

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 BIBLIOGRAPHIC INPUT SHEET	FOR AID USE ONLY Batch 66
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1. SUBJECT CLASSIFICATION	A. PRIMARY	Food production and nutrition	AE10-0000-G530
	B. SECONDARY	Agricultural economics--Peru	

2. TITLE AND SUBTITLE
 Viru, land and society

3. AUTHOR(S)
 Vazquez, M.C.

4. DOCUMENT DATE 1964	5. NUMBER OF PAGES 79p.	6. ARC NUMBER ARC
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7. REFERENCE ORGANIZATION NAME AND ADDRESS
 Cornell

8. SUPPLEMENTARY NOTES (*Sponsoring Organization, Publishers, Availability*)
 (In Comparative studies of culture change. Publication)
 (In Columbia-Cornell-Harvard-Illinois summer field studies program, Peru)

9. ABSTRACT

10. CONTROL NUMBER PX-AAE-254	11. PRICE OF DOCUMENT
12. DESCRIPTORS Innovations Land reform Landowners Peru Rural sociology Technological change Trujillo province, Peru?	13. PROJECT NUMBER
	14. CONTRACT NUMBER CSD-296 Res.
	15. TYPE OF DOCUMENT

CSD-276 No. copy 1 of
cornell PV-4-76 054
dist 274

VIRU: LAND AND SOCIETY

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* This paper was prepared for the Comparative Studies of Cultural Change, Department of Anthropology, Cornell University, under contract AID/csd-296 with the Office of Technical Cooperation and Research of the Agency for International Development. The data were collected during June through September, 1964, while the author was instructor for the Columbia-Cornell-Harvard-Illinois Summer Field Studies Program in Peru.

The conclusions are those of the author, and do not necessarily reflect opinions or policies of any supporting agency or organization.

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Background Information

This work was prepared on the basis of material collected by the author, as a member of the "Columbia-Cornell-Harvard-Illinois Summer Field Studies in Peru Program." The program was carried out in three districts, one of them Viru, of the province of Trujillo, Department of La Libertad, between June 15 and September 15, 1964.

The investigation originally intended to attempt to use the geneological method and technique to study the social structure of the town of Viru. Circumstances prevented us from carrying out this plan immediately. ^{1/} We took into consideration, moreover, the fact that one of the most important aspects of the local and regional socio-cultural context is the problem of the agricultural land. This became especially true during the period of our research, because of the promulgation of the Law of Agrarian Reform of May, 1964 (Peru, 1964a) we decided to collect material concerning the agriculture and society of the valley of Viru.

Our research could not limit itself only to the town of Viru because, as will be seen in the development of the project and in the final section of this report, the town and the district of Viru depend, almost entirely, upon the agricultural land tenure system in force in the valleys within the district's jurisdiction.

The material was obtained from the sources of official infor-

mation (District Council, Minister of Agriculture, Viru, Technical Water Administration and others), and from going to the estates to interview their owners or managers, and the directors and ex-directors of the "cooperative," and also the colonos. The participant-observer technique was used for collecting complementary information.

Objective and importance

This paper has as its object to describe and analyze the land tenure system in the valley of Viru and the social implications of that tenure system. Naturally the investigation is not complete, but even so I believe it will have some utility for scholars who are interested in land tenure and perhaps also for the state organizations charged with administering the Agrarian Reform Law.

Methodological Problems

The first problem that arose was the determination of the area to be investigated, due to the fact that Viru is the name of a river, of a district, of a valley, and of the capital city of the district.

It was necessary to be discerning about this matter, because in the available reports, which are of state, semi-state, or private origin, "Viru" is sometimes used to refer to the entire

district, other times only to the valley, and other times only to the town itself. To this problem is added the extreme geographical mobility of the informants, the majority of whom have lived in or depend on activities in different parts of the same district. This permits them to have a general view of the entire district and therefore their reports are not very specific with regard to area.

Another problem is related to the adequate use of the following sources:

- 1) Birth registry of the District Council of Viru. In the registry are inscribed the births which took place within the jurisdiction of the District. There are also some exceptional inscriptions of births which took place in towns belonging to other districts, for example the province of Otuzco.

I believe it necessary to indicate that Viruneros born in hospitals in Trujillo were registered in Trujillo and not in Viru. This custom is common among the "wealthy" families or families of Trujillian origin who have residences in both Viru and Trujillo.

In the same way we find in the registers that there are fewer people born in the rural zone than in the town proper, even though the rural area contains the larger population. This is due to the preference of women who live in the country to give birth in the town where they own houses.

2) Reports of the Ministry of Agriculture. The following have been consulted:

A) Statistics on cultivated areas and statistics on production prepared by the Departmental Office of La Libertad, in Trujillo. The data corresponding to Viru for 1962 are not specified; production is given jointly for the valleys of Viru and Chao. Even though the office has departmental rank, the data that it possesses have been recompiled in relation to the valleys and not to the political jurisdiction. For this reason the area and production of the estates situated on the right bank of the Santa River remain unknown though these haciendas are under the jurisdiction of the district of Viru.

B) Bulletin of the Bureau of Agrarian Inspection and Control - Department of Food Crop Administration (Departamento de Control de Cultivos Alimenticios). The data on Viru for the year 1962 cannot be distinguished because they are integrated with the Chao Valley figures and the total production of the Chao and Viru valleys reported. The reports of this bulletin do not agree with those presented by the Department Office, even though the data of both correspond to the same year.

C) The List of Irrigators made by the Technical Water Administration of the Moche and Viru Rivers. The List is for the year 1961 and is a product of the Trujillo office. The

data from this source refer exclusively to the valley of Viru, and it is for this reason that I have analyzed them in greater detail finding the following deficiencies:

a) Inaccuracy of the names listed in the List; this could be an error of the data-collector or of the typist. We have, for example, Manuola which appears as Manual, Espinales as Espinal, etc. These errors have complicated the identification of the proprietors of the land.

b) The agricultural lands irrigated with subterranean water are not included.

c) The areas indicated for the estates do not correspond in reality to the arable land but the total area of the properties including the non-arable land.

d) It is not specified which lands are worked directly by the proprietors and which are worked under the colono and sharecropping systems.

e) The List has not been brought up to date but continues to consider as proprietors persons who died many years ago, or persons who have sold the property to others, even those who have migrated from Viru.

f) The report of the List is useful for determining the degree of division of property, but not for a study of tenancy, unless the researcher verifies the present reality as has been necessary to prepare the present report.

3) Censuses. I have used the published District totals and the unpublished files of the Census Bureau concerning smaller populated areas within the District from the censuses of 1940 and 1961. With regard to 1940 I should indicate that the population of Viru is enlarged because of the inclusion of the laborers (1,328 men) of the guano islands of Guanape. These men belonged to other district jurisdictions. By chance they were engaged in the seasonal harvest of guano at the time when the census was made. This harvest takes place every few years and, as is natural, for the purposes of this investigation the transitory population of the islands has been omitted. This type of population was not enumerated in 1961.

The 1961 data on population units smaller than the District have not yet been published, but we obtained them directly from the office of the Bureau of Statistics and Censuses of the National Planning Institute.

4) Internal migration. Another problem which I should mention in this section has to do with the internal migration of the population residing in the district of Viru. Essentially, the native Virunero and the foreigner, particularly the latter, are characterized by a high degree of geographical mobility. The migrants to Viru at the beginning have no stability. They change residences frequently, going from estate to estate in search of better working and living conditions. Rare are the

cases of people who have lived more than two generations on the same estate. Consequently, it is difficult to speak about traditional cultural patterns except for the town of Viru where the greater percentage (64%) of the population is native to the town.

Contact between the population of the estates with that of the towns comes about during the numerous local festivals, when administrative actions take place in some district office, when ties of compadrazgo are maintained and, most frequently, when the colonos educate their children in the town schools.

5) As the last problem related ^{to} the subject of research we have the attitude and conduct of the landlords or leaders and of the colonos themselves toward the investigator.

During the period when the material for this investigation was being collected the landowners, colonos and the poones of the estates faced a crisis due to the Agrarian Reform Law. They all exercised forethought and took precautions with the object of obtaining better advantages when the law in question is applied. They were careful about "spies" and therefore the presence of the investigator interested in problems of the tenancy of the agricultural land created an attitude of fear, suspicion, and lack of confidence toward him. At the beginning the proprietors and the colonos considered him an agent sent by the opposing group. This doubt was intensified when the

investigator tried to interview the representatives of each one of the groups in conflict.

For these reasons much information gathered during the first weeks turned out to be partially or totally false. This made it necessary to resort to persons outside the above mentioned groups, but having knowledge of the matter, in order to verify the degree of veracity of the information gathered. In this way it was possible to identify the system in operation and the number of colonos and sharecroppers on the majority of the estates and fundos.

After all these considerations of methodological problems, I believe it convenient to describe, even though only briefly, the district of Viru, to then be able to give more attention to the problem of agricultural land ownership and tenancy in the Viru Valley.

THE DISTRICT OF VIRU AND ITS CAPITAL

1. Geographical orientation

The district of Viru is the largest of the department of ~~La Libertad~~. It is situated right on the coast of northern Peru between the 455 and 530 kilometers of the Pan-American Highway north of Lima. It is crossed from East to West by the Rio Viru and Rio Chao whose tributaries descend from the Andean Province of Santiago de Chuco. The Rio Santa serves as a boundary between the contiguous districts of Viru and Santa, the latter of which belongs to the province of Santa, in Ancash Department. Thus, in the district are located the valleys of Viru, Chao, and the right bank of the Rio Santa.

Its capital is San Pedro of Viru, located in the valley of Viru and known as "the town" in the district.

