the bull to Iscozacin by boat, and offered it directly to SASA (which pays a slightly higher price and weights the meat accurately). The price received was S/. 125,000. The riverine traffic by motor boat, which allowed AgroYanesha to take animals to Iscozacin, is also subject to restrictions by the patrons who own the only supplies of motor fuels in the area. They do not agree to sell any significant amounts of gasoline to natives and often limit their purchases to a gallon or two at a time, allowing them only sufficient fuel to return to their communities. Through this control of the marketing system, the patrons have converted a potentially risky and threatening situation in a very profitable one.

In addition to these economic measures, the local patrons have resorted to other political tactics, such as allying themselves with the local officials against the communities and initiating rumours that the community structure itself is "communist" and will lead to the eventual impoverishment of the members. These tactics have caused considerable confusion and division within the communities. It is no surprise, therefore, to conclude that relations betweenthe native communities and the colonist population are very tense at the present time.

AMUESHA COMMUNITIES IN AREA OF INFLUENCE OF PALCAZU I

COMMUNITY	ETHNIC GROUP	LOCATION	CCNN Legal Recogn.	Title # (YR) Demarcated +	POPULATION 1968 fam.	ind.	fa
1. Puellas-Yuncullmas	Amuesha	Cacazu Km 42	yes	#1437 has. (76)	9	40	20
2. San Pedro de Pichanas	"	Bocas Cac.Km 52	yes	#6750 has. (76)	32	154	43
[illegible] Machca Bocas	"	Bocas	yes	no	12	60	
[illegible] Santa Rosa de Pichanas	Amuesha-Cam.	Upper Palcazu	no	+1379 has. (80)	3	18	5
[illegible] Linda	"	" "	yes	+5713 Has. (80)	60	270	61
[illegible] Puerto Laguna	"	" "	yes	included above			21
[illegible] Shiringamazu	"	" "	yes	#2851 has. (76)	27	179	31
[illegible] Alto Iscozacin	" Cam.	R. Iscozacin	yes	#2502 has. (77)	?	?	26
[illegible] Buenos Aires	" Cam..	midlee Palcazu	yes	#3258 has. (76)	?	?	30
[illegible] Santa Rosa de Chuchurras	" "	R. Chuchurras	yes	#2048 has. (76)	15	86	21
[illegible] de Junio	"	Omais R.	yes	#8782 has. (76)	95	530	104
[illegible] Nueva Esperanza	"	"	no	no			37
[illegible] Alto Lagarto	"	R. Lagarto	yes	#1500 (est.) 76			19
[illegible]	"	lower Palcazu	no	no			
[illegible] Renswalo	" Campa	" "	no	no			11
[illegible] Isla Yarina	" "	Palcazu-Pichis	yes	#3899 has. (76)	45	201	
[illegible] Puerto Amistad	"	Pto. Victoria	yes	#4808 has. (76)			
[illegible] Guacamayo	"	Upper Pachitea	no	no			
[illegible] Santa Isabel	"	Upper Pachitea	no	+2475 has. (80)			
[illegible] Dispersed	"	Palcazu-Pozuzo Lagarto	no	no			

[illegible]pulation Data for 1980:

	Fam.	Ind.
Santa Rosa de Pichanaz	12	55
Shiringamazu	63	249
Enock	18	101
Guacamayo	14	87
Santa Isabel	28	137
Dispersed est.	30	150