The islands of Guanapo or Huanape, located opposite the bluff and bay of the same name, are under the political jurisdiction of the district of Viru, a fact which is unknown to almost all Viruneros including the authorities, possibly because the islands are under the administrative jurisdiction of the port of Salaverry. According to Stiglich (1922:516), the islands are 19 miles from Salaverry.

With regard to the means of communication, besides the Pan-American highway which crosses it from South to North and to

which the town is joined by a paved, three kilometer road, the district has unsurfaced, sandy roads and trails which make possible communication with all the estates and population centers of the area.

Magnificent transportation services are provided by trucks, buses, pickups, and collective taxis, which are used to transport passengers and cargo from Viru to Trujillo, Lima, and intermediate stops.

Besides the services mentioned, the Viruneros at any hour of the day use the services of the buses and collective autos that travel over the Pan-American Highway in order to travel to the towns and cities along the coast.

Services of telephone, mail and telegraph function in the town, although the latter two services are very deficient. These same services already existed in 1947 (Nunez P. 1951:57). Two estates have private radio transmitters and receivers.

The district authorities and their offices are concentrated in the town of Viru, capital of the district. Besides the offices of the District Governor, the District Mayor, Justice of the Peace, Court, and the Civil Guard Posts which are found in other district capitals, there are the offices of the tax collectors and of the Technical Water Commission (part of the Ministry of Agricultura). At the Puente de Viru there is a Civil Guard highway traffic control post.

On all the estates there are private coeducational schools which are accredited by the government and in the town there are five primary schools and a coeducational municipal secondary school.

2. Population and occupation

According to the last two national censuses, the population of the district was as follows:

Table Number 1

Population of the District of Viru by valleys and islands

	<u>Viru</u>	<u>Chao</u>	<u>Santa</u>	<u>Isla</u>	<u>Total</u>
1940	4,850	606	605	328	7,389
1961	8,166	602	745	-----	9,513

If we examine the totals in this table we will see that there was a 22.33% increase in population, but actually it was a 36.29% increase due to the fact that in 1940, 1,328 transitory workers were counted. This was explained previously in the paragraph on censuses (page 7).

The above mentioned transitory workers were those who enlarged the numerical difference between men and women, as we will see in the chart which follows.

Table Number 2

District Population by Sex

<u>Year</u>	<u>Men</u>	<u>Percent</u>	<u>Women</u>	<u>Percent</u>	<u>Total</u>
1940	4,828	65%	2,561	35%	7,389
1961	5,078	53%	4,435	47%	9,513

It should be clearly established that, not counting the migrant workers of the guano islands, the district always has more men than women due to the fact that the majority of Andean migrants are male.

The Birth Statistics Register of the District Council of Viru gave us important data on the composition of the population of Viru. With regard to the origin of the parents, the entries of the last three years give us an indication:

Table Number 3

Origin of the Parents

<u>Year</u>	<u>Fathers</u>				<u>Mothers</u>			
	<u>Virunero</u>	<u>%</u>	<u>Outsider</u>	<u>%</u>	<u>Virunero</u>	<u>%</u>	<u>Outsider</u>	<u>%</u>
1961	204	21	276	29	203	21	277	29
1962	228	22	285	28	226	22	287	28
1963	217	23	263	27	203	21	277	29

We see that the greater percent of the fathers and mothers are of extra-valley origin. It should be added that many of those who count as Viruneros are offspring of outsiders settled in the district, so that the majority of the population is of outside origin.

To complete the picture of this section of the population, I present other data on their origin:

Table Number 4

Regional Origin of the Parents

Year	Serranos			Costenos			Solvaticos	
	Fathers	Mothers	%	Fathers	Mothers	%	Fathers	Mothers
1961	212	232	80	63	45	20	1	0
1962	226	230	80	59	57	20	0	0
1963	211	224	81	51	52	19	1	1

Here we see that during the three years the 80% of the parents were outsiders who came from the Andean districts of La Libertad, Cajamarca and Ancash. The majority came originally from mountain estates and hamlets; in practice they are peasants who continue in the same farming occupation under the condition of peones, aparceros, or colonos.

The Costenos come from districts similar to Viru but are not all farmers. Some serve as employees, teachers, police, drivers, masons, etc.

In spite of having heterogeneous origins and differences of interests, the residents of the district have common elements which integrate them socially and culturally. Among those are: agricultural activity, because almost all feel themselves as and identify themselves as farmers; the language and the schools, because all speak Spanish; political partisanship, since, excluding the population center, in the rural zone almost all are or feel

themselves identified with a single political party; the many religious festivals each of which gives the opportunity to more than fifty persons to participate actively as devotees, etc.

It seems that together with the immigrant sector of the Virunera population has come the problem of illegitimate children. This will be treated in greater detail in a future report, but some conclusions based on the birth register may be advanced here:

Table Number 5

Legitimacy and Illegitimacy of the Children

Year	Legitimate			Illegitimate			Totals
	Males	Females	%	Males	Females	%	
1961	108	100	43	141	131	57	480
1962	126	115	47	136	136	53	513
1963	105	105	44	130	140	56	480

As the Table shows, 55% of the children born in the last three years are illegitimate, and the majority of them are the product of extra-marital relations between outsiders.

As has been mentioned earlier, the population of the district is engaged predominantly in agriculture and the following data prove it:

Table Number 6

Occupations of Fathers

<u>Occupations</u>	<u>1961</u>	<u>%</u>	<u>1962</u>	<u>%</u>	<u>1963</u>	<u>%</u>
Farmer	381	79.4	418	81.5	361	75.2
Tractor driver, mechanic	15	3.1	17	3.3	18	3.8
Chauffeur	18	3.8	24	4.7	21	4.4
Merchant	16	3.3	20	3.9	13	2.7
Employee	11	2.3	5	1.0	9	1.9
Specialist: mason, builder, carpenter, etc.	12	2.5	6	1.2	11	2.3
Laborer and journeyman	10	2.1	7	1.4	22	4.6
Barber, tailor, shoemaker	7	1.5	7	1.4	9	1.9
Professional	4	0.8	2	0.4	4	0.8
Fisherman	4	0.8	3	0.6	4	0.8
Police	1	0.2	0		2	0.4
Driver, machinist	1	0.2	1	0.2	1	0.2
Student	0		1	0.2	1	0.2
Musician	0		1	0.2	0	
Undetermined	0		1	0.2	4	0.8
Totals	480		513		480	

During the last three years 79.4%, 81.5% and 75.2% respectively, of the fathers (presumably the majority are heads of households) were identified as farmers, aside from other occupations related to agriculture.

3. Exploitive activities

In the jurisdiction of the District of Viru are found the valloys of Viru, Chao, and Santa (right bank), and a large part of them are exploited by estates and fundos which are characterized by the dynamism of their activities.

One of the most important exploitative activities is agriculture, but in addition, as complementary activities, dairy farming, goat-raising, and aviculture stand out. Cattle farming, which had its culmination in the first quarter of the present century on almost all the estates of the district, is gradually dying out; at present only three estates have dairy cattle and on a small scale. Most prominent in this respect is the hacienda Langucho, in the valley of Santa, where the greatest extension of the cultivation of alfalfa exists. Also the colonos and small proprietors have from two to twenty head of cattle for milk production and the use of bulls for ploughing. The goat herd is for the reproduction of kids which are highly valued for the preparation of the regional meals of the North Coast area.

The estates have horses for the use of their personnel, while the colonos, sharecroppers and small farmers only have donkeys for riding and to use as draft animals. One of the estates has begun rabbit breeding. Guinea pigs and domesticated fowls are raised empirically by most farmers, especially by the colonos. Finally, two small farmers are engaged in bee-keeping and own several dozen beehives.

The characteristics of the most important activity of the district will now be described. According to reports of the residents, agriculture began to be more developed beginning in 1961, especially in the valley of Viru, as a result of the partial solution to the scarcity of water. This partial solution was obtained by using pumps for extracting subterranean water, by technical improvements, and by intensification. The acceptance of the agricultural products in the national market also helped.

Water is still a limiting factor on the production because the rivers that flow down from the mountains are characterized by their irregular volume, because drilling wells and installation of pumps is limited to a certain sector of better-off farmers due to the high cost, and because the owners of estates prevent their colonos from installing wells and pumps.

The estates situated on the right bank of the Rio Santa, in spite of having an abundance of water, suffer a temporary scarcity due to the fact that the main sluice gate at the intersection of several irrigation canals is destroyed during the summer months. According to the report of the administrator of one of the estates, they spend an average of \$7,460 annually on the conservation of the main water gate and the defenses designed to protect the crops planted near the banks of the river.

The estates of the district fulfilled and are fulfilling a very important role due to the technological improvements and intensification of their agricultural operations, especially in the last two years. Thus, of the twelve formally established agricultural businesses, eight are under the direction of agronomists, the majority of them young, who are giving a great modern impetus to agriculture, although they leave much to be desired in the social aspect, as will be demonstrated when the valley of Viru is dealt with in detail.

The work of plowing, weeding, control of plague and diseases and harvesting is carried out thru the use of modern machinery and the results are superior in quality and quantity to those obtained in the traditional way with the use of animals and legions of day-labourers. Parallel with the new techniques of working new types of tillage and techniques of fertilizing have been introduced. These changes, which also have been accepted by the colonos and aparceros of the estates, are imitated by the small farmers.

There now exists the aim and experiments to obtain up to two crops per year on the same land, in spite of the fact that the less optimistic feel satisfied to obtain only three crops in two years because they know that the harsh winters retard the crops.

The following is a Table which presents production in the valleys of Chao and Viru. These are partial data of the district

because the Table does not include the right bank of the valley of the Rio Santa where two rice and maize producing estates are located. The Table will nonetheless serve as a reference point to reinforce my recent findings in Viru.

Tablo Number 7

Areas of cultivation in the valleys of Viru and Chao, compared to the areas of the Province of Trujillo, of the Department of La Libertad and of the Peruvian coast in general.^{2/}

Food Crops	Viru-Chao Estados	Prov. Trujillo Estados	Dept. Libertad Estados	Peru coast Estados
Maize	3,388.50	10,735.70	12,059.10	61,012.47
Sweet Potato	678.99	1,691.09	1,697.09	6,666.16
Kidney bean	421.94	2,557.52	3,586.02	18,562.73
Mandarin	287.76	957.35	968.85	3,537.07
Orchard	141.74	673.75	1,389.28	12,826.38
Rice	131.45	784.83	18,882.22	58,448.48
Potato	117.60	138.77	138.77	4,839.35
Pea	79.00	116.02	116.02	1,501.51
Peanut	42.15	180.45	180.45	340.11
Tomato	35.79	246.35	250.85	5,661.83
Watermelon, papino and strawberries	34.35	42.35	72.35	1,343.48
Peppers	30.25	45.15	46.15	1,275.49
Citrous fruits	30.30	37.14	47.14	3,939.45
Vegetables	29.01	628.49	670.99	5,661.83
Banana	10.80	363.60	382.10	4,103.76
Green ear of maize	10.00	12.00	12.00	1,204.23
Squash	5.00	11.00	11.00	1,275.49
Olive	3.00	415.05	415.05	1,233.54
Miscellaneous	3,475.14	3,744.60	3,912.60	12,023.73

Table 7 continued
on next page...

Table 7 continued

	Viru Chao Estates	Prov. Trujillo Estates	Dept. Libertad Estados	Peru coast Estates
<u>Industrial</u>				
<u>crops</u>				
Cotton	148.27	148.27	1,596.77	174,475.31
Sugar cane	45.65	32,624.21	33,051.52	68,639.74
Castor oil beans	3.60	4.48	174.48	348.58
Miscellaneous	5.52	486.06	509.06	1,764.48
<u>Pasture</u>				
<u>crops</u>				
Sorghum	1,030.50	1,105.55	1,204.55	1,783.88
Alfalfa	61.30	2,740.76	4,070.26	20,843.65
Gramalote	16.00	443.57	504.07	9,461.71
Others	32.50	69.17	253.67	6,064.23
<u>Sectional</u>				
<u>totals</u>				
Food crops	8,852.77	24,791.09	46,433.41	213,616.06
Industrial	202.04	33,271.02	35,340.83	247,959.42
Pasture	1,140.30	4,559.83	6,239.33	47,142.62
<u>General</u>				
<u>totals</u>				
	10,195.11	62,621.94	88,013.57	508,718.10
<u>Cultivated</u>				
<u>area</u>				
	12,436.52	66,614.65	94,398.28	536,095.18
Percent	71.18	37.22	49.19	39.85

The valleys of Chao and Viru occupy 4th place with regard to food crops, comparing them with the rest of the valleys of the coast. The rank order is as follows:

1st	Casma - Sechin	with	84%	of	food	crops.
2nd	Jequetepeque	"	78%	"	"	"
3rd	Tumbes	"	73%	"	"	"
4th	Viru	"	71%	"	"	"

This situation makes the district of Viru one of the main suppliers of the cities of Trujillo and Chimbote, especially for the diversity of its crops, since, as we have already seen in Table Number 7, the district cultivates almost all food products with the exception of wheat.

Among the valleys of the Department of La Libertad, Chao and Viru are first in area cultivated with green corn, pea, potato, citrus fruits, watermelon, pepino, peppers and sorghum; the second place in the cultivation of maize, sweet potato, squash, peanut; and in third place in the cultivation of kidney bean, manioc and tomato. On the national level these same valleys are in first place in the cultivation of sorghum; in fourth place in the cultivation of pea and sweet potato; in fifth place for manioc, in eighth for peppers and potato, and in tenth for watermelon and pepino.

According to the reports of the Departmental Service of La Libertad, of the Ministry of Agriculture, ^{3/} the areas of cultivation and the yield of the production in the valleys of Chao and Viru in 1962 were as follows:

Table Number 8

Areas of Cultivation and Production of the Valleys
of Chao and Viru in 1962

Product	Area	Yield of Production		Totals
		%	Metric tons/hectare	
Maize	4,431.52	53.79	2.800	12,408.26
Sweet potato	933.44	11.33	16.000	14,935.04
Rice	685.32	8.32	3.312	2,269.78
Broom-Corn	618.50	7.51	2.116	1,308.75
Manioc	321.59	3.90	15.000	4,823.85
Cotton	238.97	2.90	0.800	191.18
Alfalfa	191.74	2.33	20.000	3,834.80
Orchard	167.84	2.03	17.875	13,000.14
Tomato	93.52	1.14	12.000	1,122.24
Squash	93.30	1.13	1.000	93.30
Pea	90.00	1.09	2.000	180.00
Kidney beans	72.33	0.89	2.000	144.66
Pineapple	65.49	0.80	16.000	1,047.84
Vegetables	53.53	0.65	13.000	695.39
Peppers	35.00	0.42	1.400	49.00
Sugar cane	24.17	0.29	100.000	2,417.00
Asparagus	23.24	0.28	8.000	185.92
Potato	22.50	0.27	2.300	51.75
Peanut	19.60	0.24	1.500	29.40
Lentil	17.50	0.21	0.800	14.00
Gramalote	16.00	0.19	20.000	320.00
Popino (melon pear)	8.60	0.10	1.200	10.32
Castor oil beans	6.60	0.08	1.500	9.90
Pasture crops	6.00	0.07	20.000	120.00
Olives	3.00	0.04	-.-	-.-
Totals	8,239.30	100 %	-.-	49,263.02

The data of this Table and that of the preceding (Table Number 7), in spite of being for the same year, differ noticeably with regard to the area under cultivation with the exception of the first two crops (corn and sweet potato); they also differ in the order of hierarchical importance.

According to the reports collected by the author, the order of importance of the agricultural products between 1963-64 was: : maize, broom corn, rice, sweet potato, manioc, potatoes, asparagus, alfalfa, citrus fruits, sugar cane, pineapple, banana, cotton, beans and peas, etc.

The crop which is cultivated most extensively on all the haciendas and farms is the hybrid corn^{4/} whose cultivation has been mechanized and intensified through the use of machines for plowing, sowing, weeding and shelling. Recently mowing machines and mechanical grain graders have been introduced. The district average yield for hybrid corn is approximately 3,800 kilograms per hectare; this includes the production of the estates and of their colonos. The Tanguche, Empresa Agricola Viru, Santa Elena and El Carmelo estates have the highest yields. The average production of the Tanguche hacienda in 1963 was 4,900 kilograms per hectare for an area of 171 cultivated hectares; its lowest production was 3,838 kilograms and its highest was 6,075 kilograms per hectare. The yields of the Empresa Agricola Viru in 1963 were 3,737 kilograms on sandy soil and 3,960 kilograms on fertile soil for an area of 150 cultivated hectares.

Many colonos obtain yields similar to those of the estates, but due to the percentage which they must give to the estates it appears that their yields are smaller.

In 1963 the average rate of exchange of the corn was \$.06 per kilogram on the farm; during the present year it reached the record price of \$.09 per kilogram, but in September it had gone down to slightly over \$.06 per kilogram. The majority of the producers prefer to sell their crops in the farm itself and avoid the problems of transportation and the insecurity of the fluctuations of the market price.

Broom corn, locally called maicillo, is the second most important crop of the district as, with the exception of two farmers, everyone cultivates it on increasingly large areas. This crop is sent on the plant to Lima where the seed and fiber are extracted to be used in the manufacture of brooms.

Rice is preferentially cultivated on the estates found in the valley of Santa. The cultivation of this cereal seems to be decreasing due to state control, as only the State can buy it and it does so at a fixed price.

Sweet potatoes, manioc, and potatoes are preferentially cultivated in the valleys of Chao and Viru.

Asparagus is cultivated in the three valleys on a surface area which embraces approximately 400 hectares of plants.

The major production of citrus fruits is in the valley of Viru where there are numerous orchards planted with different varieties of oranges, limes, tangerines and lemons. The largest plantings of bananas are found in the valleys of Viru and Santa.

Finally, kidney beans, peas and lentils are cultivated in the three valleys.

4. Uncertainty in the Estates of the District

It appears that since 1962, faced with the imminence of the Agrarian Reform in Peru and the fear of losing their properties, the landholders began to be interested in their real property which during many years had been maintained undivided and indirectly exploited.

It is very strange to find ex-diplomats and prominent politicians of previous regimes as owners or managers of estates, all interested in administering the Agrarian Reform Law in accordance with their vested interests. Currently they are occupied with two matters: legalize their titles and recover the greater part of their lands that were in the power of colonos or aparceros. Naturally the fundamental objective is to prepare themselves technically and legally to evade the effects of the execution of the Agrarian Reform Law and to obtain "legally" better advantages from it.

In the legal and technical aspect, these proprietors have taken the following measures:

a) Boundary revision. Two cases are known of recent conflicts between estates about boundaries.

b) Division and partition of the farm lands. The haciendas, property of inherited estates, are beginning to be divided among their owners. Thus, for example, in 1964 in the Chao valley the Hacienda Buenavista was first divided among three principal inheritors. Two of these inheritors distributed their inheritance among three and four successors respectively, while the third property has been conserved as the property of an important banking and commercial firm of Lima. In Viru valley the Hacienda Carmelo was divided into three parts: Carmelo, Santa Elena and Huancaco. In 1962 Carmelo was divided into two properties: Carmelo and Maria Laura. During 1964 Santa Elena has been divided among four inheritors. Huancaco is still intact but almost two-thirds of it is occupied by colonos.

c) Revision of the contracts and the eviction of the colonos who lack contract or have not complied with some clause of the contract.

d) Irrigation of uncultivated land. The proprietors of haciendas have installed water pumps and have made it possible for their relatives who were colonos to do the same, with the aim

of irrigating uncultivated land. By these means, within the last three years new farms have been formed, among others Santa Maria, El Palmo, Quevedo, etc. These lands have been ceded to colonos in exchange for the fertile lands which the hacienda owners wanted to recover; in some cases the reclaimed lands have been sold.

e) Establishment of business associations or agricultural societies. To facilitate their commercial operations, between 1963 and 1964 the haciendas have established many business associations, whose names are inscribed on their private vehicles. Among the most recently founded business associations we have: Negociacion Agricola Ortiz de Zevallos, Agricola Chao S.A., Neg. Agric. Santa Elena, Compania Agric. L. Ganoza S.A., etc.

f) Sale of the lots of land to the colonos who occupy them. Few have accepted this transaction.

g) Modernization of exploitation by means of the investment of capital and employment of new techniques and crops, with the consequent increment of production.

h) Plans to establish enterprises for the industrial transformation of the agricultural products, for example a canning machine that would operate within the hacienda itself, in order to take refuge in exemptions under the Agrarian Reform Law. (Art. 38-39)

In regard to recovering land occupied by the colonos, the proprietors have had recourse to the following two methods:

exchange of lands and compensations. With the first method, the owners suggest to the colonos that they exchange the lands they occupy for other, usually situated in less fertile places or on the boundaries of the hacienda. In the cases of resistance to the exchange, the colonos have been offered compensation, as in the valley of Viru where \$37.50 has been offered per fanogada (3 hectares) of land vacated. In the haciendas of the valley of Chao up to \$1,492 has been paid for compensation for 16 hectares.

In order to protect themselves against these machinations the colonos have organized themselves in "cooperatives" which practically are defense organizations for their members. "Cooperatives" have been organized on all but four of the haciendas in Viru District. The largest of these "cooperatives" which has secured official recognition from the government, is the "Agricultural Cooperative of the Valley of Viru and Chao Ltd, No. 81." As would be supposed the Agricultural Cooperative has the responsibility of defending the colonos and aparceros of both valleys every time they have become involved in a conflict over land rights. During the month of September of 1964 it actively participated in the defense of a colono of the Hacienda Bellavista which terminated in a conciliatory arrangement.

The central cooperative and its affiliates on the various estates all have their respective constitutions and by-laws. They operate independently of one another except when they join

together in defense of some member. One estate cooperative has purchased two tractors for the use of its members, which it also rents to the other farmers. They also endorse the requests for loans made by its members to the Banco de Fomento Agropecuario del Peru. Another of the cooperatives has planned to solicit bank loans to install four strong pumps to extract underground water.

It seems that the cooperatives in question are and will be the entities which promote change, especially in the future when the colonos are free of the haciendas and become proprietors of the lands which they occupy at such a disadvantage. The cooperatives can substitute for the haciendas as agents of change in such a way that the colonos will maintain themselves at the same technical level which large proprietors show.

THE VALLEY OF VIRU

1. Generalities

The valley of Viru is situated between the kilometers 495 and 505 of the Pan-American Highway north of Lima. Its name is that of the river which formed it and which has a drainage basin of 1,300 square kilometers, with discharges of water of an average of 147,200,000 cubic metrics annually; these waters bring with them "magnificent mud" much appreciated by the farmers (Santa Maria, 1958, pp. 5, 7 and 47). The valley has a spring climate and is considered as the most fertile of the district.

The capital of the district of Viru is situated in this valley on the left bank of the river and is known by the name of "town", with a total area of 420,000 square meters (Nunez del Prado, 1951:6).

With regard to communication with the towns in the Andes, the Viru Valley does not constitute a valley typical of the Peruvian coast, because it is not used as a gateway by the mountain towns, as occurs in the majority of the coastal valleys such as Chancay, Huaura, Pativilca, Santa, and Rimac. This does not happen in the Viru Valley because it is short in comparison to those mentioned. There are, moreover, no important population centers in the upper part of the valley, where there are large

cattle raising manors, Carazbamba and Uningambal. It is true that historically the peasants from the interior traveled the Viru Valley route before the highway was constructed between Trujillo and Otusco. Now they prefer to communicate directly with Trujillo, the capital of the department and the most important center in this part of the country. With the exception of the inhabitants of Carazbamba and Uningambal, therefore, the rest of the natives who migrate to the Viru Valley from the interior portions of La Libertad Department travel through Trujillo on motorized vehicles.

The population is mestizo, representing a true fusion of social groups of different cultural origins. There are mixtures of Asians with native and Andean Indians, of Andean mestizos with local mestizos, and Europeans with Asiatic-indigenous mestizos, etc. This diversity of ethnic and socio-cultural origins causes this population to be considered as belonging to the "coastal" group whose characteristics are very difficult to specify.

The "Virunenses"⁵¹ residents of the town are farmers, the same as the rest of the population of the district, but naturally in a smaller proportion, as the study carried out by the Cornell Peru Project in 1960 demonstrates. According to this analysis 63.5% of the family heads are farmers and 16.9% work as chauffeur, shoemaker, bricklayer, barber, tailor, carpenter, policeman,

professor and others (Gherzi and Dobyms, 1961, p. 153). To this must be added, based on knowledge of the place of origin of the surnames existing in Viru, the 80% are originally of other communities and that the majority of the present Virunenses are descendants of outsiders.

2. Population of the Viru Valley

According to the national census of 1940 and 1961, the population is as follows:

Table Number 9

<u>Year</u>	<u>Town</u>		<u>Countryside</u>		<u>Totals</u>
1940	2,573	53.08%	2,277	46.95%	4,850
1961	2,647	32.41%	5,519	67.59%	8,166

The population of the valley of Viru is divisible into urban and rural. The first corresponds to the town and the second to the countryside, including the haciendas of the valley.

In 1940, the urban population was greater than the rural by 6.13%, while in 1961 the situation was reversed and the rural became larger than the urban by 35.18%. Comparing these data with those of the country as a whole we have:

Table Number 10

<u>Year</u>	<u>URBAN</u>		<u>RURAL</u>	
	<u>Peru</u>	<u>Viru</u>	<u>Peru</u>	<u>Viru</u>
1940	36.1%	53.1%	63.9%	46.9%
1961	47.3%	32.4%	52.7%	67.6%

An interesting phenomenon is observed. While the rural population of the country has decreased by 11.2% the rural population of the Viru Valley has increased by 20.5%. This fact contradicts the criterion of the development specialists in the sense that the decrease of the rural population is considered an index of the development of a society.

3. Farm land and the Water Shortage

Viru society is essentially agricultural and, as a consequence, it places a high value on cultivable land with irrigation, not just as a means of prestige and social status but also as an exploitable resource. All the inhabitants of the valley want to possess land, even as usufructuaries, even those who are not farmers and have other occupations, as is the case with the police and teachers.

Since land is scarce and so coveted, obtaining it and keeping it gives rise to frequent conflicts. Lawsuits concerning land are frequent and most often due to problems of inheritance, which has determined that many properties are maintained undivided. Of 467 proprietors, 77 are in fact collective owners of undivided estates -- heirs who maintain long and costly trials before the tribunals. In one of the most important periodicals of the city of Trujillo, ^{6/} on a randomly selected day we have found a total of fifteen judicial notices concerning the adjudication of cases of persons

dying intestate, and legal advertisement of heirs in testate cases in the province of Trujillo alone. Although this province has 225,140 inhabitants, and the District of Viru has only 9,513 inhabitants (4.2%), no less than three cases in fifteen pertained to Viru (20%).

Sometimes the land constitutes an element of disintegration for the family unit. This we discovered when we collected genealogical material and the informants referred to some members of the family who had been alienated by the division of inheritance.

It is necessary to refer to the methods employed to acquire land as property. The usual ones are inheritance, purchase and usurpation. The major part of the medium and small proprietors have acquired their lands through inheritance. Since descent is bilateral, children have the right to paternal and maternal inheritance in the proportion that the law establishes. If children are lacking or are disinherited, the consanguineous relatives closest to the deceased inherit. As we already said, conflicts among heirs are frequent, especially among children of men who have offspring by more than one woman.

Although it seems incredible, without taking the haciendas into consideration, since 1910 the majority of the agricultural lands are controlled by outsiders or their descendants who have acquired them through purchase. Thus, three of the five largest farms that surround the town were formed through progressive

purchase of parcels whose former owners agreed to sell them voluntarily or involuntarily. One of the activities that has permitted outsiders to progressively take possession of farm lands has been that of the retail grocer in the town itself. In most cases the farmers accepted credit in kind or money with their real property as guarantee, and on not being able to repay they ended up transferring or selling part or all of the farm to the creditor.

In Viru many cases of usurpation are known. The proprietors of good faith were surprised by those covetous of land who, armed with their political and social power, hid the original property titles or caused fictitious sales to appear on the record.

Farm land alone has little value if it lacks sufficient water for irrigation.

The use of water from the Viru river is regulated by the National Government through the Minister of Agriculture, which has the Technical Water Administration, whose personnel is in charge of the control and distribution of irrigation water. In the town an office of this agency has been installed. Each farmer registered in the List of Irrigators receives a water quota in accordance with the size of his plot. In the time of the floods the farmers use the water freely, but not in the months of scarcity (between September and November) or during

the dry period in the Andean region. During the period when the river water is lacking, the small proprietors who have their plots next to the town buy from the Municipal Council which is called the "town lot irrigation."

Water is another factor leading to social disintegration, especially in dry years. Conflicts are produced among neighbors or occupants of the same area, who generally are relatives, due to the eagerness to be the first to use the most irrigation water. This type of tension has been diminishing during the last few years due to the increase in the use of underground water.

In 1958 began the installation and use of motor pumps for the extraction of underground water. At present sixteen haciendas and farms of the valley have their own installations (a total of thirty-six); the Santa Elena Hacienda alone has six, and two farms irrigate only with underground water, so that they are not even inscribed in the List of Irrigators.

Also the colonos of four haciendas have pumps installed; the greatest number of these belong to the Hacienda Huancaco. On the rest of the haciendas pumps were prohibited until 1964.

In spite of the constant increase in the use of underground water, the farmers prefer river water because they consider it of better quality for farming because of the silt it brings. It is for this reason that the farmers periodically send memoranda to the Government requesting the construction of a dam. The last

time they did it was on August 17th, 1964 and they requested that the construction be carried out in the upper part of the valley, in the place called Caray.

The farmers of the valley of Viru do not have confidence in nor hope of receiving benefit from the famous government irrigation project of Chao and Viru and which, according to the farmers, has been in the planning stage for more than forty years. Actually the study of the project in question began in 1909 (Santa Maria, 1958:37), although the newspapers of the capital announce that the irrigation has been financed and work on it will soon be begun.

4. Distribution, Concentration and Division of Farm Land

In the first place we should be definite about the discrepancies concerning the amount of land under cultivation in the valley of Viru. The sources of information about this matter are:

- a) Technical Water Administration of the
Rio Viru, agency of the Ministry of
Agriculture (1961) 16,407.46 hectares
- b) Agrarian Inspection and Control Bureau
Agency of the Ministry of Agriculture
(1962) 12,436.52 hectares

- c) Departmental Agricultural Service of La Libertad, agency of the Ministry of Agriculture (1962) 7,063.94 hectares
- d) Dr. Nunez del Prado (1951:9) estimation (1947) 8,000.00 hectares
- e) Agricultural Engineer Santa Maria author of the work Irrigation of Chao, Mocho and Chicama (1958) 8,710.00 hectares

These numbers indicate great discrepancies, making notorious the difference between the three agencies of one and the same Ministry. We will here discuss the data corresponding to the first and last source, leaving the other two aside because we do not know what procedures were used to obtain their estimates.

The data of the Technical Water Administration of the Rio Viru, as we indicated in the first section, suffer from the defect of indicating very extensive areas for the haciendas, in some cases up to twice the actual cultivated area. It appears that hacienda owners and managers have taken care to exaggerate the acreage of their lands with two aims: to receive a larger quota of irrigation water and, with expectations of expansion by converting arid land into cultivable land.

The data concerning the medium and small proprietors come closer to the truth.

Apparently, the data concerning the amount of land under irrigation which most nearly coincide with reality as of 1964 have been provided by Ing. Santa Maria, who indicates an area of 8,710 hectares with an excess of 1,000 hectares over the capacity of "optimum irrigation" of the Rio Viru. His estimate is based on the annual discharges of the river which turns out to be an average of 147,200,000 cubic meters of water, which theoretically can only maintain an area of 7,360 hectares, but since the various plants and soils require different amounts of water, it is possible that 8,700 hectares may actually be irrigated.

Now, comparing the report of the List of Irrigators with reality in 1964, we have reached the conclusion that in the valley of Viru there are 9,250.95 hectares of cultivated land, taking into consideration lands with all types of irrigation. This area represents only 2.8% of the total area of the district (332,600 hectares, ^{8/}13.9% of the cultivated area of the province and 9.8% of the cultivated land of the whole Department.

The man-land ratio is 1.1 hectares of cultivated land per capita in the Viru Valley.

The distribution and concentration of land in Viru Valley using the classification employed by the Agrarian and Housing

Reform Commission of Peru, can be summarized as follows:

Table Number 11

Classification by Area	<u>Properties</u>		<u>Proprietors</u>		<u>Area</u>	
	Num- ber	%	Num- ber	%	Hec- tares	%
Minifundia up to 5 hectares	279	59.7	204	77.6	334.68	3.6
Family units between 5 & 10 hectares	60	12.9	27	10.3	181.46	2.0
Medium properties between 10 and 100 hectares	88	18.8	23	8.7	609.10	6.5
Large properties (Fundos) between 100-500 hectares	27	5.8	5	1.9	1104.04	11.9
Very large properties (Estates) over 500 hectares	13	2.8	4	1.5	7021.66	75.9
Totals	467	100%	263	100%	9250.94	100%

This Table shows evidence of a great imbalance in the distribution of property. On one hand, predominating by their area, are the large or very large properties which represent 87.8% of the total area and belong to only 3.4% of the proprietors. At the other extreme are the minifundia which occupy 3.6% of the total area and belong to 77.6% of the proprietors. This result is more discouraging upon discovering that in this last group

31.5% possess only 0.52% of the cultivable area, with a surface area of less than 1 hectare in each property.

Between the two extreme groups are found the family units of 5 - 10 hectares, and the medium sized properties of 10 - 100 hectares each. This group represents 8.6% of the total surface area and 19% of the total number of proprietors.

There is no relation between the number of properties and proprietors such as that believed to exist by the Agrarian and Housing Reform Commission of Peru (1961:13) when considering the distribution of farm land on the coast. It takes the percentage of properties to refer also to the proprietors as if each property belongs to one proprietor. In reality, it did not take into consideration the fact that the proprietors who appear in the List of Irrigators can be owners of one or more lots situated in different sections of the valley.

In Table Number 11 it is seen that the number of properties is more than the number of proprietors, because in the valley of Viru there is a tendency toward the concentration of farm land through purchase, inheritance, marriage and other means.

The breaking up and the concentration of property are so marked in Viru it can be easily seen in the group of family units of 5 - 10 hectares and medium proprietorships of 10 - 20 hectares. Of the forty-one proprietors (Table Number 11),

fifteen each have one parcel, while the other 26 possess a total of 87 lots whose dimensions vary between 0.15 and 1/4 hectares. Only one of the twenty-six is proprietor of eight lots with a total of 11.86 hectares.

Concerning the fractionation of the land, without taking into consideration lands farmed by colonos and aparceros, we have the following summary:

Table Number 12

Classification by Area	Properties		Surface Area	
	Number	%	Hectares	%
Minifundia up to 5 hectares	392	85.8	549.02	5.9
Family units between 5 - 10 hectares	32	7.0	216.72	2.3
Medium properties between 10 - 100 hectares	20	4.4	708.52	7.7
Large properties between 100 - 500 hectares	9	2.0	1,782.52	19.3
Very large p properties of more than 500 hectares	4	0.9	5,994.16	64.8
Totals	457	100%	9,250.94	100%

This Table proves that one of the major agricultural problems of the Viru Valley is the problem of the fractionation of the land, by which 85.8% of the properties are minifundia which represent only 5.94% of the total area. Within this group are 195 tiny properties (42.7%) of less than a hectare. The percentages of medium proprietorships and of family units are barely 4.6% and 7.7% respectively.

There is a total of only thirteen large and very large properties which represent 64.8% of the cultivated area. In

reality, however, as we shall see when we consider tenancy, 65% of these lands are farmed by colonos and aparceros, that is to say they also have been subdivided, but happily the mean surface area for each colono is 7.6 hectares.

5. Tenancy

With regard to tenancy there are two types of exploitation, direct and indirect, whose quantitative analysis is the following:

Table Number 13

Exploitations

Classification by Area	Direct		Indirect		Surface Area	
	Hectares	%	Hectares	%	Hectares	%
Minifundia up to 5 hectares	327.24	11.1	17.42	0.3		
Family units between 5 - 10 hectares	176.13	6.0	5.33	0.1	181.46	
Medium properties between 10 - 100 hectares		15.3		7.0		
Large properties between 100 - 500 hectares	1,465.91	49.9	2942.09	46.6	4408.00	
Very large properties of more than 500 hectares	520	18.0	2904.08	46.0	3424.08	
Totals	2,938.84	100%	6312.10	100%	9250.94	100%
		31.77%		68.23%		100%

Direct exploitation is carried out by the property owners themselves (31.8%), and indirect exploitation is realized through the systems of renters, colonos, aparceros, and peon-serf on 68.2% of the land.

Before analysing the forms of exploitation, I will indicate the different types of properties.

I have already said that in Virunera society there exists a marked tendency towards individual property and that there are various ways to acquire it, however we must enlarge on this.

According to Peruvian laws, land can belong to either males or females in perpetuity; even when the woman marries her real property continues under her single or married name. This is the origin of the concentration of fractionated lands under the property of one single family.

The proportion of properties by sex would be more or less equivalent, but it happens that properties acquired through purchase during conjugal life go under the name of the husband, so the majority of proprietors are men. Besides, men have more opportunities to buy real property than women, who depend on their fathers, brothers or husbands; or it is the woman who show a greater tendency to sell the property they obtained through inheritance.

The co-proprietorships are found in the cases of undivided proprietorships which are sometimes the result of

mutual accord and other times the result of judicial disposition. The properties are individually exploited when they are divided among the heirs; other times the inheritors agree that one of them be in charge of the exploitation and that the profits be divided among them; or two or more proprietors sow alternately on the farm land or exchange land.

Within family property, some fathers, self identified as far-sighted, acquire properties in the name of their sons, but the fathers themselves administer them. It also happens that when a husband or wife dies the other continues using the property which remains as inheritance, without dividing it among the heirs although they have reached their majority.

It is important to add that there are many cases of small and medium proprietors who, at the same time, are lessees of other real property and also colonos on the neighboring haciendas. Under this formula there are individuals who are able to farm large areas of cultivable land.

After indicating the different types of property, we shall begin to refer to the two forms of exploitation.

The minifundia constitute true family proprietorships that are worked as directly by their proprietors, such as fruits and vegetable gardens.

The medium proprietors, in general, use temporary salaried workers which they recruit in the town when needed.

The large properties constitute true enterprises of production, both in their organization and in their mode of operation.

The indirect exploitation is effected by colonos and aparceros. Following are the percentages that correspond to each one:

Table Number 14

Indirect Exploitation

<u>Area</u>	<u>Arriondo</u>	<u>Colono</u>	<u>Aparcero</u>	<u>Undeter- mined</u>	<u>Totals</u>
Minifundia up to 5 hectares	3.2	4.01	--	10.21	17.42
Family units between 5 - 10 hectares	--	5.23	--	--	5.23
Medium properties between 10 - 100 hectares	388.18	55.00	---	---	443.18
Large properties between 100 - 500 hectares	1,604.28	1,139.00	204	--	3,047.28
Very large properties, over 500 hectares	--	2,898.89	---	--	2,898.89
<u>Totals</u>	1,995.66 31.6	4,102.13 65.0	204 3.2	10.21 .16	6,312.00 100

As we see in this Table, 31.6% of indirectly exploited lands are under lease. Their managers are called lessees and use the property according to the conditions of the respective contracts. It is notorious that they assume the authority of the absent proprietor, in the majority of cases. Almost all are small capitalists interested in agriculture and coming from the cities of Trujillo and Lima. The new modal type of lessee is that of being represented by agricultural societies or businesses, that is to say the union of various capitalist partners who exploit the land through the administration of one of the stockholders, or using an employee called "manager" or "administrator" of the business.

In the above Table, it is also seen that almost all the lands exploited under lease correspond to the medium and large proprietors; this indicates to us that the exploitations are oriented toward the produce markets where the investors try to obtain the greatest profit from their capital, undoubtedly superior to that obtained in their place of origin. This they achieve through careful investment in techniques and selection of agricultural commodities which are in demand in the markets.

Another characteristic of the lessees is that they try to have the indispensable number of braceros or "stable" workers on the hacienda and prefer "contract" workers under a "contractor" to perform a certain labor and in a fixed period of time of no more than a month.

Continuing the analysis of the Table we find that 65% of the lands being exploited indirectly are farmed by colonos. Although there are legal dispositions which require written contracts between the managers of the lands and the feudatorios, in the majority of cases the system functions by means of verbal contracts between both parties, for which reason there still ~~exists~~ exists the payment of the "third part" and "fourth part," even though the law only indicates the fifth part of the gross production.

Under the colono system, the proprietor or manager hands land with the respective water right over to the colono for an indefinite or definite time in exchange for receiving the third, fourth, or fifth part of the gross production that is verified by the general manager of the lands. The amount of land cultivated by the colonos varies from one hectare to thirty hectares, but the average is 7.5 hectares per colono.

The majority of the colonos exploit the land in the fashion of a family farm, with the direct participation of of the members of the family. There is, however, a sector of well-to-do colonos who act like the lessees and use salaried laborers; furthermore, they make use of sub-colonos and aparceros. In these cases the colonos act also like the technicians in charge of the supervised credit programs inasmuch as, besides providing the land parcels, they provide funds necessary for

investing in the production of each crop, and control the technical aspect of the work. Thus, the colono is advised by the technicians or administrators of the hacienda who are equally interested in obtaining better harvests.

Some medium and large proprietors use their own sons and relatives as colonos.

Among the colonos, relatively well-to-do colonos, and medium proprietors, it is very common to use peons, whom we would call peon-serfs because they are not their own masters inasmuch as they depend on the will of their patron, even though they receive a salary and a piece of land on which to construct a hut and raise animals.

It seems that this status of "patron" is beginning to be widespread among the colonos.

Three and twenty-two hundredths percent of the indirectly exploited area is under the aparcerero system. This is relatively small compared with the two preceding systems, but this percentage represents only that which is known, not that which is really practiced, especially on the medium sized properties whose managers hide it to circumvent the legal dispositions which prohibit the eviction of aparcereros, as they evict them after each harvest to prevent the aparcereros remaining long on the same lot which might in future give them a legal right to claim it. For this reason the present aparcereros are roving,

moving from one lot to another in accordance with the notions of the proprietor.

Under the aparcero system the proprietor grants to the aparcero parcels of land with the respective water right and provides him with seeds, a tractor, or a yoke of oxen. At the same time, the aparcero dedicates his labor and cares for the crops until the harvest. At the end of the season they divide the gross harvest between the two. In the case of use of aparceros by the colonos, the colonos and their aparceros divide the crop after the hacienda owner has received his percentage of a "fourth part" or "fifth part" of the gross product.

As the aparcero is the poor farmer and his economy depends on the harvest, usually he is "provided for" (given an advance of money and/or food) by his capitalist patron for the support of his family. This debt is paid at the time of crop distribution.

Finally, we should indicate that there is a whole range of combinations of renter-colonos, colono-aparceros and aparcero-peon-serfs.

6. Innovations and Changes in the Viru Valley

During the last eighteen years important changes have occurred in the valley and town of Viru, especially in agriculture which, in turn, has caused changes in other areas.

Agriculture is a way of life and an occupation for more than 80% of the residents of the valley.

Two of the determining factors in the changes in agriculture have been the demand for the valley's products in the markets of the large cities of the Peruvian coast and the modern methods of transportation and communication available in the region. Without fear of being mistaken we can affirm that the growth of the market of Chimbote has importantly determined the agricultural development of the valleys of Casma and Viru located to the south and north of this port.

The population increase in the cities of Trujillo and Lima has also fostered agricultural prosperity in the Viru Valley. The Trujillo case is important to mention, because, while its population has increased 160% between 1940 and 1961, there has been no increase in food crop cultivation in the Santa Catalina Valley close to the city, where growing sugar cane for industrial purposes remains the main agricultural activity.

In the same vein, we should mention the demand for Viru Valley crops for processing by plants in Trujillo and Lima. Fruits and vegetables are canned in Trujillo, for example.

Hybrid corn is ground into corn meal; sorghum grain is mixed into chicken feed, and the fiber is used for making brooms in factories in Lima. According to the bulletin of the Agrarian Inspection and Control Bureau, these two valleys occupy, among all the valleys of the Peruvian coast, the first and fourth place with regard to the area under food crops. (Table No. 7).

In the Viru valley the farmers have gone far beyond subsistence agriculture, because both the owners of minifundios and medium and large proprietors work the land for commercial ends. The commodities are sent to the market almost in their totality, especially in the case of the large proprietors who work their lands as productive enterprises.

The most important innovations are:

- 1) Use of subterranean water for irrigation. Its use for domestic and agricultural purposes was begun in 1958, but has been intensified since 1961, reaching the greatest number of installations in 1964. At present there are several wells which are being drilled and excavated, besides the respective installations of pumps, especially in areas occupied by colonos, who were formerly forbidden by the hacienda owners to install pumps.

It is estimated that in the valley there are one hundred and forty-six (146) wells and pumps, those belonging to haciendas being the most powerful. The cost of installation varies between

\$1,492 - \$5,597 each, according to their power and to the volume of water pumped.

2) Replacement of the traditional crops by others for which there is a greater demand and which have a larger yield, such as maize, manioc and sweet potatoes.

Cotton has been replaced by food crops, especially by maize. The machinery and equipment that served for the cultivation of cotton is stored on the haciendas. We consider statistical reports on the cultivation of cotton to be exaggerated, and not accurately reflecting the current pattern of cropping of the valley.

Two other products whose areas of cultivation have been considerably reduced are sugar cane and rice, which are cultivated only on two haciendas which process them for exportation to the national market.

The cultivation of native maize is reduced more each year. The maize sown by all haciendas and proprietors who pursue commercial ends is hybrid corn,^{4/} whose cultivation has become wide-spread since 1961 and has become even more general during 1964 by the great demand in the market. In spite of good prospects, its cultivation seems limited due to the scarcity of seed and the high cost of fertilizers. Furthermore, this maize has enjoyed great acceptance among the farmers because its yield is superior and its maturation is faster than is the case with traditional maize.

According to the production statistics of the Trujillo office of the Departmental Agricultural Service, the following yields were obtained during the agricultural seasons of 1947-48 and 1961-62:

Table Number 15

Cultivation of Maize in the Viru Valley

<u>Season</u>	<u>Hectares</u>	<u>Total Production</u>	<u>Production per hectare</u>
1947-48	2,813	7,032,500 kilograms	2,500 kilograms
1961-62	4,431.52	12,408,260 kilograms	2,800 kilograms

The Table shows an increase of 57.54% in the area of cultivation and an increase of only 10.71% in yield per hectare in the valley. This Viru Valley yield is, however, more than twice the national average which is only 1328 kilograms per hectare (Ministerio de Agricultura, 1963: 13 and 37).

In 1961-62 the cultivated area of maize represents 53.72% of the cultivated lands in the valley.

According to personal investigations, in 1962-63 the yield of maize was 3,500 kilograms per hectare. The haciendas obtained the greatest yields, as we saw when considering production at the district level. The local people estimate that 60% of the total of the land under cultivation is dedicated to maize.

The area of cultivation of mandioc and sweet potatoes has increased since 1959. Since 1950 manioc began to be commercialized

and produced in quantity, because a new variety was introduced whose roots develop like potato tubers, thus making harvest simple. The native manioc, on the other hand, has very deep roots making harvest difficult.

With regard to citrus fruits, a variety of seedless juico oranges has been obtained. This variety is inaccurately called 'huandos'^{2/} and is in great demand at the markets, as are the tangerines.

3) Introduction of new types of crops. Since 1950 new types of crops demanded by the national market, for example sorghum, asparagus, potatoes, pineapples and tomatoes, have been introduced and are cultivated on an increasingly large scale. These agricultural products do not appear in the report of Nunez del Prado (1951:27-42) which was written on the basis of information gathered in 1947. This evidence permits us to conclude that they were introduced after 1947.

Broom corn is known in the locality as maicillo. It was introduced in 1961 and its cultivation became widespread in the valley due to the demand in the Lima market and also because its maturation requires only three to four months. Various farmers who dedicate themselves to the intensive cultivation of broom corn have direct and permanent contracts with broom factories in Lima.

Two asparagus packing factories caused the cultivation of this plant to become widespread in the Viru Valley in 1960 because the factories offered advantageous contracts to the farmers, who, in addition, were enthusiastic over the ease with which this plant could be cultivated. In the Viru Valley alone there are 300 hectares of asparagus. The producers of this vegetable are going through a crisis however due to the fact that the factories cannot purchase all the production and find it impossible to complete their purchase contracts. We already foresee that many will plow under their asparagus crops and substitute maize.

The intensive cultivation of potatoes began in 1962 on Hacienda Santa Elena in the valley. In view of the success achieved, the owners continued increasing the area planted to potatoes. Several farmers have followed this example, also with positive results, until it seems that potato cultivation is becoming wide-spread. An average yield of 22,000 kilograms per hectare is obtained and the production is taken to the markets of Trujillo, Chiclayo and Chimbote.

Pineapple and tomatoes were introduced into Viru Valley agriculture in 1950-51. During the first years many farmers applied themselves to such cultivation, but faced with successive failures due to the instability of the market price little by little they have come to replace these crops by maize and broom corn.

4) New technological elements and the mechanization of agriculture. The introduction of new varieties and types of crops has caused the introduction of new techniques and the use of new agricultural elements. For example, hybrid corn has required the adoption of new techniques of cultivation and harvesting, and of the use of select seed, fertilizers, insecticides, fungicides, etc. For the harvest, although it is limited, the reaper has been adopted. To shell the corn they use machines, and several haciendas have machines which sort the kernels of maize according to size.

The use of tractors for plowing and weeding is very widespread. Several farmers engage in the business of renting their tractors at \$2.60 per "fanegada" or three hectares of land. In 1947, it cost \$5.60 to \$6.72 per "fanegada." (Hunez del Prado, 1951:28). The plows pulled by animals are few and only used by the small farmers.

One of the most important changes has occurred in the shelling of maize. The techniques of "garroto" and "trilla", - shelling with stick and donkeys - so well described by Hunez del Prado (1951:32) are no longer used. On some fundos, dismantled maize shelling platforms stand as a simple reminder of a technique fallen into disuse. In 1964, maize was shelled by machine shellers which were rented at fifteen cents per "fanega" or one hundred kilogram sack. Five Virunereros were

in the shelling business, going to the fundos and chacras with their own equipment.

5) Technical assistance. Eight agronomists give professional service to the haciendas and farms of the valley. The majority of them are the innovators and executors of the technological changes that are occurring in the valley, because the other farmers, especially the colonos, imitate them after having observed them and being sure of the success of an innovation.

Here it is necessary to indicate that technical assistance from state agencies is practically nil. With the exception of the Maize Program of the National Agrarian University, the work of SIPA (Agricultural Research and Promotion Service) has produced no visible results except for a brief period in 1962 when it advised members of the Agricultural Cooperative of the Valley of Viru and Chao so that they could obtain a bank loan.

The innovations in agriculture which have been produced in the Viru Valley have brought about the following results:

a) An increase in agricultural production through the intensification of agriculture giving rise to up to two harvests per year on the same land. This has been achieved by using land for fast-maturing crops, such as maize and broom corn, and by the use of subterranean water for irrigation.

b) Better working opportunities which have decreased emigration and stimulated immigration of rural people, of specialists and of professional technicians. The rural people come from the sierra region and do farm work, such as lateral ditch cleaning, preliminary soaking, crop irrigating, etc.; the specialists are culturally Creoles from the coast and sierra regions who do specialized work, such as tractor drivers, mechanics, overseers; and finally, among the professionals are the agronomists.

c) Increase in salaries. In January - April of 1947, the daily salary was nine cents (09¢) (Munoz del Prado, 1951:10); and in June - September of 1964 it was fifty-six cents (56¢). Thus there has been an increase of 500% in the last seventeen years, which must be directly related to the two preceding changes which took place from this date until 1964 and the devaluation of the Peruvian Sol relative to the U.S. dollar.

d) An economic bonanza, observed during 1964 among the proprietors of the haciendas, fundos and fields. An index of this bonanza is the celebration of numerous religious and civic festivals, not only in the town but also on each of the haciendas and annexes. Also, another index would be the investments made in the installation of water pumps, and to acquire new agricultural equipment and means of transportation,

e) Improvement in the means of transportation. During the last seventeen years there has been without a doubt a spectacular development in the means of transportation in the valley and in the District. It is enough to say that the first motorized public vehicle, a four cylinder Ford, arrived in Viru in 1926. In 1947 it had already been replaced by ten trucks, one automobile, one jeep and two buses (Munoz del Prado, 1955:55). And in 1964, without counting hacienda vehicles, just in the town there were ten collective automobiles and station wagons for daily service to the Puente de Viru, eight collective automobiles which go to Trujillo, three buses which travel through the neighboring haciendas and go to Trujillo, and five trucks which transport cargo to Trujillo or Lima. To those can be added the private vehicles: nine pick-up trucks, eight automobiles and station wagons, and six old, small trucks for transporting cargo between the town and the ranchos.

f) The increase in commerce as a result of the economic bonanza. The businessmen of the valley are going through an excellent financial period. To show this it is enough to cite the case of beer consumption which according to the only distributor in Viru has reached an average of 3,000 dozen large bottles per month at a value of \$6,269 wholesale. The greatest consumption is during festivals; for example, in the three days

of the Fiestas Patrias (Independence Celebration) of 1964, 1,500 dozen bottles were consumed. In accordance with this data, in the valley the people drink about 36,000 dozen bottles of beer per year at a value of \$75,224.00 wholesale and \$80,597.00 at retail prices.

Not only the beer distributors obtain fat profits, but also the "businessmen" or middlemen of the agricultural products. Three Viruneros serve as middlemen and through their hands circulate over \$100,000 per year, during the transactions realized in the retail markets of Chiclayo, Chimbote and Lima

g) Other economic activities have appeared in connection with agriculture. They are numerous but aviculture, which began to prosper after 1962, particularly stands out. In the valley there are eight chicken growing enterprises, the majority of them located near the town of Viru. The growers buy chicks from the chicken breeders of Trujillo, Lima or Chimbote, work at fattening the chickens and producing eggs. The largest establishments have 20,000 fowl and periodically sell from 1,500 to 2,000 chickens in Chimbote. The fowl are fed with lowest quality maize from the chicken raisers' own harvests, mixed with specially balanced prepared chicken feed they purchase.

h) Interest in formal and professional education. Unlike many Andean districts with a smaller number of inhabitants, Viru has produced only six liberal professionals (who live elsewhere), five of them offspring of immigrants. This shows that there was previously little interest in formal education for children, but happily it now constitutes an aspiration of parents, be they small proprietors or colonos who are already sending their children to the primary and secondary schools of Viru, Trujillo and Chimbote. There are several university students who participate actively in the "cooperatives".

SUMMARY

The conclusions derived from this study are the following:

First. That the system of land tenure determines the type of local and regional social stratification. In the case of Viru, where there are lands exploited by their proprietors and lands exploited in an indirect form, there are the following social groups:

1. Large proprietors
2. Lessees or tenants and rich colonos
3. Hacienda employees and public servants
4. Merchants, chauffeurs, owners of barber shops and small artisans
5. Colonos and aparceros
6. Poons
 - a) stable or firm
 - b) contracted
 - c) free
 - d) serfs
7. Servants

The large proprietors are the owners of farm land which they themselves exploit. Naturally, among the proprietors are sub-groups according to the amount of land they possess. The owners of haciendas and farms occupy the highest position,

and the owners of minifundium are at the opposite extreme and have the same status as the colonos. The power and the social status of the proprietors are in relation to the size of their properties.

The owners of haciendas and farms are treated with respect by the people of the region, who use the Spanish respect title don when speaking to them. These proprietors are the "learned men" of the society, especially when they have been to the university.

The lesscos occupy the position next to the large proprietors, since they can become proprietors of the real property they manage, as has happened on various occasions. In this way they enjoy the same privileges as the hacienda owners, especially when they are long-time residents of the locality or region.

The employees include those in charge of the supervision of the operations of the haciendas and farms and also Government employees. In the first group are the managers, administrators, and cashiers, etc., and in the second are the teachers, policemen, etc. All of the above are, in a certain way subordinate to the large proprietors, except when they are outstanding professionals, such as agronomists or school principals. The large proprietors who live in the valley, and the medium proprietors and the "rich" colonos who live in the town are those who take part actively in the public life of the District, since from

them come the greater part of the authorities whose activities are regulated, directly or indirectly, by the former.

The merchants, chauffeurs, owners of barber shops, artisans, etc. are striving only to accumulate money in order to become proprietors. They are, therefore, cordial with all social groups in order to obtain maximum utility from them. They are the shock-absorbers, the intermediaries between the dominant and the dominating. They are those who do not have land and in order to be able to use it must become colonos and aparceros. They occupy a position inferior to that of employees, but in practice belong to one of the subordinate group.

With the exception of the colonos who are Virunereros from birth and of the colonos and small landholders who live in the town, the presence of the aparceros and colonos as a group is not felt in the valley, because they live isolated from each other, occupied with their farming activities. This isolation is accentuated by the fact that the majority of the colonos and aparceros are immigrants or descendents of immigrants. A similar situation was found by Munez del Prado in 1947 (1951:13-14).

Traditionally, in order to reach the position of colono, an individual must previously work as a peon on the hacienda, a period which serves to instruct him about the system and allow

him to cultivate amity with the manager of the hacienda. According to the type of relations that are attained, he can obtain a larger or smaller amount of new lands which he must convert into cultivable land. There still live in the valley colonos and widows who arrived over thirty years ago and testify that they began as peons and now enjoy a large income after many years of sacrifice.

Until fifteen years ago, when the proprietors were not afraid of agrarian reform, the aparcerero peasant could easily become a colono, but now he has become an aparcerero outcast because the proprietors do not allow him to work on the same lot more than one season. The migratory aparcerero who does not have a permanent dwelling in the valley lives with his family during the agricultural season, in a hut constructed next to his working area. Few aparcereros have a fixed residence, since they cannot find a place nor land.

The peons occupy the next-to-lowest position of the local social strata. They are those without land who live by day-wages. They are almost all immigrants. There are four sub-groups of peons:

- 1) Stable peons
- 2) Contracted peons
- 3) Free peons
- 4) Peon - serfs

The stable peons are those who work or reside in a permanent way on the haciendas or farms, but their numbers are much reduced because the hacienda owners prefer contract peons. They and their families occupy the group of laborers' huts located near the hacienda houses. The salary of a stable peon is between fifty-six cents (56¢) and sixty-seven cents (67¢) per day, plus the mid-day meal and the social benefits recognized by national laws. According to the employers, the peons cause a daily expense of eighty-three cents (83¢) including the salary, mid-day meal and social benefits.

The contract peons are temporary workers, laborers brought by contractors who recruit people to work for a set time, usually a month, on the haciendas with which they have a contract. The laborers come from backward hamlets and haciendas of the Department of Lambayeque and Pura and also of the Province of Huamachuco in La Libertad Department. The first group are known as "northerners" and the second as "serranos" (from the sierra region). The hacienda owners prefer the contract peasants for the following reasons: the work goes faster, since the contractor supervises the contracted laborers who are paid at task- or piece-work rates; and because in this way the employers evade paying into the social security fund the contributions due on long-term employees, which mount cumulatively with length of service.

The contractors are a new version of the traditional "con men" or "crimps". They receive a certain sum for each contract they obtain, in addition to a salary for supervising the work which they assign at piece-work rates.

The contract peasants receive \$1.12 per day without meals or other benefits. While working they spend their nights in large courtyards or "corrals" where they form a type of camp with huts of dry corn stalks and branches: there they cook, amuse themselves and drink when they have finished their duties.

The free peons, the poor immigrants who recently arrived in the valley, serve the small and medium proprietors, especially during the periods of harvest and ground-breaking. The salary they receive is fifty-six cents (56¢) daily (between June and August of 1964) with the mid-day meal or seventy-four cents (74¢) without the mid-day meal.

The peon-serfs are Sierran families who live within private property or under colonato, who in exchange for the parcel of land which they occupy and on which they construct their huts, raise fowl and maintain a small garden, become a sort of servant to the proprietor or manager. They receive the same salary as the free peasant, but cannot make any personal decisions without the authorization of the patron whom they are obliged to serve. Patrons help each other by lending serfs and these can only go where they are ordered.

Domestic servants have the lowest social position. They are women and boys who have come from the highlands or are peons' sons. They work for the first three groups and rich colonos. When the boys become adults they usually become aparceros.

In summary, in the social aspect the patrons of the land tenancy system define a rigid social stratification, because property grants to its possessors a high social status and political power. A case which occurred in 1962 demonstrates this. The proprietors of a fundo were opposed to their workers' forming unions and expelled their leaders under threat of a lock out. Another example of their exercise of power was the case of a family that had municipal control for fifty-five years.

Second. That the large proprietors are active agents of technological change. It has been seen that the haciendas and fundos converted into agricultural production enterprises have obtained the greatest technical progress with consequent increase in production. This has caused the haciendas and fundos to become true centers of experimentation and demonstration for the rest of the farmers of the valley, especially the colonos. This great technological advance is not matched by a comparable social advance since, with few exceptions, the living conditions of the braceros are extremely poor; this situation cannot change due to the competition caused by the great increase in migrants coming to work at any salary whatsoever.

Third. That the economic development of a region does not necessarily require the displacement of its rural population, as some specialists in development theory think necessary. (Higgins 1959:454.55). In the Viru case the peasants have not been displaced up to now even though agricultural operations are being mechanized and becoming more extensive in nature. On the contrary, the rural population in this valley has increased 35% between 1940 and 1961 (Table Number 10). Possibly the rate of increase has become greater since 1961, precisely because the agricultural development in the valley has attracted to it migrants - specialists and peasants who come from less economically favored regions.

As we have already said, the economic growth of the Viru Valley has occurred because of technification and diversification in the extensive and intensive use of its agricultural lands. This implies that those lands were previously poorly cultivated, inasmuch as present yields of local agricultural commodities such as maize are higher than before per hectare as well as in volume of cultivation and total amount harvested.

Fourth. That the coastal population, with migrants of different origins, constitutes a "coastal" ethnic and cultural group with very specialized characteristics. Viru is characterized by its abundance of migrants from different regions of the country, and also from other continents - Asia and Europe.

There is a mixture of coastal Indians, Andean Indians, coastal Creoles, urban people, Negroes, Europeans, Asians, etc., and there is also a high rate of illegitimacy; 56% of the children born in 1963. In the last fifty years there have been, in the district of Viru alone, 355 family names belonging to 451 families of different origins. Only twelve family names are native to Viru.

Apart from the biological, the migrants have brought with them many cultural elements which have combined with the local ones originating a new social and cultural complex, that which we call "coastal", which we will discuss in the future.

REFERENCES

1. The reasons why the geneological technique was not applied in Viru are discussed in the work entitled: "Application of the Geneological Method and Technique in the communities of Peru:!"
2. Data taken from the bulletin published by the Board of Agrarian Inspection and Control of the Ministry of Agriculture, 1962 (see No. 5 of the bibliography).
3. Data collected in the Departmental Office of the Ministry of Agriculture in Trujillo, from its archives and from a wall table on public view.
4. For a list of the varieties of hybrid maize in the North Peruvian Coast, see Anonimo 1962:38-40.
5. "Virunenses." A term utilized by some residents of the town of Viru with the object of differentiating themselves from those who live in the country, who are called "Viruneros".
6. La Industria, Trujillo Sept. 2, 1965, p. 7 (daily).
7. Nunez del Prado (1951:16-20) has good information about real property transference in Viru.
8. This extension was estimated by the Army Geographic Institute (Instituto Geografico Militar del Peru) at October 1964.
9. This name is used because the first oranges of this variety were grown on the Huando Hacienda; now their cultivation is widespread in Peru.

GLOSSARY

Aparcero	Sharecropper.
Banco de Fomento Agropecuario del Peru -	Peruvian Government bank which gives loans to farmers and cattlomen.
Bracero	Unskilled farm worker.
Colono	Farmer who has estate lands for an indefinite period and gives the landlord the third, fourth, or fifth part of the gross production.
Fundo	Agricultural properties of 100 to 500 hectares, where the owner resides.
Hacienda	An estate (a manor).
Mestizo	Historically, a person of mixed Spanish and Indian ancestry in the Spanish colonies. Contemporaneously, in Peru a person of Western culture, non-Indian.
Minifundium	System of small holder agriculture in which production units are uneconomically small.
Peon	A wage laborer, frequently seasonal with no property rights.
Serrano	Highlander (connoting something of the "hillbilly" concept in Viru parlance).
Virunero	Native of the town of Viru.

BIBLIOGRAPHY

- Anónimo
1962 "Variedades Sintéticas de Maiz Amarillo",
Mensajero Agrícola, No. 149; (Lima) 38-40
- Comisión para la Reforma Agraria y la Vivienda
1967 La Reforma Agraria en el Perú. Documentos I.
Lima: Imprenta Casa Nacional de Moneda
- Ghorsi B, Humberto y Dobyns, Henry F.
1963 "Migración por etapas; el caso del valle de Virú",
Migración e Integración en el Perú. Lima:
Editorial Estudios Andinos, 128.132.
- Higgins, Benjamin
1959 Economic Development. New York: W.W. Norton
& Company
- Holmberg, Allan R,
1954 "Virú: sobrevivientes de un pueblo excelso",
Revista del Museo Nacional, Vol. XXIII (Lima), 56-89.
- Ministerio de Agricultura
1962 Dirección de Inspección y Control Agrario,
Departamento de control de cultivos alimenticios
obligatorios. Lima, (mimeografiado).
- 1961 Administración Técnica de Aguas de los ríos Moche y
Virú. Padron de Aprovechamiento de agua. Distrito
Agrícola del Valle de Viru (mecanografiado).
- Ministerio de Agricultura y Universidad Agraria
1963 Estadística Agraria 1963. Lima: Convenio
Cooperación Técnica.
- Nunez del Prado, Oscar
1951 Aspecto Económico de Virú. Cuzco

Perú, República de

1944 Censo Nacional de Población y Ocupación 1940.
Vol. I, Lima: Imprenta Torres Aguirre.

1947 Censo Nacional de Población de 1940. Vol. III,
Lima: Imprenta Torres Aguirre.

1964 Sexto Censo Nacional de Población de 1961.
Lima: Talleres Gráficos de la Dirección
Nacional de Estadística y Censos.

1964a Ley de Reforma Agraria No. 15037. Lima:
Editorial Mercurio S.A.

Santa María Calderon, Alfredo

1958 Irrigación de Chao y Virú, Mocho y Chicama.
Trujillo: Editora Norte

Stiglich, German

1922 Diccionario Geografico del Perú. Lima: Imp.
Torres Aguirre.